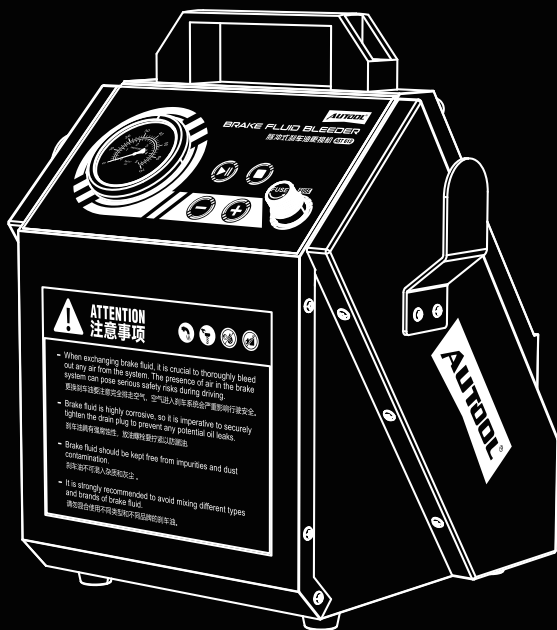


## AUTOOL AST612

Brake Fluid Bleeder

User Manual

用户手册





## 深圳市偶然科技有限公司

广东省深圳市宝安区航城锦驰产业园

📍 Hangcheng Jinchí Industrial Park, Bao'an, Shenzhen, China

🌐 [www.autooltech.com](http://www.autooltech.com)

✉ [aftersale@autooltech.com](mailto:aftersale@autooltech.com)

☎ +86-755-2330 4822 / +86-400 032 0988

企业标准 / Corporate standard: Q/OR 001-2023



## COPYRIGHT INFORMATION

---

### Copyright

- All rights reserved by AUTOOL TECH. CO., LTD. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of AUTOOL. The information contained herein is designed only for the use of this unit. AUTOOL is not responsible for any use of this information as applied to other units.
  - Neither AUTOOL nor its affiliates shall be liable to the purchaser of this unit or third parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of: accident, misuse, or abuse of this unit, or unauthorized modifications, repairs, or alterations to this unit, or failure to strictly comply with AUTOOL operating and maintenance instructions.
  - AUTOOL shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as original AUTOOL products or AUTOOL approved products by AUTOOL.
  - Other product names used herein are for identification purposes only and may be trademarks of their respective owners. AUTOOL disclaims any and all rights in those marks.
- 

### Trademark

Manual are either trademarks, registered trademarks, service marks, domain names, logos, company names or are otherwise the property of AUTOOL or its affiliates. In countries where any of the AUTOOL trademarks, service marks, domain names, logos and company names are not registered, AUTOOL claims other rights associated with unregistered trademarks, service marks, domain names, logos, and company names. Other products or company names referred to in this manual may be trademarks of their respective owners. You may not use any trademark, service mark, domain name, logo, or company name of AUTOOL or any third party without permission from the owner of the applicable trademark, service mark, domain name, logo, or company name. You may contact AUTOOL by visiting AUTOOL at <https://www.autooltech.com>, or writing to [aftersale@autooltech.com](mailto:aftersale@autooltech.com), to request written permission to use materials on this manual for purposes or for all other questions relating to this manual.

## CAUTIONS

---

### Warning



Before using the instrument, please read this manual carefully for proper operation.

- ▶ Before commencing installation, carefully inspect the equipment inventory. If you have any uncertainties, do not hesitate to immediately get in touch with the dealer or AUTOOL company.
- ▶ During the replacement of brake fluid, closely monitor all connections for leaks and check the condition of the connecting pipelines. If any irregularities or issues are observed, halt the replacement immediately.
- ▶ Any residual brake fluid on the equipment during operation should be promptly wiped clean to avoid localized chemical reactions that may affect the equipment's appearance.
- ▶ It is strictly prohibited to place wiping cloths used for motor oil, fuel, or solvents on the equipment.
- ▶ Prior to use, visually inspect the equipment for any damage. If damage is observed, do not use the equipment and contact a professional for repair.
- ▶ This equipment is designed for the exclusive purpose of changing automobile brake fluid. Any other use is strictly prohibited and may result in equipment damage.
- ▶ This equipment is intended for use with a 12V DC voltage only. It is strictly prohibited to use voltages of 24V/110V/220V/380V, as this may result in equipment damage.
- ▶ When using the equipment for the first time or when exchanging to a different type of brake fluid, it is necessary to purge the equipment and then drain the brake fluid into the recover bottle.

