

AUTOMATIC TRANSMISSION FLUID OIL EXCHANGER



Operation Manual
Model: GD-608

This manual contains all the important warning information, recommendations, assembly instructions, operation and service procedures.

We advise to keep the Operation Manual together with the purchase invoice.

Furthermore, we also suggest putting the invoice number here: _____

Disclaimer: all information, illustrations and specifications contained in this manual are based on the latest information available at the time of publication. We reserve the right to make changes at any time, but are not obliged to notify any individual or organization of such changes. For more detailed health and safety information, please contact the relevant government department or automatic transmission oil manufacturer if necessary. We shall not be liable for the errors and incidental or consequential damages contained herein (including loss of profits in connection with the configuration, performance or use of the equipment).

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WARNING INFORMATION FOR SAFE OPERATION – SAFETY PRECAUTIONS



Note: It is recommended to carefully read the Operation Manual before the first activation of the equipment. In order to reduce the risk of personal injuries and equipment damage during operating, always follow basic safety rules.

- 1) **Keep the workplace clean and tidy:** Messy workplace may result in injuries.
- 2) **Pay attention to the working conditions of the equipment:** Do not operate this equipment in humid or wet places. Do not expose the equipment to rain. The equipment shall be operated in a well-lighted place, and provide proper lighting in the workplace if necessary. Do not operate the equipment in the presence of gases of flammable fluids.
- 3) **Keep the workplace out of the reach of children.** Make sure that children cannot access the workplace. Do not let children play with the device, tools, extension cords and oil hose.
- 4) **Put unused material back, where it belongs.** Unused tools must be stored in a dry place, so as to protect them against corrosion. Always keep fluid and tools locked and away from the reach of children.
- 5) **Do not use the equipment for other purposes.** Modifying the equipment or using it for any other purposes are not allowed.
- 6) **Wear proper working clothes.** Do not wear any loose clothing, or necklaces that could become trapped in the moveable parts of the machine. It is recommended to always wear protective clothing and shoes, when working. Use protective cap to cover long hair.
- 7) **Use eye and ear protection.** When working in dusty environments and in the presence of chemical gas, always wear an ANSI certified dust-mask or a protective mask.
- 8) **Do not lean on other objects when operating the device.** Make sure your feet are well supported and there is no risk of losing balance when operating the equipment. Do not leave for a long time when the equipment is working.
- 9) **Take proper care of tools.** Carry out periodic inspections of electric cords and oil hose, so as to make sure that they are clean, dry, and not soiled with oils and lubricants.
- 10) **Attentions for maintenance:** When carrying out maintenance, please always observe the basic rules. Do not repair the equipment, if you feel too tired.
- 11) **Make sure that there is no potential damage to any parts of the equipment before using.** Prior to using the equipment, carefully check every wearing part and moveable part to make sure that it will work properly and perform all required functions. If machine fault occurs, it must be fixed by a qualified technician.
- 12) **Spare parts and accessories:** When carrying out maintenance inspections of the equipment, use only original spare parts. When the equipment is out of warranty, if need to use non-original spare parts, it's recommended to use only those accessories that of the same or similar size and specification with original spare parts. Please contact the manufacturer or agent for some advice.
- 13) **Do not operate the device, if you have drunk alcohol or taken drugs.** When taking prescribed drugs, please follow the doctor's advice; operate the equipment only when it is confirmed that there is no any potential risk of personal injury or equipment damage. Refrain from using the device, if in doubt.
- 14) **Maintenance inspections.** For safety reasons, the equipment must be regularly maintained by qualified technicians.
- 15) **Warning for people with pacemakers.** People with pacemakers must consult a doctor before operating the equipment.

SAFETY PRECAUTIONS FOR THE PRODUCT



Note: The equipment must only be operated by qualified operators, who have undergone proper training, read and understood the warning information concerning safety, as well as the operation instruction guide.

- 1) Wear ANSI certified protective goggles.
- 2) Do not smoke in the vicinity of the equipment.
- 3) Use the device in a well-ventilated place.
- 4) When a leak is found, immediately turn off the equipment, check and fix the leakage before use it again.
- 5) Do not apply any corrosive detergents on the equipment.
- 6) Set an empty container near the equipment for storage, in case of sudden leakage.
- 7) Keep a fire extinguisher near the equipment, to contain any potential fire. .
- 8) Make sure that oils and cleaning fluid have no contact with eyes and skin.
- 9) The power supply of this machine is AC220V 50/60Hz 1Ph. Please pay attention to the safety of electricity. Must use a grounding wire socket.
- 10) It is recommended to check the accuracy of sensors on a regular basis, to ensure the accuracy of the oil adding amount, and calibrate the sensor when necessary.
- 11) When the operation is completed, please check manually whether the oil adding amount is accurate. Otherwise, the company shall not be liable for the damage to the transmission caused by inaccurate oil adding amount.
- 12) Please contact the supplier or manufacturer promptly when encountering problems such as machine failure during use. Disassembling the machine without permission is strictly prohibited.



Note: The warning remarks and instructions contained in this manual do not include all possible conditions and situations that may actually occur. The operator must understand that common sense and carefulness are the two factors that make the product safer, and they are the sole responsibility of the operator.

PACKAGE

When unpacking, make sure that the package contains all the elements listed below. Should any of the parts be missing or damaged, contact a local distributor.

Package Contents:

- GD-608 ATF Exchanger * 1 unit
- Adapter kit * 1 set
- Multifunction fluid transfer hose * 1 unit
- Cleaning fluid hose * 1 unit

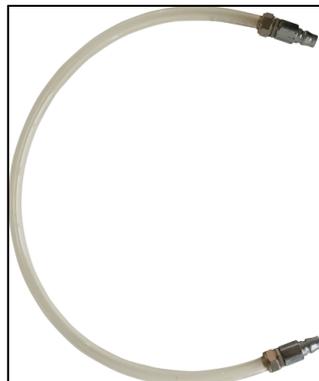


Fig. 1



Note: Unpack the equipment, prior to using the device, check whether there are any loose couplings or parts.

Before the first use of a new equipment, please check whether both the new /used oil tank sensors are accurate. If not, please refer to the new/used oil tank sensor calibration method at article11 &12 of the manual for calibration. After the calibration is correct, it can be used normally.

