

AUTOOL AST603

Brake Fluid Bleeder

User Manual

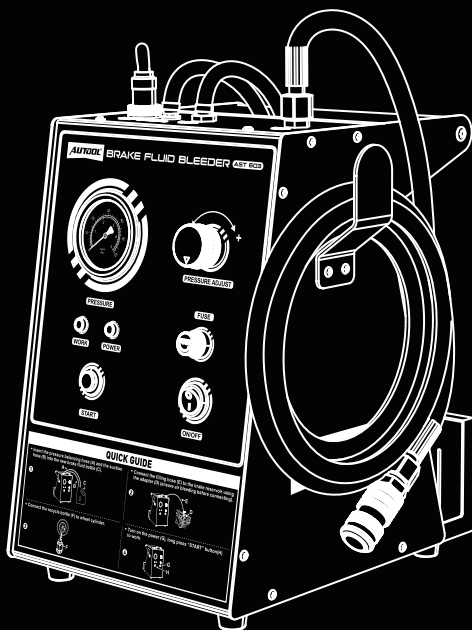


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SAFETY RULES

General safety rules



- ▶ Always keep this user manual with the machine.
- ▶ Before using this product, read all the operational instructions in this manual. Failure to follow them may result in electric shock and irritation to skin and eyes.



- ▶ Each user is responsible for installing and using the equipment according to this user manual. The supplier is not responsible for damage caused by improper use and operation.



- ▶ This equipment must only be operated by trained and qualified personnel. Do not operate it under the influence of drugs, alcohol, or medication.

- ▶ This machine is developed for specific applications. The supplier points out that any modification and/or use for any unintended purposes is strictly prohibited.

- ▶ The supplier assumes no express or implied warranties or liabilities for personal injury or property damage caused by improper use, misuse, or failure to follow safety instructions.

- ▶ This tool is intended for professional use only. Non-professional operation may result in injury to personnel or damage to tools or workpieces.



- ▶ Keep out of reach of children.



- ▶ When operating, ensure nearby personnel or animals maintain a safe distance. Avoid working in rain, water, or damp environments. Keep the work area well-ventilated, dry, clean, and bright.

Handling



- ▶ Used/damaged equipment must not be disposed of in household waste but must be disposed of in an environmentally friendly manner. Use designated electrical equipment collection points.

- ▶ Recycled waste oil should be handled as hazardous waste, for example, at pollutant transfer stations.
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Electrical safety rules



- ▶ This is a Class I equipment that must only be powered through a power socket with a protective grounding conductor. This connection must not be interrupted at any point (e.g., through extension cords). Any interruption or disconnection of the protective conductor may result in electric shock. Therefore, ensure the equipment/housing is correctly grounded in advance.



- ▶ Do not twist or severely bend the power cord. It may damage the internal wires. If the power cord shows signs of damage, do not use the brake fluid exchanger. Damaged cables pose a risk of electric shock. Keep the power cord away from heat sources, oil sources, sharp edges, and moving parts. Damaged power cords must be replaced by the manufacturer, its technician, or similarly qualified personnel to prevent dangerous situations or injuries.

Equipment safety rules



- ▶ Never leave the equipment unattended when it is powered on. Always turn off the equipment at the main switch and disconnect the power cord when not in use for its intended purpose!

- ▶ Do not attempt to repair the equipment yourself.

- ▶ Before connecting it to power, check that the socket voltage and fuse ratings match the values on the nameplate. Mismatch may cause serious hazards and equipment damage.



- ▶ It is essential to protect the equipment from rainwater, moisture, mechanical damage, overload, and rough handling.

Application



- ▶ Before use, check whether the power supply line, connecting hoses, and adapters are damaged. Do not operate the equipment if damaged.

- ▶ Use the equipment only in compliance with all safety instructions, technical documents, and vehicle manufacturer specifications.

- ▶ When adding supplementary fluids, only use brand-new and unopened products.

Personnel protection safety rules



► Replacing the oil used by the equipment can be harmful to health; avoid any contact.



► Always wear protective eyewear when replacing oil to prevent possible splashes into the eyes. If contact occurs, rinse with running water for several minutes with eyelids open. If symptoms persist, consult a doctor.



► Always wear protective gloves while working to avoid skin contact with oil. If skin contact occurs, wash immediately with soap and water. Immediately remove clothing or shoes contaminated with oil.


► Seek immediate medical advice if swallowed.

► Always ensure you have stable footing to control the equipment safely in case of an accident.