# TABLE OF CONTENTS

---

<b>Product Introduction</b> .....	2
Functional principle .....	2
Product functions .....	2
Product features.....	2
Technical specifications.....	2
<b>Product Structure</b> .....	3
Structure diagram.....	3
<b>Operations Instruction</b> .....	4
Basic operating procedure .....	4
Operation .....	4
<b>Maintenance Service</b> .....	6
Maintenance.....	6
<b>Warranty</b> .....	7
Warranty access.....	7
Disclaimer .....	7
<b>Return &amp; Exchange Service</b> .....	8
Return & Exchange.....	8

## PRODUCT INTRODUCTION

---

### Functional principle

The AST612 utilizes cutting-edge pulsating technology, continuously emitting pulses signals at regular intervals. These high-frequency pulses are employed to generate pressure within the brake fluid pipeline. The application of pulsations in the brake fluid exchange machine addresses the issue of air purging from the pipeline. Additionally, the powerful impact of these pulsations dislodges dirt and impurities adhered to the inner walls of the pipeline, thereby saving time and enhancing work efficiency.

---

### Product functions

- Adjustable pulsating oil exchange enables more thorough replacement of brake fluid.
  - Independent design for new and old oil pipelines: Prevents cross-contamination between new and old oil.
  - Corrosion-resistant oil pipelines: Combines durability, aesthetics, and portability.
- 

### Product features

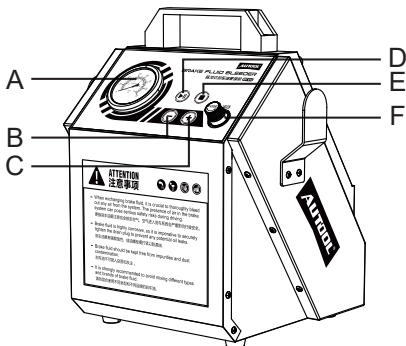
- The AST612 is controlled by a microcontroller, allowing for precise control of brake fluid pressure and flow rate. It boasts a high level of automation, enabling one-person operation and offering convenience, time-saving, and labor-saving benefits.
- 

### Technical specifications

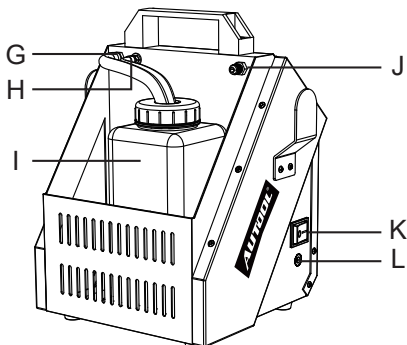
Power Supply	<b>DC 12V / 5A</b>
Operating Pressure	<b>1.5~3kg/cm<sup>2</sup></b>
Operating Temperature	<b>-10~+60°C</b>
Storage Temperature	<b>-20~+65°C</b>

# PRODUCT STRUCTURE

Structure diagram



<b>A</b>	Pressure Gauge	<b>B</b>	Pressure Adjustment “-”
<b>C</b>	Pressure Adjustment “+”	<b>D</b>	Start / Pause Button
<b>E</b>	Stop Button	<b>F</b>	Fuse



<b>G</b>	Inlet Hose	<b>H</b>	Pressure-balance Hose
<b>I</b>	New Oil Bottle	<b>J</b>	Output Hose
<b>K</b>	Power Switch	<b>L</b>	Power Interface

## OPERATIONS INSTRUCTION

---

### Basic operating procedure

- Upon factory shipment, this equipment is preconfigured with a default working pressure of 1.5 kg/cm<sup>2</sup>. This setting is carefully chosen to maintain the integrity of the automotive oil storage tank during fluid exchange, thereby ensuring a secure seal for the secondary sealing ring. Moreover, it is possible to adjust the working pressure for performing air bleeding or fluid exchange under various working pressure.
- 