WORKING ENVIRONMENT AND EQUIPMENT PARAMETERS

1. Working Environment:

- 1) Environment temperature: -20°C - $+60^{\circ}\text{C}$
- 2) Relative humidity: $<85\%$

2. Equipment Parameters :

- 1) Voltage: AC220V 50/60Hz 1Ph
- 2) Motor power: 140W
- 3) Pressure gauge range: 0~16Bar
- 4) Working pressure: $\leq 6\text{Bar}$
- 5) Recharge hose length: $\approx 2.5\text{m}$
- 6) Return hose length: $\approx 2.5\text{m}$
- 7) Multifunction fluid transfer hose length: $\approx 2.0\text{m}$
- 8) Cleaning fluid hose length: $\approx 0.75\text{m}$
- 9) Precision of the filter element: $5\mu\text{m}$
- 10) New oil tank capacity: $\approx 19.5\text{L}$
- 11) Waste oil tank capacity: $\approx 15.5\text{L}$
- 12) Equal amount exchange error: $\approx \pm 0.05\text{L}$
- 13) Max. oil-exchanging speed: 3.0L /Min
- 14) Machine dimension: 510mm×485mm×1360mm
- 15) Packing dimension: 495mm×515mm×1390mm

PRODUCT APPEARANCE

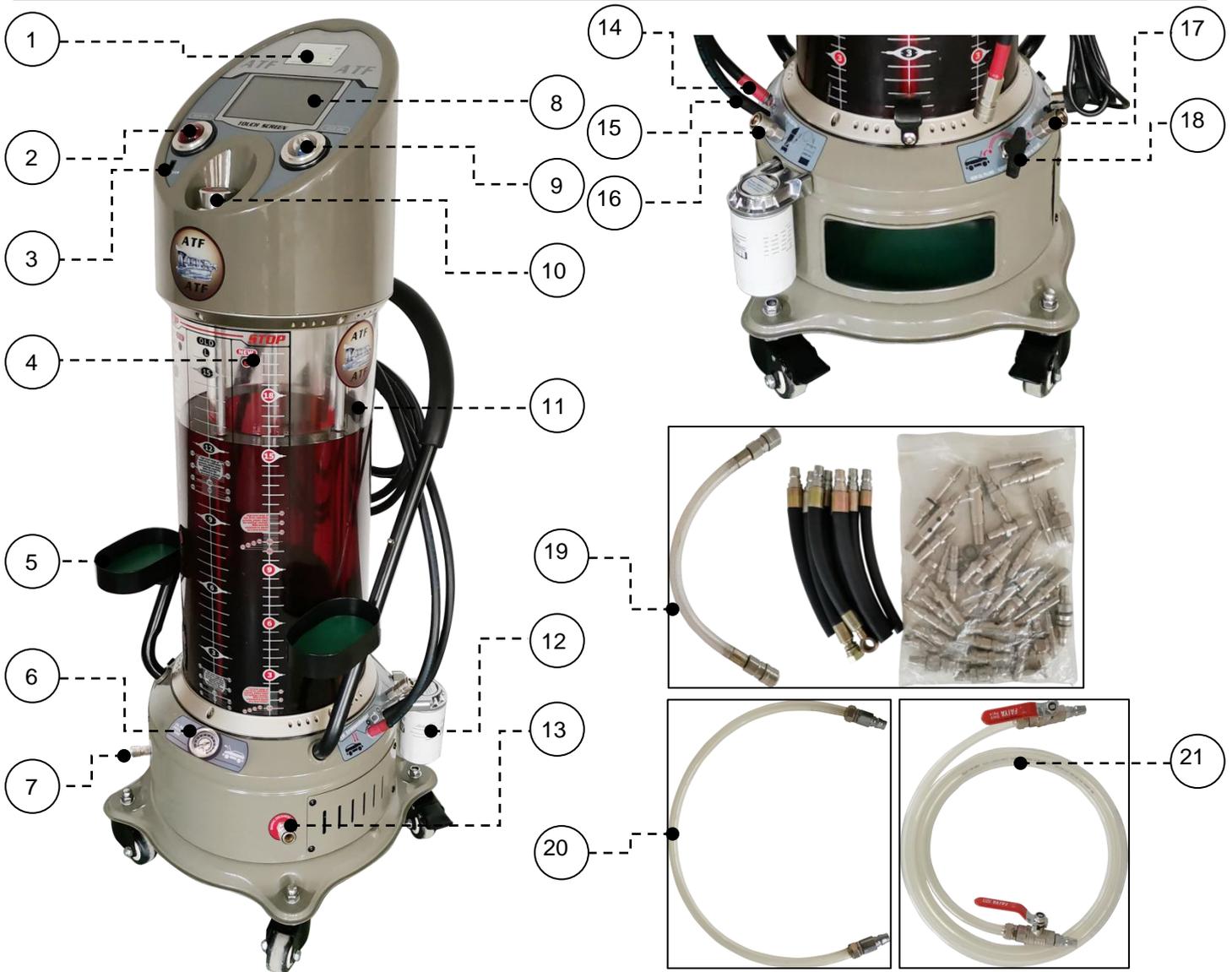


Fig. 2

1. Printer: Print relevant data of oil exchanging
2. New Oil Sight Glass: Observe new oil
3. USB Interface: Data transmission
4. Waste Oil Tank (inner): Store waste oil
5. Tool Box: Place tools & accessories
6. Pressure Gauge: Display oil return pressure
7. Manual Discharge (Used Oil): Manually discharge the oil in the waste oil tank
8. Display Screen: Display & operating
9. Waste Oil Sight Glass: Observe waste oil
10. New Oil Filling Port & Level: Add new oil to the equipment manually
11. New Oil Tank (outside): Store new oil
12. Filter: Filter the impurities in the waste oil that return from the transmission to the equipment in flushing process

Fig. 3

13. Manual Discharge (New Oil): Discharge the oil in the new oil tank manually
14. Fluid Outlet Port A: The equipment recharge new oil to the vehicle via port A
15. Fluid Return Port B: Waste oil returns from the transmission to the equipment via port B
16. Drain Used Oil: Automatically discharge waste oil
17. Oil Adding Port (Cleaning Fluid Inlet): The equipment automatically transfer new oil (or cleaning fluid) into the tank through this port
18. Switch Valve: Switch between add new oil to vehicle/add new oil to equipment
19. Adapters: Hose to transmission
20. Cleaning Fluid Hose: For cleaning fluid suction purpose
21. Multifunction Fluid Transfer Hose: For oil draining /pumping purpose

OPERATION INSTRUCTIONS

1. Main Menu Interface Introduction



Fig. 4



Fig. 5

- 1.1 **Operation:** manual operation and automatic operation modes available; manual operation includes recharge new oil, recycle waste oil, etc., while the automatic operation includes equal amount exchange, flushing, discharge the oil tank and so on (Fig. 5).

Note: manually recharge new oil and recycle waste oil function are equivalent to the 'Add New Oil' and 'Recycle Waste Oil' under automatic operation respectively.

Add New Oil: Recharge new oil to the automatic transmission.

Recycle Waste Oil: Recycle waste oil from the automatic transmission.

Equal Amount Exchange: Exchange the transmission oil according to the amount set by the user.

Flush: Flushing the transmission system according to the flushing time set by the user.

