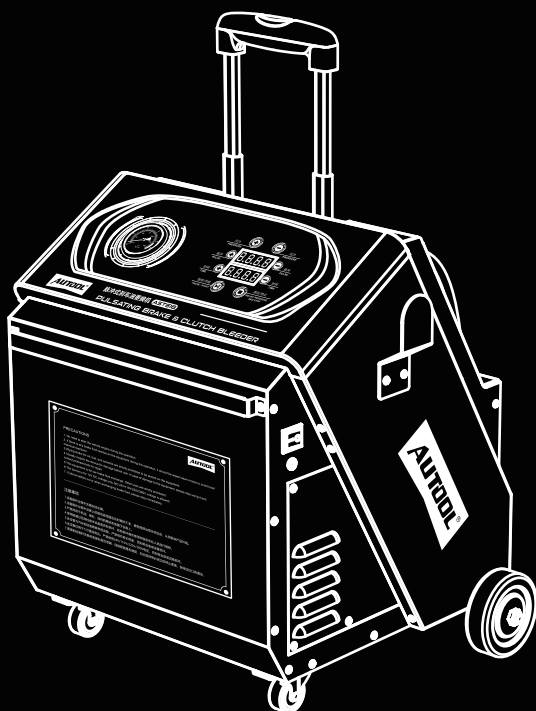


AUTOOL AST618

Pulsating Brake Oil Exchanger

User Manual

用户手册





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CAUTIONS

Warning



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

- ▶ No need to start the vehicle engine during the operation.
- ▶ If there is any brake fluid residue on the equipment during operation process, it should be wiped clean in time to avoid local chemical reactions, which will affect its appearance.
- ▶ Wiping cloths for oil, fuel, and solvents are strictly prohibited to be placed on the equipment.
- ▶ Visually inspect the device for damage before use. In case of damage to the equipment, please stop using it and contact professionals for repair.
- ▶ This equipment is for car brake fluid exchange only. Other uses are strictly prohibited. Otherwise, it will cause damage to the equipment.
- ▶ The device is for 12V DC voltage only. NO 24V/110V/220V/380V voltage is allowed. Otherwise, it will cause damage to the equipment.
- ▶ For the first time using the equipment and exchanging other types of brake fluid, the equipment must be bled air first, and then drain the brake fluid into the oil bottles.

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PRODUCT INTRODUCTION

Overview AUTOOL AST618 is performed by microcontroller, which can precisely control the brake fluid pressure, fluid flow and working time. It is highly automated and can be operated with one person. It is easy to use, time-saving and labor-saving.

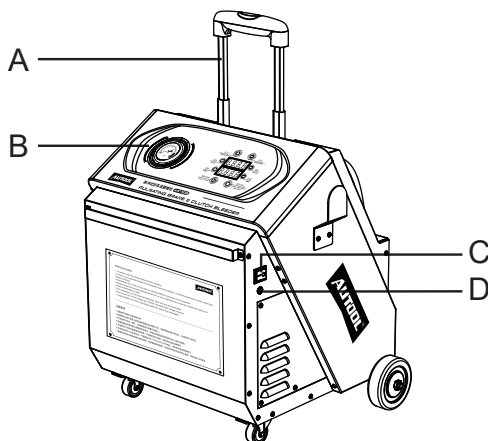
- Product features**
- Four sub-cylinders can be exchanged fluid simultaneously, which is fast and time-saving.
 - Adjustable pulsating fluid exchange can effectively clean the pipeline and exchange the fluid more thoroughly.
 - Highly efficient recovery function for simultaneous and rapid recovery of brake fluid.
 - Independent design of new and old fluid pipelines to prevent cross pollution of new and old fluid.
 - Adopting corrosion-resistant oil pipe, which is durable, nice-looking and easy to move.