### Operation

#### NOTE

- ▶ Vehicle ignition is not required.
- 
- Lift the car to an appropriate height to raise the wheels off the ground.
  - Add an adequate amount of new brake fluid into the equipment's new fluid storage tank and connect it to a 12V car battery.
  - Turn on the "Power Switch", and you will hear a buzzer sound as a reminder when the machine starts up.
  - Connect the appropriate adapter to the outlet hose.
  - Press the "Start" button on the control panel to begin by bleeding air from the product's outlet hose. When the adapter on the outlet hose has flowed the new brake fluid, press the "Stop" button.
  - Connect the outlet hose, equipped with the adapter, to the vehicle's brake fluid reservoir.
  - Connect the equipment's oil bottle to the brake master cylinder on the car wheels and loosen the bleed screw on the brake caliper.
  - Press the "Start" button again to initiate the brake fluid replacement process.
  - During the fluid exchange, monitor the brake sub-cylinder fluid outlet. If the fluid flow is too slow, press the "+ Pressure Adjustment" button to increase the pressure for fluid injection. If it's too fast, press the "- Pressure Adjustment" button to reduce the pressure for filling.

- After use, press the “Stop” button to turn off the machine. Wait for 15 seconds, then check if there is any pressure reading on the pressure gauge. If there is no pressure reading, remove the adapter from the car’s brake fluid reservoir and then disconnect it from the outlet hose.
- Turn off the machine and unplug it from the power supply.

## MAINTENANCE SERVICE

---

Our products are made of long-lasting and durable materials, and we insist on perfect production process. Each product leaves the factory after 35 procedures and 12 times of testing and inspection work, which ensures that each product has excellent quality and performance.

---

**Maintenance** To maintain the performance and appearance of the product, it is recommended that the following product care guidelines be read carefully:

- Be careful not to rub the product against rough surfaces or wear the product, especially the sheet metal housing.
- Please regularly check the product parts that need to be tightened and connected. If found loose, please tighten it in time to ensure the safe operation of the equipment. The external and internal parts of the equipment in contact with various chemical media should be frequently treated with anti-corrosion treatment such as rust removal and painting to improve the corrosion resistance of the equipment and extend its service life.
- Comply with the safe operating procedures and do not overload the equipment. The safety guards of the products are complete and reliable.
- Unsafe factors are to be eliminated in time. The circuit part should be checked thoroughly and the aging wires should be replaced in time.
- Adjust the clearance of various parts and replace worn (broken) parts. Avoid contact with corrosive liquids.
- When not in use, please store the product in a dry place. Do not store the product in hot, humid, or non-ventilated places.

## WARRANTY

---

From the date of receipt, we provide a three-year warranty for the main unit and all the accessories included are covered by a one-year warranty.

---

### Warranty access

- The repair or replacement of products is determined by the actual breakdown situation of product.
- It is guaranteed that AUTOOL will use brand new component, accessory or device in terms of repair or replacement.
- If the product fails within 90 days after the customer receives it, the buyer should provide both video and picture, and we will bear the shipping cost and provide the accessories for the customer to replace it free of charge. While the product is received for more than 90 days, the customer will bear the appropriate cost and we will provide the parts to the customer for replacement free of charge.

### **These conditions below shall not be in warranty range**

- The product is not purchased through official or authorized channels.
- The product breakdown because the user does not follow product instructions to use or maintain the product.

---

We AUTOOL pride ourselves on superb design and excellent service. It would be our pleasure to provide you with any further support or services.

---

### Disclaimer

All information, illustrations, and specifications contained in this manual, AUTOOL reserves the right of modify this manual and the machine itself with no prior notice. The physical appearance and color may differ from what is shown in the manual, please refer to the actual product. Every effort has been made to make all descriptions in the book accurate, but inevitably there are still inaccuracies, if in doubt, please contact your dealer or AUTOOL after-service centre, we are not responsible for any consequences arising from misunderstandings.

