

**B16** Injector Adjust Shim Technical Instruction

# COMMON RAIL — INJECTOR PART

SKU1: G1L2B161001112

SKU2: G1L2B161002113

SKU3: N20000B2BB16500

SKU4: G1N21112131416



COMMON RAIL  
INJECTOR PART



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## B16 Injector Adjust Shim Technical Instruction

### 1. B16 Injector Adjust Shim Introduction

#### 1.1. B16 Injector Adjust Shim Basic Information

Title	B16 Injector Adjust Shim	Quality
SKU1	G1L2B161001112	China Made New
SKU2	G1L2B161002113	China Made New
SKU3	G1N20B16100B2B	China Made New
SKU4	N20000B2BB16500	China Made New

#### 1.2. B16 Injector Adjust Shim Common Part Number

##### 1) Injector Adjust Shim Applicable Injector Model

Injector Part Number	Injector Part Number	Injector Part Number	Injector Part Number
0445110218	0445110219	/	/

##### 2) Injector Adjust Shim Matching Information

Vehicle Brand	Car Model	Engine Model	OE Number
JEEP	Cherokee 2.8 CRD 4x4	ENR	5142811AA
BMW	535 d	30 6D 4	7 792 096

##### 3) Injector Adjust Shim's Common Writing Methods

B16,

#### 1.3. B16 Injector Adjust Shim Parameters

Injector Adjust Shim Adaptation System: [Common Rail System](#)

Injector Adjust Shim Series: [CRI2](#)

Injector Adjust Shim Type: [Electromagnetic](#)

#### 1.4. B16 Injector Adjust Shim Specifications And Dimensions

Injector Adjust Shim Thickness: [1.11-1.20](#)

Single Injector Adjust Shim Weight: [0.4g](#)

Injector Adjust Shim With Packaging Weight: [40g](#)

Injector Adjust Shim Quality: [China Made New](#)

Injector Adjust Shim Packaging Size: [13\\*cm\\* 6cm \\*2cm](#)

Injector Adjust Shim Type: [High Pressure Common Rail Injector Adjust Shim](#)

Injector Adjust Shim Minimum Order Quantity: [100 pieces](#)

#### 1.5. B16 Injector Adjust Shim Quality Control

##### 1) Injector Adjust Shim Testing

All parts of the injector adjust shim have undergone electrical characteristics testing, precision testing,

high temperature testing, low temperature testing, withstand pressure testing, leakage testing, durability testing, and various working conditions testing.

## 2) Injector Adjust Shim Installation


In addition, the injector adjust shim production and installation process is quality controlled. Our company strictly follows the standard product installation data and product installation steps for installation, such as injector adjust shim stroke test, injector adjust shim solenoid valve tightening torque, injector adjust shim nozzle tightening torque.

### 3) Injector Adjust Shim Inspection

The factory inspection of the injector adjust shim has undergone three inspections: full inspection, random inspection, and batch inspection. Different brands of test benches are used to test the same injector adjust shim for more than three times for factory inspection, and the fuel injector installation testing environment are progressed in dust-free workshop.

### 1.6. B16 Injector Adjust Shim Customization Service

1) **Injector Adjust Shim Customization Service Coverage:** Meet OEM manufacturers' customization needs for shell engraving, logo engraving, injector adjust shim internal packaging, injector adjust shim external packaging and labels, etc.

NO.	1
Picture	
Name	Injector Adjust Shim Packaging

## 2) Injector Adjust Shim Customization Service Requirements:

The purchase quantity of customized injector adjust shim is not less than 10 pieces.




The purchase quantity of customized injector adjust shim boxes is not less than 1000 pieces.

- ⚠ When the customized products involve the need of specify logo, the OEM manufacturer is asked to provide trademark authorization and the sample of logo image file.
- ⚠ Once the customized injector adjust shim is sold, it can't be returned or exchanged if there is no quality problems.



## 1.7. B16 Injector Adjust Shim Parts List And Packaging Size

### 1) Injector Adjust Shim Parts List

NO.	1	2	3
Picture			
Name	Injector Adjust Shim Size	Injector Adjust Shim Thickness	Injector Adjust Shim Accuracy
Description	Φ 19.5* Φ 23	1.34-1.76	0.01 gear

⚠ Minors are prohibited from using the injector adjust shim assembly, O-ring, nozzle protective cover, injector adjust shim shell protective cover, oil return protective cover, VCI anti-rust bag, and bubble bag to avoid personal injury.