Intelligent Exchange: Automatically complete flushing transmission system and exchange the transmission oil, according to the flushing time and oil amount set by the user (equivalent to both Flush and Equal Amount Exchange functions)

Empty Oil Tank: Empty new/waste oil tank

Add New Oil to Equipment: Automatically transfer the certain amount of new oil, which has been set by the user, from the external oil container to the equipment

Print: Print operation data

- 1.2 **Setting:** Includes sensor calibration, equipment information, instructions for use and password setting, etc.(Fig. 6);

Calibration (New Oil Tank): Calibrate new oil tank sensor

Calibration (Waste Oil Tank): Calibrate waste oil tank sensor

Factory Reset: **Make sure new/waste oil tank has been emptied** and then reset the corresponding value to zero.

Password Setting: Modify the password for entering the calibration. The original password is: 654321

Calibration Instruction: Calibration procedures for new/waste oil tank sensors and detailed description of related matters needing attention.

About Equipment: Related information about the equipment.

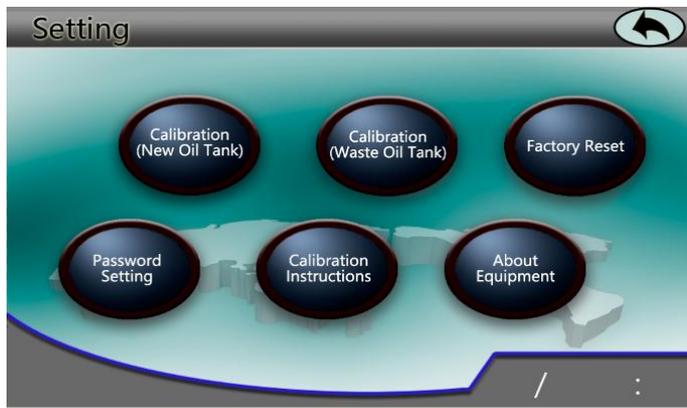


Fig.6

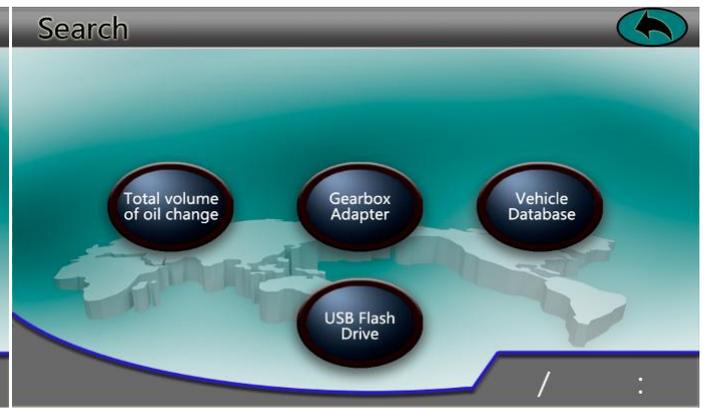


Fig.7

- 1.3 **Search:** Search for total volume of oil exchange, gearbox adapter, vehicle database and USB flash drive and so on (Fig.7);

Total Volume of Oil Change: The number and the total volume of oil changes

Gearbox Adapter: List of adapters and applicable models

Vehicle Database: Transmission oil data of different models

USB Flash Drive: The sign of USB flash drive, which only occurs after connecting the USB flash disk.

2. Preparation

Warning: Never start car engine in a garage or any other closed room without proper exhaust system. Working engine generates carbon monoxide, which is lethal in a closed room. The first symptoms of carbon monoxide intoxication are similar to flu (headache, dizziness, or nausea).

If any of these symptoms occurs, immediately leave the room and get some fresh air.

Notes:

- a) **Before changing the transmission oil, please check the relevant information to confirm the transmission oil type of the vehicle, to avoid the improper transmission oil being recharged into the transmission and causing damage.**
- b) **It is recommended to add proper volume of new oil to the equipment according to actual oil exchange demand. The volume of new oil added could also refer to the amount specified in the car maintenance manual and the recommended amount of transmission oil supplier.**
- c) **Check the oil level in waste oil tank before using the equipment. It is recommended to empty waste oil tank timely by 'Empty Oil Tank' function.**
- d) **Prior to exchanging, please make sure whether the transmission is in good working condition and whether the oil level inside is within a reasonable range.**
- e) **To avoid potential risk caused by even a very tiny error, though the oil tank sensors accurately control the exchanging amount of transmission oil, it's recommended that after each oil exchange operation, manually check the oil level in the transmission to make sure it's within reasonable range.**

2.1 Before use, please make sure that there are no fluid in neither new/waste oil tank. Connect power supply, turn on power switch and check whether the volume of the oil in the two oil tanks displayed on the screen is zero. If it is, then the equipment can be operated normally. If it doesn't, please refer to article 13 to restore factory settings.

2.2 Two methods for adding new oil to the equipment, Check if the filling amount displayed on the screen is the same as that added to the machine. If they are consistent, it shows that the machine works correctly. Otherwise, please refer to the article 11 for sensor calibration.



Fig.8



Fig.9



Fig.10

- 2.2.1 Unscrew the cap of new oil filling port, as shown in Fig.8, and pour new oil into the equipment through this port.
- 2.2.2 Connect recharge hose A in fluid outlet port A to the built-in connector inside new oil filling port (Fig.9); choose a short transparent hose and connect one end to oil adding port, the other end, to a new oil barrel, and then turn the switch valve to 'add new oil to equipment' (Fig.10).
- 2.2.3 Start the equipment. Select 'Operation' → 'Automatic Operation' → 'Add New Oil to Equipment' → set the adding amount → Start; then the equipment will automatically transfer new oil to the new oil tank inside it.



Fig.11

- 2.3 In a ventilated room, reliably lift the car through a vehicle lift or other safety support apparatus, with the driving wheel suspended at least 200mm from the ground;



Fig.12

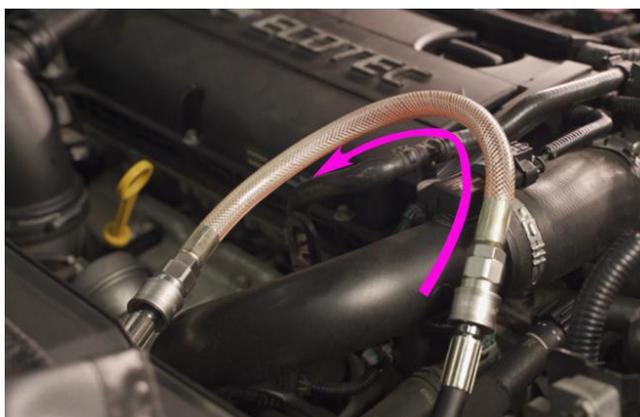


Fig.13

- 2.4 Pull up the handbrake, set the gear to the "P" position and turn off the car;
- 2.5 Find an oil hose on the car that connects the automatic transmission to the radiator which is easy to disassembly and select a suitable adapter to reliably connect it to the oil hose. How to choose the adapter please refer to article 19, which shows the adapters for corresponding vehicle models via 'Gearbox Adapter' function under 'Search' section;
- 2.6 Connect both the disconnected joints of the transmission system with a transparent short hose, start the engine and observe the flow direction of fluid in the hose. Turn off the engine and disconnect the transparent hose from the car after figuring out the fluid inlet and outlet of the transmission (Fig.13);
- 2.7 Connect two oil hoses of the equipment with the transmission; The recharge hose in fluid outlet port A is connected to the inlet of transmission, and the return hose in fluid return port B, to the outlet of transmission (Fig.14);