## RETURN & EXCHANGE SERVICE

---

### Return & Exchange

- If you are an AUTOOL user and are not satisfied with the AUTOOL products purchased from the online authorized shopping platform and offline authorized dealers, you can return the products within seven days from the date of receipt; or you may exchange it for another product of the same value within 30 days from the date of delivery.
- Returned and exchanged products must be in fully saleable condition with documentation of the relevant bill of sale, all relevant accessories and original packaging.
- AUTOOL will inspect the returned items to ensure that they are in good condition and eligible. Any item that does not pass inspection will be returned to you and you will not receive a refund for the item.
- You can exchange the product through the customer service center or AUTOOL authorized distributors; the policy of return and exchange is to return the product from where it was purchased. If there are difficulties or problems with your return or exchange, please contact AUTOOL Customer Service.

<b>China</b>	400-032-0988
<b>Oversea Zone</b>	+86 0755 23304822
<b>E-mail</b>	aftersale@autooltech.com
<b>Facebook</b>	<a href="https://www.facebook.com/autool.vip">https://www.facebook.com/autool.vip</a>
<b>YouTube</b>	<a href="https://www.youtube.com/c/autooltech">https://www.youtube.com/c/autooltech</a>

# 目 录

---

<b>版权信息</b> .....	10
版权.....	10
注册商标.....	10
<b>注意事项</b> .....	11
警告.....	11
<b>产品简介</b> .....	12
功能原理.....	12
产品功能.....	12
产品特点.....	12
技术参数.....	12
<b>产品结构</b> .....	13
结构图.....	13
<b>操作说明</b> .....	14
基本操作流程.....	14
操作.....	14
<b>维修保养服务</b> .....	15
维修保养.....	15
<b>保修服务</b> .....	16
保修方式.....	16
声明.....	16
<b>退换货服务</b> .....	17
退换货.....	17

## 版权信息

---

### 版权

- 版权所有! 未征得深圳市偶然科技有限公司的书面同意, 任何公司或个人不得以任何形式(电子、机械、影印、录制或其他形式)对本说明书进行复制和备份。本手册专为偶然公司产品的使用而计, 对于将之用于指导其他设备操作而导致的各种后果, 本公司不承担任何责任。
- 因使用者个人或第三方的意外事故, 滥用、误用该设备, 擅自更改, 或修理该设备, 或未按偶然公司的操作与保养要求而导致设备损坏、遗失所产生的费用及开支等, 偶然公司及其分支机构不承担任何责任。
- **正式声明:** 本说明书所提及之其他产品名称, 目的在于说明该设备如何使用, 其注册商标所有权仍属原公司。
- 本设备供专业技术人员或维修人员使用。

### 注册商标


偶然公司已在中国及海外若干国家进行了商标注册, 其标志为 **AUTOOL**。本手册所提及之偶然公司其它商标、服务标志、域名、图标、公司名称均属偶然及其下属公司之产权。在偶然公司之商标、服务标志、域名、图标、公司名称还未注册之国家, 偶然公司声明其对未注册商标、服务标志、域名、图标、公司名称之所有权。本手册所提及之其它产品及公司名称的商标仍属于原注册公司所有。在未得到拥有人的书面同意之前, 任何人不得使用偶然公司或所提及的其它公司之商标、服务标志、域名、图标、公司名称。

您可以访问偶然网址: [www.autooltech.com](http://www.autooltech.com), 或发送邮件至: [aftersale@autooltech.com](mailto:aftersale@autooltech.com), 与偶然公司进行联系, 征得其手册使用权之书面同意。

## 注意事项

---

### 警告

 在使用产品前，请注意以下操作：

- ▶ 安装前应仔细检查设备清单。如有疑问，请立即与经销商或偶然公司联系。
- ▶ 更换制动液时注意各连接处是否泄漏，连接管路是否破损，如出现异常必须立即停止更换。
- ▶ 设备操作过程中设备上的制动液残留应及时擦拭干净，避免局部出现化学反应，从而影响产品外观。
- ▶ 严禁将用于机油、燃料、溶剂的擦拭布放置于设备上。
- ▶ 使用前通过目测检查本设备是否有损坏，若有损坏请勿使用并联系专业人员进行维修。
- ▶ 此设备为汽车制动液更换专用设备。严禁用作其它用途，否则将会造成设备损坏。
- ▶ 此设备仅用于12V直流电压。严禁使用24V/110V/220V/380V电压，否则将会造成设备损坏。
- ▶ 首次使用设备和更换其它型号制动液时，须先将设备排气，再将制动液排入集油壶内。

