# Electric Brake Fluid Exchanger Operations Manual

Model NO.: DS-520

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Notice: All illustrations and information in this manual are for reference only. The products you have purchased may not be exactly the same as those described in the manual due to product improvements. If you have any questions please contact your local distributor or manufacturer.

#### **Safety Warnings and Precautions**

CAUTION: Qualified professionals shall carefully read all instructions in the manual before using this equipment. Our company shall not be responsible for any damage to the machine or accidental injury to personnel caused by the operation in violation of the instructions in the manual, which will also void the service within the warranty period .When using the equipment, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

- 1. **Keep work area clean.** Cluttered areas invite injuries.
- 2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use this equipment in the presence of flammable gases or liquids.
- 3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
- 4. Store idle equipment. When not in use, the equipment must be stored in a dry location to inhibit rust.
- 5. Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
- 6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
- 7. Use eye and ear protection. Always wear ANSL approved impact safety goggles. Wear an ANSI approved dust mask or respirator when working around chemical dusts and mists
- 8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
- 9. Maintain tools with care. Inspect tool cords and hoses periodically and, if damaged, have them replaced, or repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
- 10. Avoid unintentional starting. Be sure the air pressure is in the Off position when not in use and before making hose connections.
- 11. Stay alert. Watch what you are doing, use common sense. Do not operate any tool when you are tired.
- 12. Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
- 13. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of

any other parts will void the warranty. Only use accessories intended for use with this tool.

- 14. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
- 15. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.

#### **Brake Fluid Exchanger Safety Precautions**



CAUTION: This equipment is designed to be operated by qualified and trained personnel. It should only be operated after reading and understanding the safety warnings and operating procedures in this instruction manual and the vehicle's service manual.

1. Wear ANSI approved safety goggles.

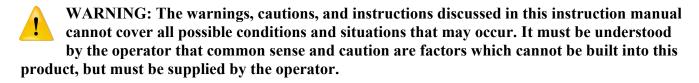


2. Do not smoke near this equipment. Keep a type ABC fire extinguisher nearby in case of fires.



- 3. Use in a well ventilated area.
- 4. When leaks are found in the equipment or hoses, immediately turn off the power and repair the leaks.
- 5. Immediately clean up any fluid spills or leaks.
- 6. Do not use any cleaning compounds in this system.
- 7. Prior to using the Brake Fluid Exchanger make sure to read and understand all warnings, safety precautions, and instructions as outlined in the vehicle manufacturer's service manual. Every vehicle has specific brake bleeding requirements. It is beyond the scope of this manual to properly describe the correct procedure for each vehicle.
- 8. Prior to using the Brake Fluid Exchanger, make sure to place the vehicle's transmission in "PARK" (if automatic) or "NEUTRAL" (if manual). Then, set the emergency parking brake and block the tires with chocks.
- 9. Use the Brake Fluid Exchanger only with brake fluid. Do not attempt to use the equipment to exchange any other liquids. Contamination of brake fluid and possible brake system failure may result.
- 10. Follow guidelines for proper brake fluid disposal. Used brake fluid should be properly disposed of or recycled. Contact your local solid/liquid waste authority for information on recycling. Do not reuse old brake fluid.

- 11. Do not use pressurized air to blow off brake dust. Only use brake parts cleaner to clean dust off the brake calipers.
- 12. Be alert for hot brake components and other hot vehicle components to avoid accidental burns.
- 13. Some brake pads contain asbestos. Asbestosis, a chronic lung inflammation, can result from prolonged inhalation of asbestos particles. Accordingly, wear appropriate ANSI approved respiratory devices and proper protective clothing when working near any brake pads.
- 14. Always keep brake fluid from contacting the vehicle's paint finish. Brake fluid will damage the paint finish on vehicles.
- 15. Make sure the air in the hose has been exhausted before using it for the first time.



#### **Product Functions**

Brake Fluid Exchanger press the used fluid out through the exhaust valve by the pressure produced from the exchanger when filling the vehicle liquid reservoir with new brake fluid. Instead of cooperation between two persons which might bring air in the exchanging process, the brake fluid exchanger will always keep the process orderly and effectively, saving man power and improving efficiency.

#### **Specifications**

Motor power	70W
Voltage	AC110V—220V
Working pressure	1-2.2Bar
Max. pressure	2.5Bar
Tank capacity	18L

#### **Packing List**

Equipment Body	1pc	Operations Manual	1pc
Used Fluid Collection Bottle	2pcs		
Rubber Squeeze Dropper	1 set		
Residual Liquid Collection Box	1pc		
Fluid Hose Hook	1pc		
Adapter Kit	1 set		

## **Operating Steps**

The red light on the equipment indicates high liquid level. When injecting new brake fluid to the tank, please stop injecting if the red light is on; Green light indicates low liquid level and new brake fluid needs to be injected to the tank when the green light is on.