CAUTIONS

Warning



 Before using the brake fluid bleeder, please pay attention to the following:

- ▶ Improper use may lead to health hazards or property damage!
 - ▶ Brake fluid is toxic and may cause severe health damage!
 - ▶ Avoid contact with brake fluid.
 - ▶ Wear safety goggles to minimize the risk of injury from splashing liquids.
 - ▶ Wear appropriate protective gloves to minimize the risk of skin damage.
 - ▶ In case of skin contact with brake fluid, wash immediately with water.
 - ▶ Remove contaminated clothing.
 - ▶ Do not carry cloths or other items soaked with brake fluid in your clothing.
 - ▶ Disconnect the power plug before performing any work on the brake fluid bleeder.
 - ▶ Only plug the power plug into the socket when the brake fluid bleeder is disconnected from the power.
 - ▶ Do not make any structural changes to the brake fluid bleeder.
 - ▶ Inspect the brake fluid bleeder carefully before each use. If any abnormalities are found, do not continue using the machine.
 - ▶ Please have it repaired by a professional; do not attempt to open the machine yourself.
 - ▶ Do not wet the brake fluid bleeder, and do not operate the machine in a damp environment.
-

Use as directed



The brake fluid bleeder is only intended for filling and draining brake fluid in automotive braking and clutch systems. Any other use or use beyond the specified scope is considered improper and must be prohibited.

Predictable misapplication


- ▶ Operating the brake fluid bleeder with fluids other than brake fluid can damage the machine and must be prohibited.
- ▶ The manufacturer is not responsible for any damage resulting from improper use. The risks incurred are solely borne by the operator or carrier.

PRODUCT INTRODUCTION

Functional principles

The brake fluid is pumped from the new fluid container and continuously delivered to the vehicle's brake fluid reservoir at the specified pressure. Then, according to the vehicle manufacturer's prescribed sequence, the used brake fluid is drained from each wheel brake caliper until new brake fluid flows out. Compared to traditional pressurized brake fluid bleeder, this automotive brake fluid bleeder effectively prevents the formation of air bubbles during the filling process and optimizes or eliminates the need for manual bleeding procedures. Its built-in pressure monitoring device detects pressure formation; if pressure cannot be generated or if the pump draws in air, the pump will automatically shut off to prevent air from entering the vehicle's brake fluid reservoir.

Product functions

- Adjustable pulsating oil change can effectively clean the pipelines and ensure a more thorough fluid replacement.
- Powerful recovery function allows for simultaneous and rapid recovery of brake fluid.
- Independent design of new and used oil pipelines prevents cross-contamination between new and old fluids.
- Corrosion-resistant oil hoses are aesthetically pleasing, durable, and easy to move.

Product features

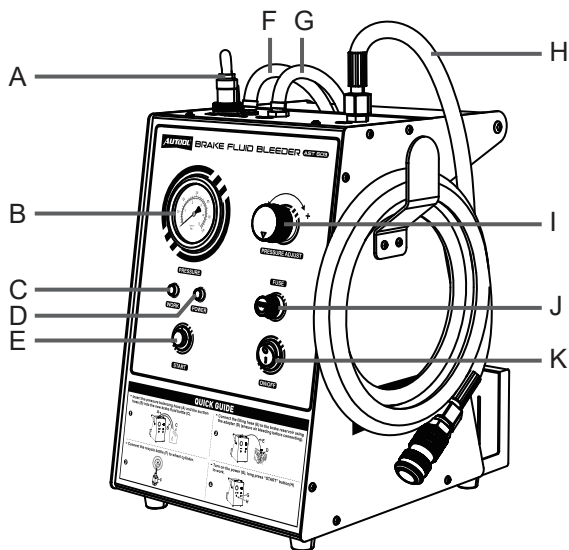
- Controlled by a microcontroller, the AST603 allows precise regulation of brake fluid pressure and flow. It has a high degree of automation, enabling single-person operation. This makes it convenient, time-saving, and labor-efficient.