⚠ O-rings and nozzle washer shim are one-time installation accessories and need to be replaced when installed again.

⚠ The nozzle protective cover, injector adjust shim shell protective cover, and oil return protective cover are recyclable accessories and can be reused.

⚠ VCI anti-rust bags and bubble bags are non-degradable materials, please dispose of them properly after using.

⚠ The injector adjust shim and the installation part duct must be treated with appropriate sealing oil during installation.

### 2) Injector Adjust Shim Packaging Box Size



Pic No.1

NO.	Name	Injector Adjust Shim Packaging Size (cm)
1	Injector adjust shim packaging	13*6*2

### 1.8. B16 Injector Adjust Shim Testing Standards and Certificates

We can provide the factory quality inspection test report of each injector adjust shim to ensure that each injector adjust shim delivered meets the engine performance indicators.

BOTEN		测试报告		4.05.2019 10:42:09	
承准企业: _____ 电话: _____ 地址: _____ 传真: _____ 检测人: _____ 客户地址: _____ 检测单位: _____ 电话: _____ 客户姓名: _____ 传真: _____ 检测描述: _____ 检测名称: _____ 型号-零件号: _____ 检测商: _____					
<b>检测结果</b>					
检测标准号: C09002-6511 检测标准 检测项目 检测结果 检测标准 检测标准					
LSAR TEST:	30	4	4.5	20.0±1.0	✓
Bar:	30	4	15.0	20.0±1.0	✓
WPRM:	30	42.5±10.5	0.0	20.0±1.0	✗
Max:	231.5	218.8±14.4	0.0	20.0±1.0	✓
TL:	28.4	25.0±8.5	0.0	20.0±1.0	✓
EL:	14.1	15.0±4.8	0.0	20.0±1.0	✓
VE:	5.7	4.5±1.6	0.0	20.0±1.0	✓
检测日期: _____ 检测地点: _____ <input type="checkbox"/> 合格 <input type="checkbox"/> 不合格					

Pic No.2

### 1.9. B16 Injector Adjust Shim Warranty Instructions

#### 1) Product Warranty Conditions And Instructions

It is necessary to provide pictures, videos, or test reports tested by the injector adjust shim inspection equipment when the injector adjust shim is abnormal during use as evidence to feed back to the salesman. Abnormal conditions are properly explained such as: 1.Smoke, 2. Engine shake, 3. Difficulty starting the engine, 4. Engine noise, 5. Oil leakage etc.

#### 2) Injector Adjust Shim Warranty Coverage

- ① After customer receives the B16 injector adjust shim within 15 days , if there is a performance failure and the product has no damage on surface, customer can choose to replace it or repair it;
- ② If the B16 injector adjust shim has performance problems during the warranty period (3 months), and it is confirmed to be product's problems after being tested, you can contact our salesmen to replace the same model or a reworked product with the same performance for free;
- ③ If the injector adjust shim shell has obvious scratches, it can only be repaired and it will be returned as it is if the product is confirmed to be fault-free.

**⚠ Tips:** For products not covered by warranty, our company can provide paid maintenance services. For products after paid repaired, the same performance problem will have a free warranty period within 3 months from the date of repairing.

### 3) Injector Adjust Shim Is Not Covered By Warranty

- ① The warranty period has expired.
- ② Injector adjust shim failure caused by high temperature, high pressure, humidity, rain and snow, saline-alkali land, earthquake, and used in abnormal environment.
- ③ Customer disassembles or repairs the injector adjust shim personally resulting in damage to the injector adjust shim.
- ④ Injector adjust shim damage caused by man-made reasons (throwing, strong magnetic field magnetization, set fire).
- ⑤ Injector adjust shim failure or injector adjust shim damage caused by non-injector adjust shim design, technology, manufacturing, quality and other issues.
- ⑥ Injector adjust shim failure due to system pressure exceeding system approved pressure.
- ⑦ Injector adjust shim failure caused by system voltage exceeding approved voltage.
- ⑧ Injector adjust shim failure caused by impurities (water, lead, aluminum powder, iron powder, sulfide) in the system fuel exceeding the standard requirements.
- ⑨ Injector adjust shim failure caused by not installing according to the tightening torque specified in the vehicle engine maintenance manual (the tightening torque is too large or too small).
- ⑩ Injector adjust shim failure caused by not following the installation angle specified in the vehicle engine maintenance manual.
- 11 Injector adjust shim failure caused by not following the cleaning requirements specified in the vehicle engine maintenance manual.
- 12 Injector adjust shim failure caused by failure to replace consumable parts as specified in the vehicle engine maintenance manual.
- 13 Injector adjust shim failure caused by not complying with the intake system fit clearance and exhaust system fit clearance requirements specified in the vehicle engine maintenance manual.
- 14 Failure to replace the consumable parts and the fitting clearance of the oil inlet system pipeline and the injector adjust shim connection in accordance with the fuel intake system specified in the vehicle engine maintenance manual.