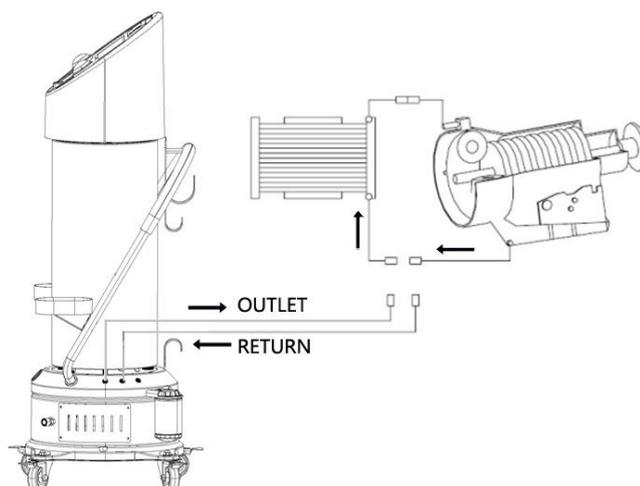


Fig.14

3. Add Cleaning Fluid

Notes:

- **The equipment flushes the transmission system through transmission oil itself, combined with filter systems of the equipment and in the transmission. So there is no independent cleaning fluid adding function. The following two methods can be used to add the cleaning fluid to the automatic transmission system if the user decides to use the cleaning fluid.**
 - **Please check the oil level in transmission before adding cleaning fluid, to avoid the oil level becoming too high for safe working. Or, discharge the same amount of new oil as the amount of cleaning fluid needed to be added in advance. Relevant details please refer to article 8.**
- 3.1 Please check the relevant information to confirm the appropriate type of automatic transmission cleaning fluid. Find new oil filling port on the transmission, and add proper amount of cleaning fluid through the filling port.
 - 3.2 If there is no new oil adding port in the transmission, connect the recharge hose in fluid outlet port A to the inlet of transmission (Fig.14); the fluid inlet port B remains unconnected. Connect one end of the cleaning fluid hose to oil adding port(cleaning fluid inlet) of the equipment, the other end, to an external cleaning fluid barrel, and then turn the switch valve to 'add new oil to equipment' (Fig.10). Start the equipment. Select 'Operation'→'Automatic Operation'→'Add New Oil to Equipment'→ set the adding amount → Start; then the equipment will automatically transfer cleaning fluid into the transmission.

4. Intelligent Exchange

- 4.1 Confirm that the recharge hose A and return hose B are connected to the car transmission correctly and reliably.
- 4.2 Turn on the power switch, select 'Operation'→'Automatic Operation'→'Intelligent Exchange' (Fig. 15&Fig.16).

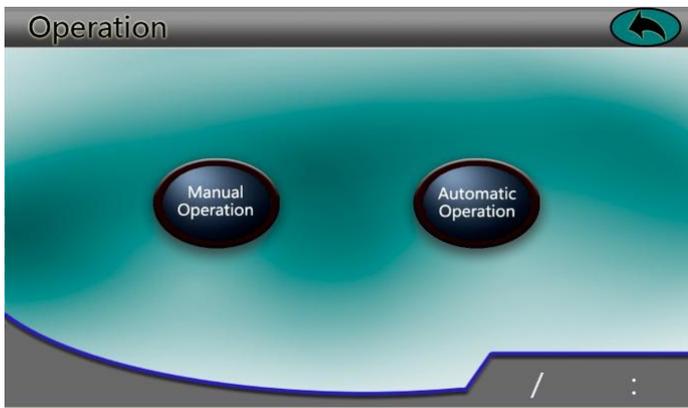


Fig.15

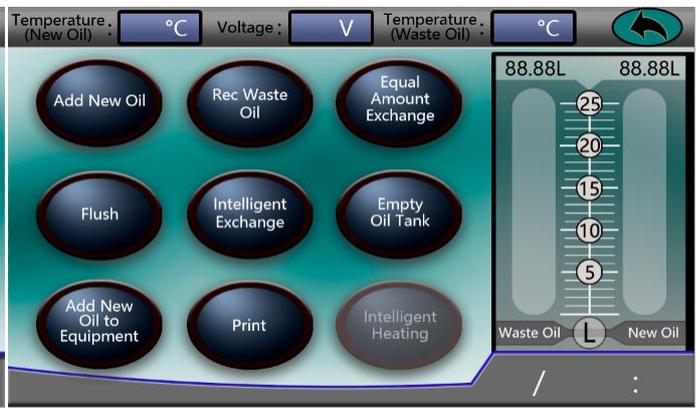


Fig.16

- 4.3 Click "+" or "-" to set flushing time and the exchange amount. Or tap the edit box to pop up the number keyboard, and enter the number (Fig.17). Then click 'Start' to run and start the engine at the same time (Fig. 18).

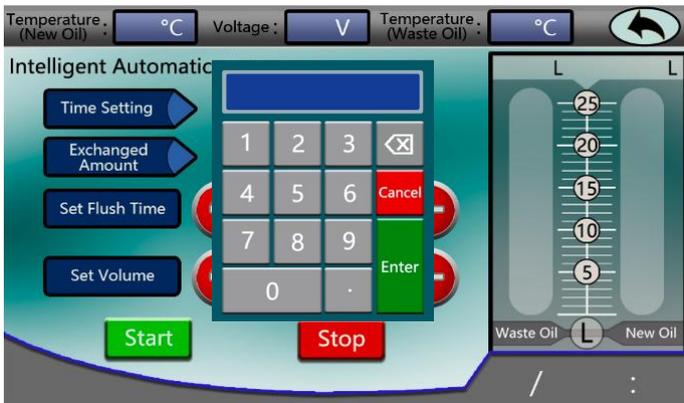


Fig.17



Fig.18

- 4.4 When the equipment starts working, please pay attention to the oil return pressure displayed in the pressure gauge at the bottom of the machine (Fig.19). It is strictly prohibited to operate under the condition of exceeding 6 BAR.