Product introduction

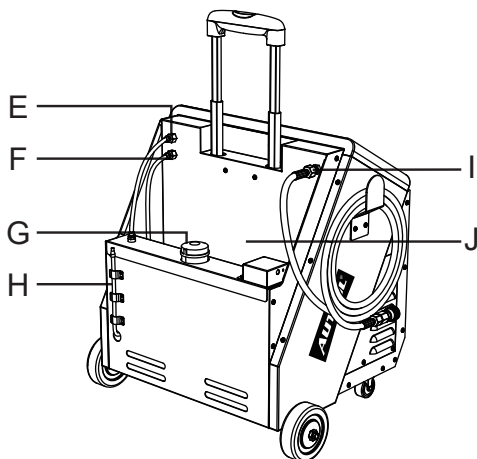
Input Voltage	DC 12V
Power	30W
Max. Flow Rate	1.6L/min
Pressure Range	0.6-3.0bar
Maximum Volume	3L
Cable length	3.5M
Length of oil tube	3.5M
Main unit dimension	515x438x550mm

PRODUCT STRUCTURE

Structure diagram

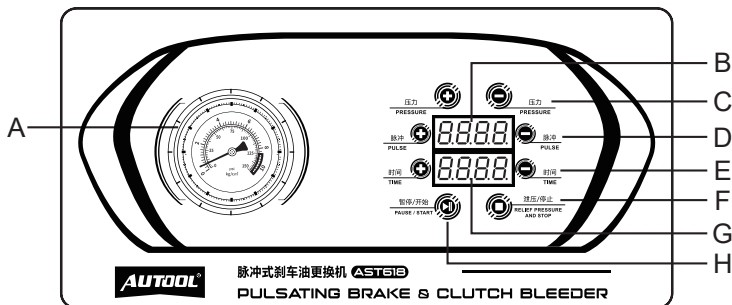


A	Tie rod	B	Control panel
C	Power Switch	D	Power Interface



E	Oil Outlet Tube	F	Oil inlet tube
G	Oil filling port	H	Level gauge and drain port
I	Oil pipes and quick connector	J	Fluid storage tank

Control panel



A	Pressure gauge	B	Pulse Adjustment Display
C	Pressure Adjustment	D	Pulse Adjustment
E	Work Time Adjustment	F	Relief Pressure And Stop
G	Pulse Adjustment Display	H	Pause / Start

OPERATIONS INSTRUCTION

How to adjust the working pressure correctly

- The default working pressure of the equipment is 1.5 kg/cm², which ensures that the car reservoir is not deformed during the fluid exchange and thus guarantees the tightness of the secondary seal ring. In addition, the pressure can be adjusted with the buttons "+" and "-", which allow air bleeding or fluid exchange at lower working pressures. In case of excessive pressure adjustment, it will cause damage to the brake master cylinder of the brake system.
-

Operate

NOTE

- ▶ No need to start the vehicle engine !
-
- Fill an appropriate amount of new brake fluid from the equipment's storage tank. Connect the 12V car battery, turn on the "power switch".
 - Press the "start" button. After the pressure is stable, use the "+" or "-" buttons to adjust the pressure and pulse. Select appropriate pressure and pulse to the vehicle for preparation, meanwhile, check if everything is correct with the equipment. Press the "Stop" button after it is done.
 - Connect the appropriate model connector to the quick connector of the oil outlet tube. Press the "Start" button until the new brake fluid is drained from the oil outlet tube. Drain it into the storage tank and last for about 10s. Press the "Stop" button after the air all bled out of the equipment, and tighten the cap of the storage tank immediately. (Note: for the first time using the equipment and exchanging other types of brake fluid, the equipment must be bled air first, and then drain the brake fluid into the oil bottles.)
 - Fill the car reservoir with new brake fluid until it is about to overflow. Connect the appropriate adapter to the filler of the reservoir on the brake master cylinder and install it tightly to make sure no air is inside.
 - Lift the car to the right height to Suspend the wheels off the ground.
 - Connect the four oil bottles of the equipment to the car brake sub-cylinders, and loosen the outlet screw of th sub-cylinders

to ensure that fluid can be flown out.