#### 1.10. B16 Injector Adjust Shim Manufacturer

**Injector Adjust Shim Manufacturer:** Shenzhen Shumatt Technology Co., Ltd

## 2. B16 Injector Adjust Shim Technical Support

### 2.1. B16 Injector Adjust Shim Installation Precautions

- 1) The replacement of the injector adjust shim must strictly follow the electrical system, the approved pressure of the low-pressure fuel intake system, the approved pressure of the high-pressure fuel circuit system, and fuel system replacement consumables requirements (including the low-pressure fuel circuit system filter and the high-pressure fuel circuit) specified in the vehicle engine maintenance manual.
- 2) Replacement of wearing parts of the fuel system, cleaning requirements for the connection between the fuel system and the injector adjust shim, the fitting clearance of the injector adjust shim

connection, the installation angle and tightening torque of the injector adjust shim, the fitting clearance of the intake system, and the fitting clearance of the exhaust system to ensure the service life of the engine and the normal operation of the injector adjust shim.

- 3) When installing the injector adjust shim on the engine, it is necessary to clean the engine block, cylinder head and other parts connected to the injector adjust shim, and ensure that there is no dust, carbon deposits, water, rust spots, etc.
- 4) Before installing, check whether the injector adjust shim washer shim has been replaced and installed on the injector adjust shim.
- 5) When installing the injector adjust shim, apply lubricant between the injector adjust shim, fuel nozzle sealing washer shim and O-ring.
- 6) Without replacing new washer shim can lead to: deformation of the tight cap of nozzle, deformation of nozzle, deformation of nozzle orifice, oil leakage and air leakage, which will cause serious damage to the injector adjust shim and nozzle to break and cause damage to the engine.
- 7) When installing the injector adjust shim on the engine, please carefully check the components related to the installation of the injector adjust shim, such as the injector adjust shim pressure plate, screw, injector adjust shim rod and other accessories are not deformed, and install it in strict accordance with the operation steps of the engine maintenance manual.
- 8) It is forbidden to operate the bare injector adjust shim for a long time in an environment with serious dust pollution and corrosion to iron products.
- 9) It is forbidden to operate the bare injector adjust shim for a long time in a strong magnetic field environment.

## 2.2. Reasons for B16 Injector Adjust Shim Not Working Normally

- 1) There is air in the oil circuit of the engine fuel system.
- 2) Vehicle injector adjust shim oil supply system is not normal.
- 3) Engine common rail system oil leakage or pressure limiting valve damage.
- 4) There is a short circuit, cutting out and poor contact in the wiring harness connected to the injector adjust shim of the vehicle.
- 5) The long-term placement of the injector adjust shim causes the anti-rust oil to solidify, and the internal components are stuck or the oil holes are blocked.

**⚠ Before installing, carefully check whether other components in the common rail system are damaged so as to prevent the injector adjust shim from not working properly after being replaced.**

## 2.3. Causes of B16 Injector Adjust Shim Being Damaged

- 1) Didn't operate properly according to engine maintenance manual during disassembly or installation, resulting in damage to the injector adjust shim .
- 2) The fuel oil used for the vehicle does not meet the standard cause damage to the injector adjust shim, such as: the water content in the fuel oil exceeds the standard, iron powder, aluminum powder, sulfide impurities exceed the standard, etc.
- 3) The engine is not regularly maintained according to the engine maintenance manual (please refer to the vehicle maintenance manual for the maintenance mileage). For example, failure to replace the lubricating oil of the engine system for a long time will cause abnormal wear of the engine, excessive exhaust gas volume or a large amount of carbon deposits inside the engine. The filter is not replaced during maintenance or the replaced filter cannot reach the original filter standard. all above reasons can cause damage to the injector adjust shim.