## 产品简介

### 功能原理

AST612采用全新的脉冲式技术，在一定时间间隔连续发出脉冲信号，持续高频地给制动液管道输出压力。脉冲在制动液更换机的应用解决了管道空气排空的问题，同时强大的冲击力也带走了附着在管道内壁的污垢和杂质，节约了工作时间，提高了工作效率。

### 产品功能

- 可调节脉冲式换油，更换制动液更彻底。
- 新、旧油管路独立设计，防止新、旧油交叉污染。
- 耐腐蚀油管，美观、耐用且移动方便。

### 产品特点

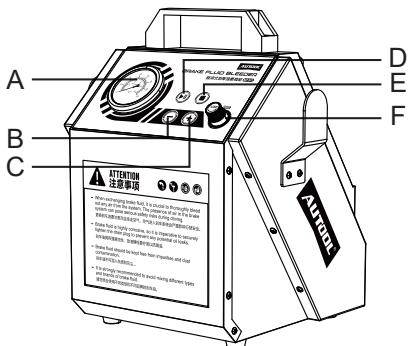
- AST612采用单片机控制，可以精确的控制制动液的压力、制动液的流量，自动化程度高，单人操作即可，使用便捷、省时、省工。

### 技术参数

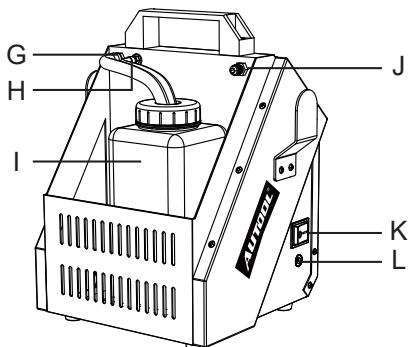
电源	DC 12V / 5A
工作压力	1.5~3kg/cm <sup>2</sup>
工作温度	-10~+60°C
存放温度	-20~+65°C

# 产品结构

## 结构图



<b>A</b>	压力表	<b>B</b>	压力调节“-”
<b>C</b>	压力调节“+”	<b>D</b>	开始/暂停按键
<b>E</b>	停止按键	<b>F</b>	保险丝



<b>G</b>	输入油管	<b>H</b>	压力平衡软管
<b>I</b>	新液存储罐	<b>J</b>	输出油管
<b>K</b>	电源开关	<b>L</b>	电源接口

## 操作说明

---

- 基本操作流程**
- 该装置出厂时，默认的工作压力设置为 $1.5\text{kg}/\text{cm}^2$ ，这样可以保证在换液时汽车储油壶不变形，进而确保二级密封圈的密封性。另外，可以通过压力调节按键，可在不同的工作压力下进行排气或更换制动液。
- 

## 操作

### 注意

- ▶ 不需要启动车辆。
- 
- 将汽车举升到合适的高度，使轮胎离开地面。
  - 往设备的新液存储罐倒入适量新制动液，连接12V汽车蓄电池。
  - 打开“电源开关”，开机时有蜂鸣器发声提醒。
  - 将适配接头与输出油管进行连接。
  - 按下控制按键板“开始”按键，先对产品的输出油管进行排空气操作，当输出油管上的接头已排出新制动液，按下“停止”按键。
  - 将装有适配接头的输出油管连接到车辆的制动液容器上。
  - 将产品的集油壶与汽车轮胎上的制动分泵连接，松开制动缸的排油螺丝。
  - 再次按下“开始”按键，更换制动液。
  - 换油过程中查看汽车刹车分泵出油口，如果出油太慢，按下“压力调节‘+’”按键，增大压力注入制动液；如果出油速度太快，按下“压力调节‘-’”按键，减少压力进行加注。
  - 使用完毕后，按下“停止”按键停止机器，等待15秒后，观察压力表是否还有压力显示，如无压力显示则将接头从汽车刹车油壶上拆下，然后将接头从输出油管上拆下。
  - 关闭机器，拔下机器电源。