Fig.19



Fig.20

- 4.5 First it will complete flushing. In order to achieve better flushing effect, the transmission gear should be changed during the process (Fig.20), and each gear should stay for about 5~10 seconds.
- 4.6 Equal amount exchange will be executed automatically after flushing. In order to achieve more precise exchanging effect, the transmission gear should also be changed during the process (Fig.20), and each gear should stay for about 5~10 seconds.
- 4.7 Observe the oil through new/waste oil sight glass on the operation panel during working.
- 4.8 The equipment will automatically stop when finish the flushing and intelligent exchange process according to the time and the exchanged amount set in advance.

- 4.9 Turn off the car. Please check the oil level in the transmission via the oil level observation window. If the oil level is not within the standard range, please adjust the oil level through 'Add New Oil'/'Recycle Waste Oil' function, to make sure the oil level inside the transmission is within standard range.
- 4.10 Disconnect the equipment hose and adapter from the vehicle, restore the car transmission hose and complete the oil exchange operation.

Note: To avoid potential risk caused by even a very tiny error, though the oil tank sensors accurately control the exchanging amount of transmission oil, it's recommended that after each oil exchange operation, manually check the oil level in the transmission to make sure it's within reasonable range!

5. Flush

- 5.1 Confirm that the recharge hose A and return hose B are connected to the car transmission correctly and reliably.
- 5.2 Turn on the power switch of the equipment and select 'Operation'→'Automatic Operation'→'Flush'.
- 5.3 Click "+" or "-" to set flushing time. Or tap the edit box to pop up the number keyboard, and enter the number (Fig.21). Then click 'Start' to run and start the engine at the same time.

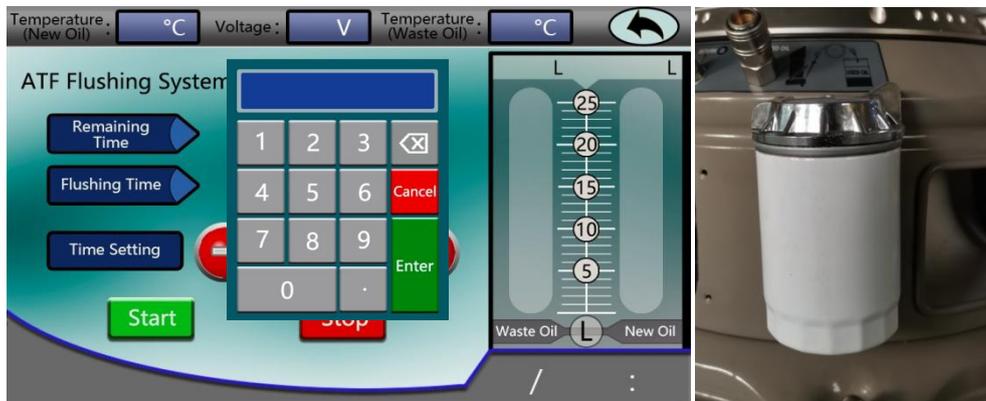


Fig.21



Fig.22

- 5.4 The equipment starts to work. In order to achieve better flushing effect, the transmission gear should be changed during the process (Fig.20), and each gear should stay for about 5~10 seconds.
- 5.5 The equipment stops when it reach the time that has been set in advance. Flush process completes.

Note: It's recommended to change the filter of the equipment after flushing 3-5 vehicles (Fig.22).

6. Equal Amount Exchange

- 6.1 Confirm that the recharge hose A and return hose B are connected to the car transmission correctly and reliably.
- 6.2 Turn on the power switch of the equipment and select 'Operation'→'Automatic Operation'→'Equal Amount Exchange'.
- 6.3 Click "+" or "-" to set the exchange amount. Or tap the edit box to pop up the number keyboard, and enter the number (Fig.23). Then click 'Start' to run and start the engine at the same time.

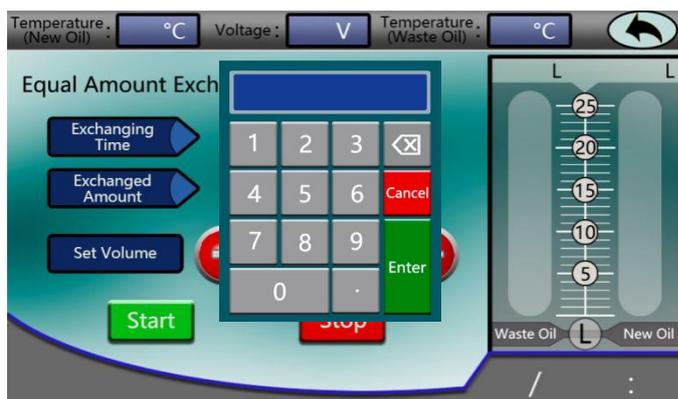


Fig.23

- 6.4 The equipment starts to work. In order to achieve more precise exchange effect, the transmission gear should be changed during the process (Fig.20), and each gear should stay for about 5~10 seconds.
- 6.5 The equipment stops when it reach the exchanged amount set before. Turn off the engine and finish equal amount exchange process.

Note: To avoid potential risk caused by even a very tiny error, though the oil tank sensors accurately control the exchanging amount of transmission oil, it's recommended that after each oil exchange operation, manually check the oil level in the transmission to make sure it's within reasonable range!

7. Add New Oil

Note: The equipment will add new oil to the transmission by this function when the oil level in the transmission is lower than the standard value.

- 7.1 Please make sure that the recharge hose A is correctly and reliably connected to the transmission. The new oil in the equipment is of the same type as that of the transmission.
- 7.2 Turn on the power switch of the equipment and select 'Operation'→'Automatic Operation'→'Add New Oil'.
- 7.3 Click "+" or "-" to set the exchange amount. Or tap edit box to pop up the number keyboard, and enter the number (Fig.24). Then click 'Start' to run.

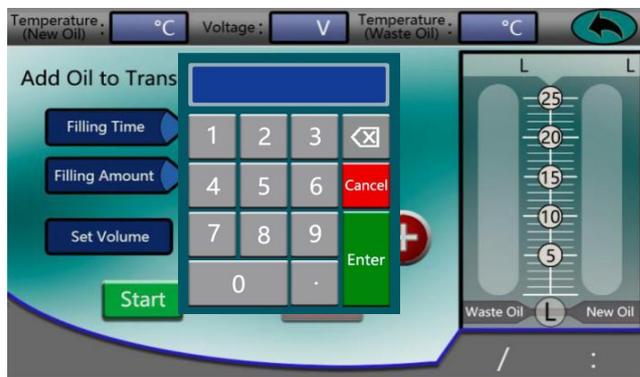


Fig.24

- 7.4 The equipment stops when it reach the added amount set before and the refill process ends.