- 4) The abrasion of the oil pump produces iron powder and aluminum powder enter the injector adjust shim and cause damage to the injector adjust shim.
- 5) The deformation and abrasion of fuel tank result in iron powder or aluminum powder entering the injector adjust shim and causing damage to it.
- 6) The injector adjust shim is damaged due to replacement or adjustment of the relevant parts of the injector adjust shim. For example, the valve clearance does not meet the standard after the engine is repaired, the replacement or modification of the wiring harness connected to the injector adjust shim fails to meet the original standard.
- 7) The engine is overheated and overloaded for a long time working results in damage to the injector adjust shim.
- 8) The injector adjust shim will be damaged naturally at the end of its working life.
- 9) The injector adjust shim is magnetized (injector adjust shim parts' magnetic exceeded) causing the injector adjust shim to not work properly.

**⚠ Before replacing the injector adjust shim, please check the engine parts carefully according to the engine maintenance manual to avoid the injector adjust shim being damaged again after replacement.**

#### 2.4. B16 Injector Adjust Shim Storage Standards

##### 1) Choose a Suitable Storage Place

The warehouse and cargo yard where the injector adjust shims are stored should be kept clean and dry, and away from the factory buildings that generate harmful gases and dust; do not mix with acid, alkali, salt and other substances; the storage place should have a good drainage system; the cargo yard should be flattened with gravel or furnace ash etc. to enhance the water permeability of the surface layer to keep the reservoir area dry.

##### 2) Strict Storage Requirements

Strict inspections should be carried out when the injector adjust shims are put into storage, the surface cleaning work should be done well to remove water traces, oil stains, ash and other dirt, remove the rust and do anti-rust treatment in time. Packaged injector adjust shims must be protected from damage.

##### 3) Keep The Warehouse Dry And Do Moisture-proof Work

The relative humidity is usually below 70% for the injector adjust shims placed in the room, and the corrosion of the injector adjust shims is significantly reduced.

Injector adjust shims must be stored in the warehouse, and they are forbidden to store in the same warehouse with commodities with high water content.

##### 4) Stack Properly

After the injector adjust shim is exposed to rain, the corrosion rate will increase significantly. The purpose of sealing is to isolate the injector adjust shim from rainwater and humid air, so the warehouse window should be checked in time to avoid rainwater entering the warehouse.

If the injector adjust shim package is damaged, it should be repaired or replaced; when the package is damp, the packaging material should be dried; if the original anti-corrosion and oil applied at the factory is found to be damaged or dried up, it should be cleaned and re-applied oil in time.

**⚠ It is forbidden to leave the injector adjust shim exposed in the air for a long time.**

- ⚠ It is forbidden to store acid, alkali, salt and other substances together with the injector adjust shim.
- ⚠ The unpacked injector adjust shim must be rust-proof during secondary storage.

## 2.5. B16 Injector Adjust Shim Technical Support Obtaining Methods

- 1) Injector Nozzle Technical Data: <https://www.injectorpart.com/download/>
- 2) Injector Nozzle Technical Videos: <https://www.injectorpart.com/videos/>
- 3) Injector Nozzle Encyclopedia: <https://www.injectorpart.com/category/news/encyclopedia/>

## 3. B16 Injector Adjust Shim Purchase And Delivery

### 3.1. B16 Injector Adjust Shim Purchase And Payment Term

**Payment Method:** T/T, Paypal, Alipay, WeChat

- ⚠ Please contact our salesmen for specific payment information.

### 3.2. B16 Injector Adjust Shim Main Sales Markets

**Main Sales Markets Of Injector Adjust Shims:** Asia, Europe, North America, South America, Africa etc.

### 3.3. B16 Injector Adjust Shim Declaration Requirements

We can assist customers to provide the following documents for import customs clearance: contract, invoice, packing list, bill of lading, insurance policy, certificate of origin, etc.

### 3.4. B16 Injector Adjust Shim Shipping Ways

**Destination in China areas:** SF Express, Debon Express, the corresponding logistics company can be provided according to customer requirements in special cases.

**Destinations out of China's areas:** DHL, UPS, FedEx, TNT air, ocean or other shipping methods required by customers.

### 3.5. B16 Injector Adjust Shim Delivery Time

**Delivery Time:** Send out within 3 – 7 working days after receiving payment (Except for special products and special cases).