Step	Content	Figure
1	Exhaust the air in the hose before using it for the first time.	
2	Set vehicle emergency brake and turn the engine off.	
3	Remove about 80%-90% used fluid by Rubber Squeeze Dropper to avoid mixing used brake fluid with the new.	
4	Open the adapter kit and find the adapter lid that looks like, and best fits the master cylinder of the vehicle and connect it to the brake fluid reservoir.	
5	Connect the fluid hose to the brake fluid reservoir adapter lid.	

6	Place the vehicle on a lift or safe vehicle stands in a well ventilated area for that it needs to be adjusted to different lifting height according to actual needs	
7	Unscrew the air bleed valve of the front / back wheel cylinders respectively and connect it with the used fluid collection bottles.	
8	Turn on the switch of the equipment; then adjust the tank pressure to 0.5-1.5 Bar by the pressure regulator. Must lower the pressure to avoid the rupture of the reservoir in master cylinder if it's too thin.  CAUTION: Never exceed 1.5 bar when working or damage may occur to equipment and connection hoses.	
9	Keep observing the color change of the fluid in the transparent hose of collection bottles to see whether the used brake fluid has been changed thoroughly.  CAUTION: It has been replaced thoroughly if the color of the brake fluid becomes clear from turbid.	

10	Tighten and check the air bleed valve bolt and fasten dust cover tightly after exchange.	
11	Then turn off the equipment switch and lower the vehicle to the ground.	
12	Start the engine and keep idling for 3 to 5 minutes; then gently step on the brake 5 to 8 times.	
13	Shut off the engine and add or reduce the brake fluid as appropriate according to the liquid level in reservoir.  CAUTION: The brake fluid shall not exceed the "MAX" warning line marked on the reservoir, nor lower than the "MIN" warning line.	The same of the sa

## **Storage and Maintenance**

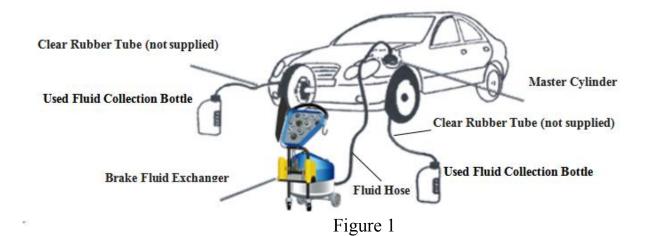
- 1. Clean up any brake fluid oil that may have spilled.
- 2. Wipe down the Brake Fluid Exchanger components with cloth.
- 3. Store the equipment in a clean and dry location when not use.
- 4. Equipment service and maintenance should be performed regularly by a qualified professional technician.



WARNING: Before performing any maintenance on the Brake Fluid Exchanger, verify that the Brake Fluid Exchanger is depressurized

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### **Figures**



Adapter Kit
Fluid Hose Hook
Add Brake Fluid Here
Power Switch
Start / Stop
Pressure Regulator
Low Liquid Level Light
Rubber Squeeze Dropper
High Liquid Collection Box
Figure 2

# **Adapter Kit Parts List**

No.	Suitable Vehicle Models	Adapter Lid
1	Benz, BMW, Porsche, Jaguar, Land Rover, the Great Wall Automobile, Changan Automobile, BYD, Peugeot, Buick, Ford, Hongqi, Changan Mazda 2, Changan Mazda 3, Haima Automobile, Roewe, Geely, Cadillac, Lexus, Qoros, MG, Volvo, Sail, Chery, FAW Volkswagen, SAIC Volkswagen, FAW Audi, Citroen, Chevrolet, Fiat Viaggio, China Motor, etc	
2	Beijing Electric Vehicle Series of BAIC, Dongfeng Yueda Kia, Subaru, JAC Motors, Renault, Hyundai, Roewe 550, Mitsubishi, Ssangyong, Infiniti, Some NISSAN Models	
3	Tesla, Cadillac, Dongfeng NISSAN Venucia, NISSAN Series, Ford Fiesta, Faw Mazda, Faw Besturn, Buick Excelle, Regal, LaCrosse, Envision, Buick Commercial Vehicle Series	
4	King Long School Bus, Gac Toyota, FAW Toyota, Toyota, Some Lexus Models	4
5	Dongfeng Honda, Gac Honda, Honda, Some BYD Models	5
6	Changan Automobile, Some Chinese brand electric vehicles	
7	Dodge, Chrysler, JEEP	

8	NISSAN	8
9	SAIC-GM-Wuling	
10	Fxauto	10
11	Tesla Model 3	
12	Southeast DX5, Southeast DX7, Changan Automobile	12
13	Ferrari, Maserati, Volvo, Renault, Ford, Scania	13
14	Renault, Fiat, Citroen, Iveco	14
15	Mitsubishi, Soueast, Lingyue	15



CAUTION: Please try the universal adapter lid if adapters above could not work.