Note: It's recommended that after each oil level adjustment operation, manually check the oil level in the transmission to make sure it's within reasonable range!

8. Recycle Waste Oil

Note: The equipment will extract oil from the transmission by this function when the oil level in the transmission is higher than the standard value.

- 8.1 Please make sure that the return hose B is correctly and reliably connected to the transmission. .
- 8.2 Turn on the power switch of the equipment and select 'Operation'→'Automatic Operation'→'Recycle Waste Oil'.
- 8.3 Click "+" or "-" to set the recycle amount. Or tap the edit box to pop up the number keyboard, and enter the number (Fig.25). Then click 'Start' to run and start the engine at the same time.

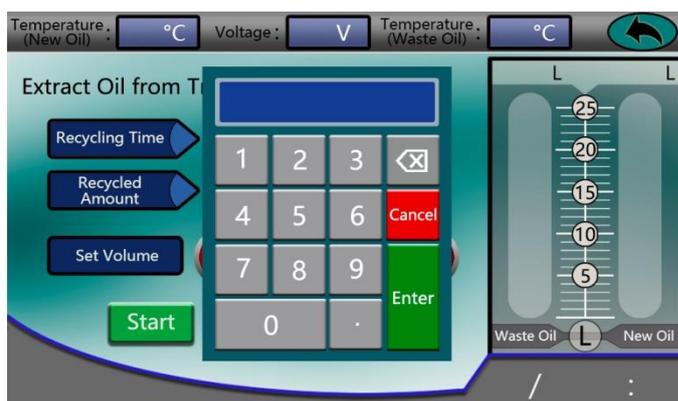


Fig.25

8.4 The equipment stops when it reach the recycled amount set before and the recycle process ends.

Note: It's recommended that after each oil level adjustment operation, manually check the oil level in the transmission to make sure it's within reasonable range!

9. Empty Oil Tank

Note: The sensitivity of the sensor may be reduced under long-term pressure. It is recommended to empty the new/waste oil tanks after daily work.

9.1 Empty Waste Oil Tank

9.1.1 Make sure the recharge/return hose is disconnected from vehicle.

9.1.2 Pick the multifunction fluid transfer hose and connect it to the 'Drain used oil' port. Secure the other end of the hose to the external waste oil tank (Fig. 26).



Fig. 26

9.1.3 Press the ON/OFF button to start the machine, select 'Operation', tap 'Automatic Operation', and press 'Empty Oil Tank'.

9.1.4 Press , select 'Waste Oil Tank', press 'Start' to empty the oil tank (Fig. 27).

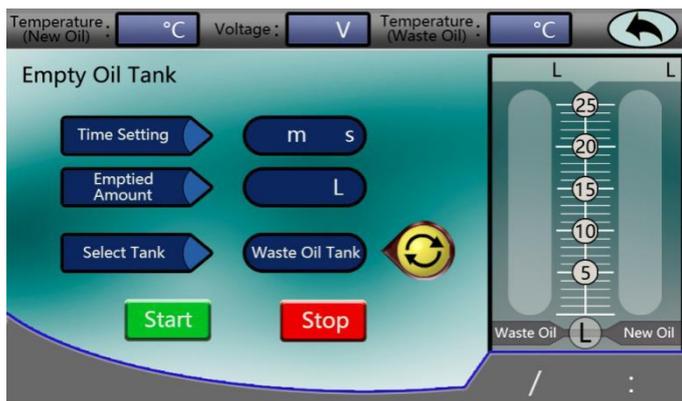


Fig. 27



Fig. 28

9.1.5 The machine will automatically stop when the tank is emptied.

9.1.6 It is also possible to empty oil through the 'Manual discharge (used oil)' port (Fig. 28).

9.2 Empty New Oil Tank

9.2.1 Make sure the recharge/return hose is disconnected from vehicle.

9.2.2 Pick the multifunction fluid transfer hose and connect it to the Recharge hose firmly. Secure the other end of the multifunction fluid transfer hose to the external new oil tank (Fig. 29).



Fig. 29

9.2.3 Press the ON/OFF button to start the machine, select 'Operation', tap 'Automatic Operation', and press 'Empty Oil Tank'.

9.2.4 Press , select 'New Oil Tank', press 'Start' to empty the oil tank (Fig. 30).

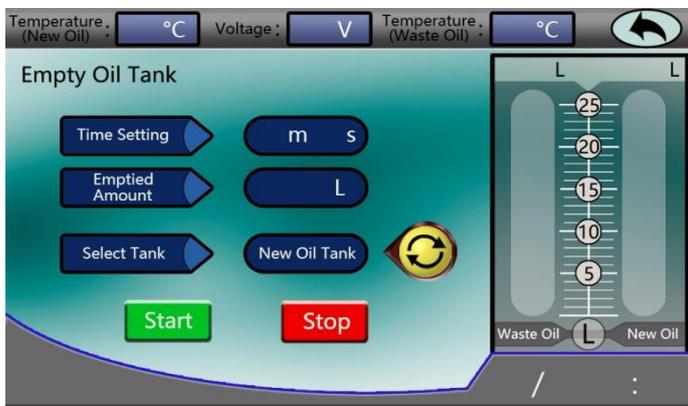


Fig. 30



Fig. 31

9.2.5 The machine will automatically stop when the tank is emptied.

9.2.6 It is also possible to empty oil through the 'Manual discharge (new oil)' port (Fig. 31).

10. Print

10.1. When it requires to print the operation data after service is done, select 'Operation', tap 'Automatic operation' and press 'Print'.

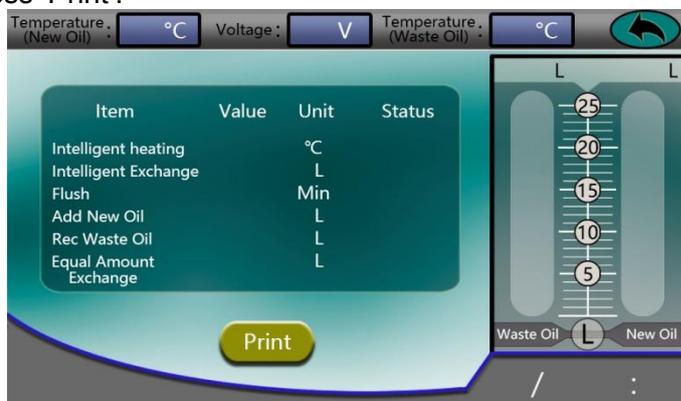


Fig. 32

10.2. Tap 'Print' (Fig. 32) for the result.

SETTING

11. New Oil Sensor Calibration

Note:

- The equipment adopts high sensitive sensors. The calibration has been done before the equipment leave the factory. The accuracy is guaranteed through normal operation. In case of calibration is required, please strictly follow below steps for sensor calibration.
- Place the machine in a horizontal position. Observe the spirit level at manual refill port to have a check if necessary. (Fig. 33).
- To ensure the accuracy of calibration, both new and waste oil must kept in ambient temperature, and the liquid level difference between high liquid level and low liquid level should be equal to or greater than 5L.
- Prepare more than 10L new oil in advance.
- The values of high liquid level or low liquid level are confirmed in any order. It is recommended to take value of low liquid level range among 0.6~2.0L, while high liquid level, from 7.0~15.0L.
- Please refers the detailed instruction label of calibration through article No.15 of this manual.
- Scales on the tank: marks on the left and right stands for new oil level scales, while the mark in the middle stands for waste oil level (Fig. 36).