## 维修保养服务

---

您所拥有的AUTOOL产品选用持久耐用的材料，AUTOOL坚持精益求精的生产工艺，每一件产品出厂都经过35道工序及12次质检工作，从而确保每一件产品都拥有卓越的品质及性能。所以您的AUTOOL产品值得您定期维护保养，使其产品将能够长期稳定地工作。

---

### 维修保养

维护保养是为了保持产品性能和外观，我们建议您仔细阅读以下产品保养指南：

- 注意不要将产品与粗糙表面摩擦或揉搓产品，特别是钣金外壳。
- 对产品中需要紧固和连接的部位经常进行检查，如发现松动应及时紧固，以保证产品的安全运行。对与各种化学介质接触的产品外部和内部零件要经常进行除锈、喷漆等防腐处理，以提高产品的抗腐蚀能力，延长产品的使用寿命。
- 遵守安全操作规程，不超负荷使用产品。产品的安全防护装置齐全可靠，及时消除不安全因素。电路部分彻底检查，老化电线要及时更换。
- 定期清洗和更换易耗部件；调整各部位配合间隙和更换磨损（已坏）部件清洁时，避免产品接触带腐蚀性的液态物品。
- 不使用时，请将产品存放于干燥的位置。不要将产品存放在高温、潮湿或不通风的地方。

## 保修服务

---

AUTOOL主机自客户签收日起享有3年保修期。其所含附件自客户签收日起享有1年保修期。

---

### 保修方式

- 根据具体的故障情况对产品进行免费修理或更换；
- 我方保证所有更换的部件、附件或产品都是全新；
- 在客户收到产品90天内出现故障同时提供视频和图片，我方承担运费并免费提供相应配件给客户更换。收到产品超过90天，客户承担相应的费用，我方免费提供配件给客户更换；

#### 以下情况不在免费保修范围：

- 非正规渠道购买AUTOOL的产品；
- 未按产品说明书要求使用和维护造成的损坏；

---

在AUTOOL，我们为精湛的设计和卓越的服务感到自豪。我们很乐意为您提供更多的支持或服务。

---

### 声明

偶然公司保留更改产品设计与规格的权利，届时恕不另行通知。实物外观与颜色可能与说明书中显示的有差别，请以实物为准。我们已尽最大努力力求使书中所有描述准确，但仍难免有不妥之处。如有疑问，请联系经销商或偶然售后服务中心。本公司对产品拥有最终解释权，不承担任何因误解而产生的后果。

## 退换货服务

### 退换货

- 如果您对从线上授权购物平台和线下授权经销商所购买的AUTOOL产品不满意, 根据《AUTOOL全球销售条款》, 您可以自收到产品之日起七日内退货; 或者在产品交付之日起的30日内调换等值的其他产品。
- 退回及调换的产品必须处于完全可销售状态, 并附上相关销售单单据, 所有相关配件、纸质发票 (如有)。
- AUTOOL将会对寄回退货的商品进行检查, 以确保其处于完好无损的状态并且符合条件, 相关条件详情请参阅《AUTOOL全球销售条款》。任何未通过检查的商品将退还给您, 您将不会获得商品退款。
- 您可以通过客户服务中心或AUTOOL授权经销商调换产品; 退换货原则为从哪里购买, 就从哪里退换货。如果您退换货遇见困难或者阻碍, 请联系AUTOOL客户服务中心。通过客户服务中心退换货时, 我们建议您通过下面的方式进行:

中国区域致电	400-032-0988 / 18929303778
售后微信号	18929303778
海外区域致电	+86 0755 23304822
E-mail	aftersale@autooltech.com
Facebook	<a href="https://www.facebook.com/autool.vip">https://www.facebook.com/autool.vip</a>
YouTube	<a href="https://www.youtube.com/c/autooltech">https://www.youtube.com/c/autooltech</a>

- 如您的退换货得到确认, 您将收到确认信息和邮件。