### 3.6. B16 Injector Adjust Shim Logistics Time for Destination Out of China's Areas

**DHL Logistics Time:**

Country or Region of Departure	Hong Kong, China	Other Countries or Regions of Asia	Australia and New Zealand	Europe	America	Other Countries
China's Mainland	7 Days	7 Days	8 Days	8 Days	8-12 Days	7-10 Days

**UPS Logistics Time: Country or Region of Departure: China's Mainland**

Country of Destination	Estimated Arrival Time	Country of Destination	Estimated Arrival Time	Country of Destination	Estimated Arrival Time
Japan	3 Days	UK	5-7 Days	Egypt	5-7 Days
Turkey	5-7 Days	Singapore	3 Days	Switzerland	5-7 Days
Bahrain	5-7 Days	Latvia	7-10 Days	New Zealand	7-10 Days
Sri Lanka	5-7 Days	Thailand	3 Days	Austria	5-7 Days

Romania	5-7 Days	Vietnam	3-5 Days	Estonia	5-7 Days
Malaysia	3-5 Days	Israel	5-7 Days	Mexico	7-10 Days
France	5-7 Days	America	5-7 Days	United Arab Emirates	5-7 Days
Italy	5-7 Days	Netherlands	5-7 Days	Bengal	7-10 Days
Lebanon	5-7 Days	Philippine	3-5 Days	Greece	7-10 Days
South Korea	3 Days	Spain	5-7 Days	Myanmar	5-7 Days
Canada	5-7 Days	Germany	5-7 Days	Saudi Arabia	7-10 Days
Portugal	5-7 Days	Australia	5-7 Days	South Africa	7-10 Days
Denmark	5-7 Days	Belgium	5-7 Days	Ukraine	7-10 Days
India	7-10 Days	Qatar	7-10 Days	Poland	5-7 Days
Indonesia	3-5 Days	Morocco	7-10 Days	Pakistan	7-10 Days
Kuwait	7-10 Days	/	/	/	/

⚠ The logistics time is for reference only, subjects are according to the actual arrival.

### 3.7. B16 Injector Adjust Shim Shipping Package

**Domestic express packaging:** Usually wrapped in waterproof scotch tape.




**International express packaging:** Wrapped with waterproof yellow tape after wrapping the black protective film.

**Pallet Shipping:** Use fumigation free and recycling trays that meet export requirements, and use white wrapping protective film to wrap and bind with cable ties for the outside, also, the products can be packaged according to customers' requirements.

⚠ The packing tray is made of plastic and can be recycled.

⚠ Transparent tape, yellow tape, black wrapping protective film, white wrapping protective film are non-degradable materials, please dispose of them properly.

⚠ Minors are prohibited from using transparent tape, yellow tape, black wrapping protective film, and white wrapping protective film to avoid personal injury.

No.	1	2	3
Image			
Name	Domestic Express Packaging	International Express Packaging	Pallet Shipping
Description	Wrapped by transparent tape	Wrapped with yellow tape after wrapping black protective film	Use pallet that meet export requirements, and use white wrapping protective film to wrap and bind with cable ties

#### 4. Company Information



Pic No.3

##### 4.1. Company Introduction

📞 **Mobile Phone/WeChat:** +86-13410541523

📞 **Hong Kong Mobile Phone:** +852-67653519

☎ **Tel:** +86-755-23215133

📍 **Shenzhen Office:** 11-12, Floor 14, Building 13, Qinchengda Building, Exit A, Honglang North Subway Station, Bao'an District, Shenzhen, China Mainland



📍 **Shenzhen Office:** Exit C, Qiao Touxu Metro Station, No. 66 Chongqing Road, Fuhai Avenue, Bao'an District, Shenzhen, China Mainland

📍 **Hong Kong Office:** Jianfa Street Industrial Zone, Tuen Mun, New Territories, Hong Kong, China

📍 **After-Sales Service Address:** Please contact our salesmen to obtain and provide the corresponding product maintenance reasons (Reference: [1.9. B16 Injector adjust shim Warranty Instructions](#) )

#### 4.2. Contact Information

Name	WeChat/ WhatsApp
Ruby	+86-13410541523

#### 5. Copyright Statement

All content on [www.injectorpart.com](http://www.injectorpart.com) is sourced from and belongs to Shenzhen Shumatt Technology Co., Ltd. [www.injectorpart.com](http://www.injectorpart.com) has been authorized to use this content. Shenzhen Shumatt Technology Co., Ltd. holds all rights to the "*B16 Injector adjust shim Technical Instruction*." Any reproduction, distribution, or public display of this material must clearly acknowledge Shenzhen Shumatt Technology Co., Ltd. as the source. Unauthorized use or failure to comply with these conditions will constitute a violation of the "Copyright Law of the People's Republic of China" and other relevant international laws and regulations.