Technical specifications

Power Supply	AC 110V/220V
Working Pressure	0.5-2.5Bar
Maximum Power	35W
Maximum Output Flow Rate	1.6L/min
Output Pressure	0.7-2.5Bar
Filling Hose Length	3.5m
Low Oil Protection	Supported
Operating Temperature	-10°C~+60°C
Storage Temperature	-10°C~+65°C

PRODUCT STRUCTURE

Structure diagram



A	Power Cable	B	Pressure Gauge
C	Work Indicator Light	D	Power Indicator Light
E	Start Button	F	Pressure Balance Hose
G	Suction Hose	H	Filling Hose
I	Pressure Regulation Knob	J	Safety Device
K	Power Switch		

BASIC OPERATING PROCEDURE

- First, connect the universal adapter to the quick-connect fitting of the filling hose. The pressure adjustment knob should be turned counterclockwise to the lowest pressure setting. Add new brake fluid to the new oil bottle. Press and hold the start button for 30 seconds until new brake fluid begins to flow from the adapter (The pipeline has been purged).
- Remove the adapter from the quick-connect fitting of the filling hose and connect the adapter to the vehicle's brake fluid reservoir. Then, connect the equipment's filling hose quick-connect fitting to the adapter.
- Press and hold the start button again for 10 seconds while simultaneously turning the pressure adjustment knob clockwise (adjust the pressure according to the pressure gauge based on the vehicle model). After 10 seconds, release the button to allow the equipment to operate normally (normal operation occurs when the pressure switch detects that the pressure is above 0.5 bar).
- There are two ways to stop the operation:
 1. Turn off the power.
 2. The equipment will automatically shut down when the fluid level in the new oil bottle is low and the pressure falls below the threshold.
- The device is factory-set to a default working pressure of 1.5 kg/cm². This setting ensures that the vehicle's brake fluid reservoir does not deform during fluid replacement, thereby maintaining the seal integrity of the secondary sealing ring. Additionally, the pressure can be increased (+) or decreased (-) by using the adjustment knob, allowing for bleeding or fluid replacement at lower working pressures. Excessive pressure adjustment may cause damage to the brake system's master cylinder.

OPERATING INSTRUCTIONS

Layout / Workstation

- Place the brake fluid bleeder on a flat and stable surface. During startup and operation, ensure that the vehicle's workstation is located near the brake fluid bleeder.
 - When the vehicle is lifted on a lift, make sure that the filling hose is connected to the vehicle without any stress concentrations, such as tangling or twisting.
-

Initial startup / Automatic purging

Warning

- ▶ In all cases, purging must be performed during the initial startup!
 - ▶ Before the first startup, compare the power supply voltage with the rated voltage on the machine's nameplate to ensure that the power supply voltage matches the nameplate (the nameplate is located on the back of the brake fluid bleeder) before starting the brake fluid bleeder.
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- Place the brake brake fluid bleeder securely on a flat surface.
 - Open the top cover of the new oil bottle.
 - Place the new oil bottle in the bracket of the brake fluid bleeder, adding new brake fluid to prevent spillage.
 - Insert the suction hose and pressure balance hose into the bottom of the new oil container. The suction hose is used to draw in new brake fluid. The new brake fluid that has been exported by the excess pressure will flow back into the new oil container through the pressure balance hose.
 - To purge the brake fluid bleeder, do not install the adapter on the vehicle initially. Instead, connect it only to the filling hose and attach it to an used oil container.
 - Connect brake fluid bleeder to the power supply and turn on the power switch. Press and hold the "Start" button to begin the pump operation.
 - Observe the outlet of the adapter connected to the used oil bottle until brake fluid flows out without bubbles.
 - Turn off the power switch and wait until the pressure value slowly drops to 0 bar before removing the adapter.

- At this point, the brake fluid bleeder has completed the purging process and is ready for use.

Replacing brake fluid

Warning

- ▶ Changing brake fluid must strictly adhere to the safety guidelines and specifications provided.
- ▶ Before starting work, pay attention to the vehicle manufacturer's instructions regarding the maximum filling pressure and any special operational guidelines.
- ▶ As a general rule, the guidelines and criteria for purging brake equipment provided by the manufacturer for each vehicle model are always applicable.
- ▶ If the manufacturer's guidelines and criteria for purging brake equipment do not specify a particular working pressure, adjust the pressure using the adjustment knob to 1.6-2.0 bar. For specific working pressures, use the adjustment knob as needed.

- Install the appropriate adapter on the vehicle's brake fluid reservoir.
- Connect the filling hose quick-connect interface to the installed adapter.
- Turn on the brake fluid bleeder and switch on the power.
- Press and hold the "Start" button until the pressure reaches at least 1.0 bar. At this point, use the adjustment knob to set the working pressure to the desired value (Pressure Building Step).

Warning

- ▶ If the pressure is successfully established, release the "Start" button; the brake fluid bleeder should continue operating. If the pressure is not established, release the "Start" button; the brake fluid bleeder will stop immediately.

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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