- Press the "Start" button to exchange the brake fluid.
- During the exchanging process, please observe the discharge status of the oil bottles of each sub-cylinder. The exchanging efficiency of the equipment can be regulated by adjusting the parameter of "pressure" and "pulse". The default fluid exchange time of the equipment is 1min, and the machine will stop working after 1 min. If the exchange process is not completed, please press the "Start" button to continue. If it runs out of fluid, an alert will be activated lasting for 3s and then the machine will automatically stop. After refilling the brake fluid, press the "Start" button to continue to complete the exchange.
- After the brake fluid is replaced, press the "Stop/Relief Pressure" button and wait for 10 seconds, and observe the pressure gauge to see if the pressure is zero. If there is still pressure, press the "Stop/Relief Pressure" button repeatedly until the pressure is zero. Then remove the joints and oil pipes connected with the car.
- After replacement, the fluid that remained in the oil bottles shall be cleaned up thoroughly and it must be drained out entirely from the storage tank. If remained brake fluid needs to be drained from the tank, press the "Start" button repeatedly to drain it from the outlet tube. In case of a low liquid level, it can be manually discharged from the drain port.

**Description
Of Brake
Fluid Bottle**

- Reservoir: Vehicle brake fluid canister
- Oil bottles: Recycle bottles for old fluid 4
- Fluid storage tank: For storing the new brake fluid

 Reminder

- ▶ During the exchanging process, please be aware of whether the connections have leakages and whether the connection lines are broken. If there is any abnormality, it is necessary to stop the exchange immediately and keep the filling port clean.

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 to 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.

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YouTube	https://www.youtube.com/c/autooltech

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-

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注意事项

警告

⚠ 在使用制动液更换机前，请注意以下操作：

- ▶ 设备操作过程中无需启动车辆。
- ▶ 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

概述

AUTOOL AST618采用单片机控制,可以精确的控制制动液的压力、制动液的流量和工作时间,自动化程度高,单人操作即可,使用便捷、省时、省工。

产品功能

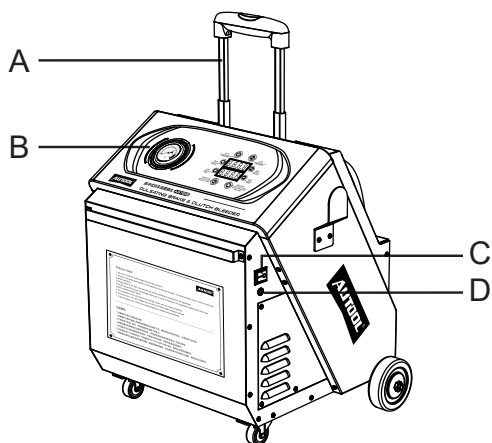
- 四个分泵同时换油,快捷省时。
- 可调节脉冲式换油,能够有效清洗管路、更换油液更彻底。
- 强劲的回收功能,能同时、快速地将制动液回收。
- 新、旧油管路独立设计,防止新、旧油交叉污染。
- 耐腐蚀油管,美观、耐用且移动方便。

技术参数

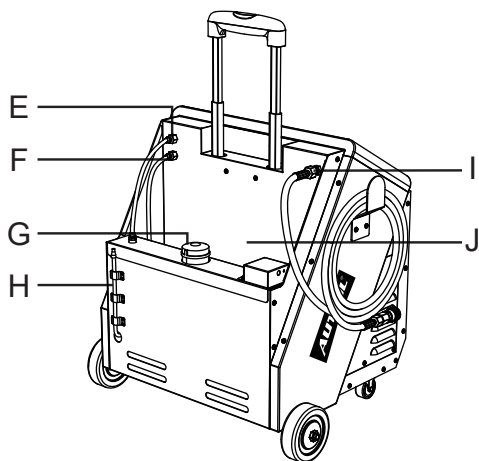
输入电压	直流12V
功率	30W
最大输出流量	1.6L/min
压力范围	0.6-3.0bar
最大容积	3L
电线长度	3.5m
输出油管长度	3.5m
主机体积	515*438*550mm