Fig. 33

11.1 Before calibration, please make sure the liquid level of the new oil tank at low liquid level (0.6~2.0L) or high liquid level (7.0~15.0L), if not, it is recommended to refer article 9.2 of this manual and adjust the liquid level as required.

11.2 Press the ON/OFF button to start the machine, select 'Setting' and tap 'New Oil Sensor Calibration'.

11.3 Tap the edit box and enter '654321', press 'Enter' as confirm (Fig. 34&Fig. 35).

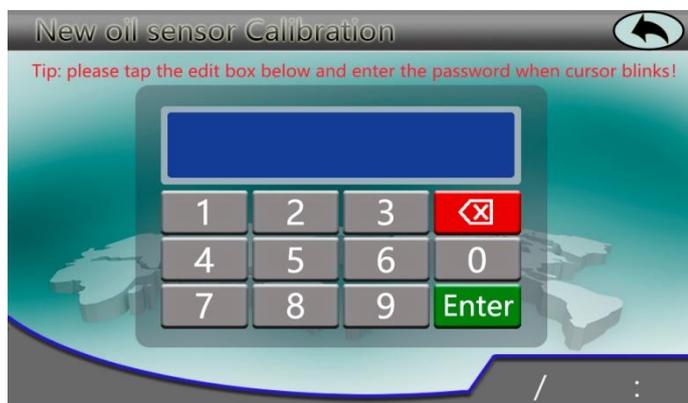


Fig. 34

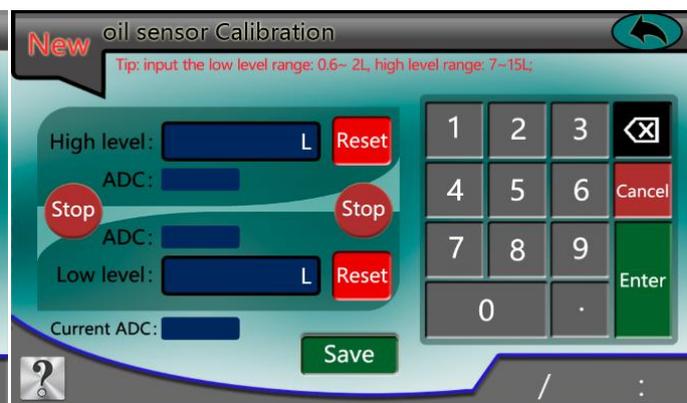


Fig. 35

11.4 Read the new oil tank gauge against the scale (read scales on the left or right), for example, it shows 1.7L as low liquid level in Fig. 36.



Fig. 36

11.5 Enter the oil volume 1.7L into the edit box of 'Low level'. Wait until the final ADC (ANALOG TO DIGITAL CONVERTER) number shows and press 'Enter'. If a mistake is made, tap 'Reset' and enter the correct number (Fig. 37).

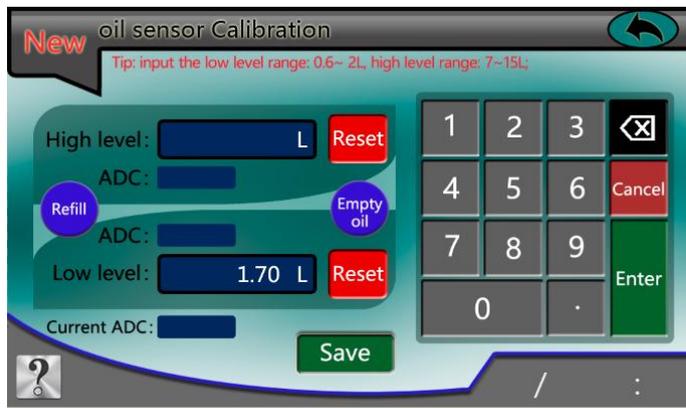


Fig. 37

11.6 Now add new oil to the oil tank to high liquid level range (7.0~15.0L). There are two options for oil refilling: one is pour new oil through the manual refill port (Fig. 8), or follow the article 2.2.2 to make the connection, tap 'Refill' in Fig. 37 to pump new oil into the oil tank, take 10.25L as example (Fig. 38).



Fig. 38

11.7 Enter the oil volume 10.25L into the edit box of 'High level'. Wait until the final ADC number shows and press 'Enter'. If a mistake is made, tap 'Reset' and enter the correct number (Fig. 39).

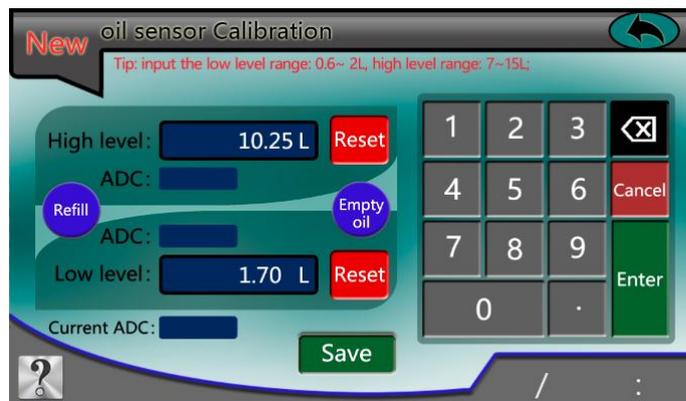


Fig. 39

11.8 Now we confirmed the value of high liquid level and low liquid level, press 'Save' and finish calibration (Fig. 39).