产品结构

结构图

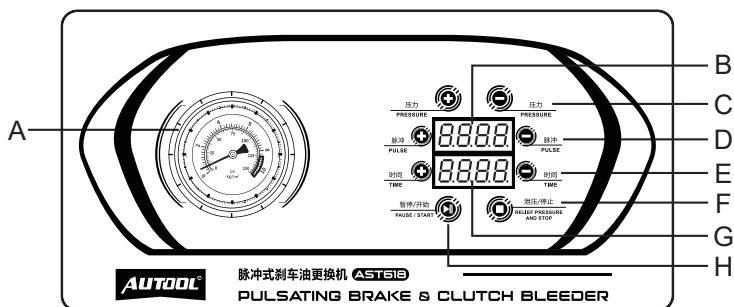


A	拉杆	B	控制按键板
C	电源开关	D	电源接口



E	回油管	F	进油管
G	加油口	H	液位视窗及排油
I	输油管及快速接头	J	储液罐

控制面板



A	压力表	B	脉冲调节显示
C	压力调节	D	脉冲调节
E	工作时间调节	F	停止/泄压按键
G	时间调节显示	H	开始/ 暂停按键

操作说明

正确调节 工作压力

- 该装置出厂时，默认的工作压力设置为 1.5 kg/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进行压力“+”“-”来实现在较低的工作压力下进行排气或换液，压力调节过大，会造成制动系统刹车总泵损坏。

操作步骤

注意

- ▶ 不需要启动车辆。

- 从设备的储液罐加注口倒入适量新制动液，连接12V汽车蓄电池，打开“电源开关”按键。
- 按下控制按键板“开始”按键，等待压力稳定后，调整压力“+”或“-”同时调整脉冲“+”或“-”选择适合车辆的压力和脉冲进行更换制动液准备工作，同时检测设备功能是否完好，完成此项工作后按下“停止”按键。
- 将匹配的车型接头，与输出油管的快速接头连接，按下“开始”按键，直到输出油管接口处排出新制动液，排入储液罐，排放十秒左右即可，设备排气完成后按下“停止”按键，并立即拧紧储液罐盖。（注意：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。）
- 将汽车储油壶加满新制动液至将要溢出的状态，连接适配的车型转接头到制动总泵上的储油壶加注口上，并且安装紧密，以保证壶内排气。
- 将汽车举升至合适高度，使车轮离地悬空。
- 将设备四个集油壶分别接在汽车制动分泵上，并松开制动分泵排油螺丝，确保有制动液流出即可。
- 按“开始”按键进行制动液更换。

- 更换过程中，观察汽车制动分泵的集油壶的排出情况，可以通过“压力”和“脉冲”调整参数控制换油的效率，设备默认换油时间一分钟，一分钟后机器会暂停更换制动液工作，如未完成可以按“开始”按键继续完成制动液更换，如果缺液机器会持续发出报警声音工作3秒后自动暂停，添加制动液后按“开始”按键可以继续完成制动液更换。
- 制动液更换完成后，按下“停止/泄压”按键等待10秒，观察压力表是否零压力，如果还存在压力可以循环按“停止/泄压”按键，直至压力为零。然后取下与汽车链接的接头和油管。
- 更换完成后，必须把集油壶里回收的制动液处理干净，并且把储液罐内剩余的制动液排出，如果需要排出机器内部残留制动液可以循环按“开始”按键从出油管排出，低液位时可以手动从排液口排出。

油壶说明

- 储油壶：车辆制动液壶
- 集油壶：回收汽车旧制动液壶4个
- 储液罐：设备盛装新制动液罐

友情提示

- 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，保持加注口的清洁。

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	https://www.facebook.com/autool.vip
YouTube	https://www.youtube.com/c/autooltech

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