11.9 Verify if the liquid level of the new oil tank is the same as the value on the display shows.

12. Waste Oil Sensor Calibration

12.2 Press the ON/OFF button to start the machine, select 'Setting' and tap 'Waste Oil Sensor Calibration'.

12.3 Tap the edit box and enter '654321', press 'Enter' as confirm.

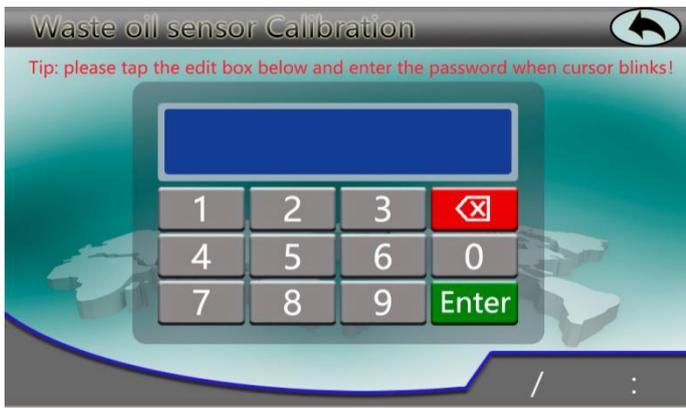


Fig. 40

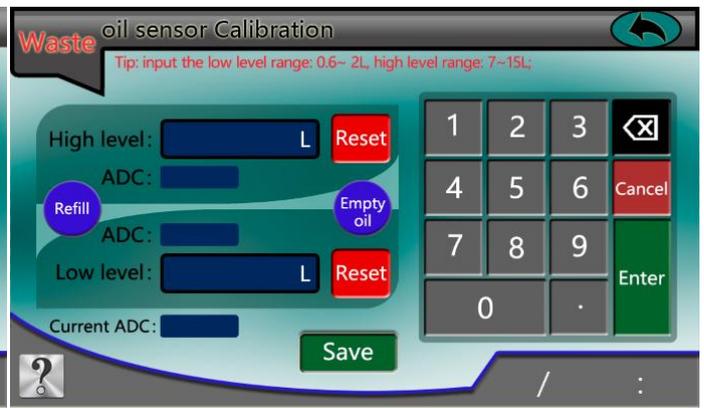


Fig. 41

12.4 Read the waste oil tank gauge against the scale (read middle scales), for example, it shows 10.5L as high liquid level in Fig.42.

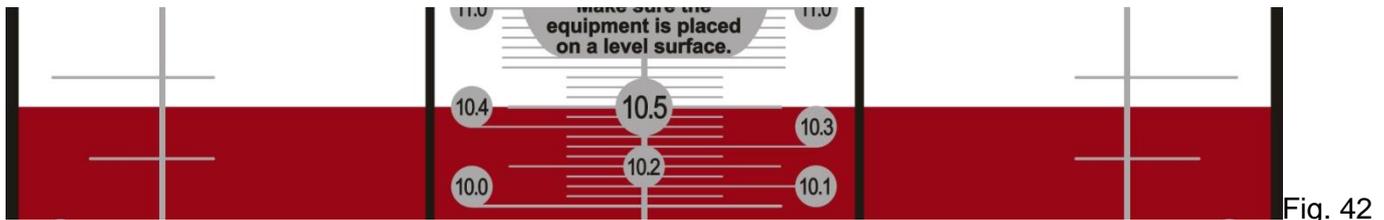


Fig. 42

12.5 Enter the oil volume 10.5L into the edit box of 'High level'. Wait until the final ADC number shows and press 'Enter'. If a mistake is made, tap 'Reset' and enter the correct number (Fig. 43).

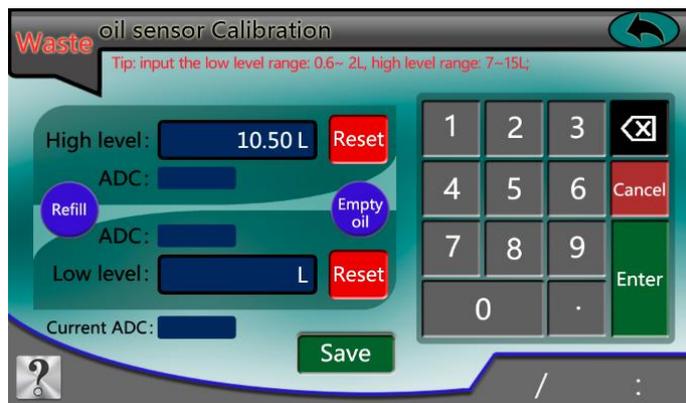


Fig. 43

12.6 Now follow the article 9.1 to empty the waste oil tank and tap 'Empty oil' in Fig.43. When the oil is emptying and the oil level lowered to the range of 0.6~2.0L, Press 'Stop'. Here it shows 1.35L for example (Fig. 44).

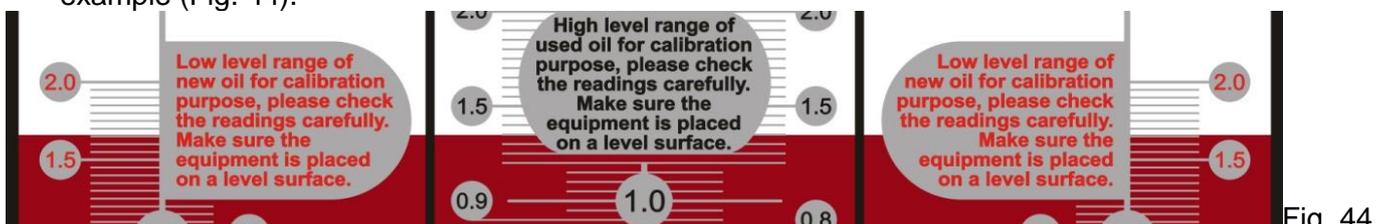


Fig. 44

12.7 Enter the oil volume 1.35L into the edit box of 'Low level'. Wait until the final ADC number shows and press 'Enter'. If a mistake is made, tap 'Reset' and enter the correct number (Fig. 45).

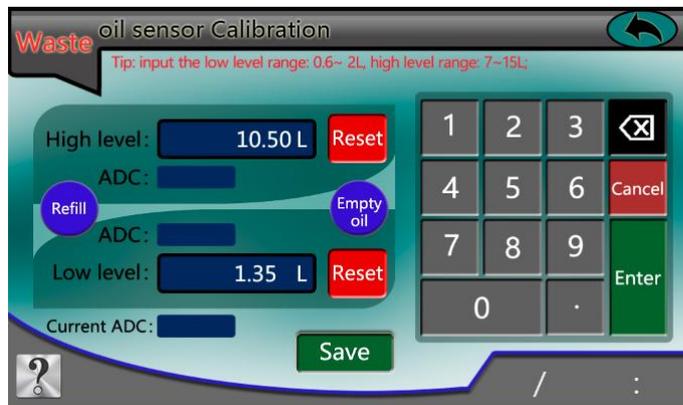


Fig. 45

12.8 Now we confirmed the value of high liquid level and low liquid level, press 'Save' and finish calibration (Fig. 45).

12.9 Verify if the liquid level of the waste oil tank is the same as the value on the display shows.

13. Factory Reset

Note: Ensure the oil tank is completely empty before resetting.

13.1 If the oil tank is empty, while the display shows it is not, then execute 'Factory Reset' to clear the oil volume data.

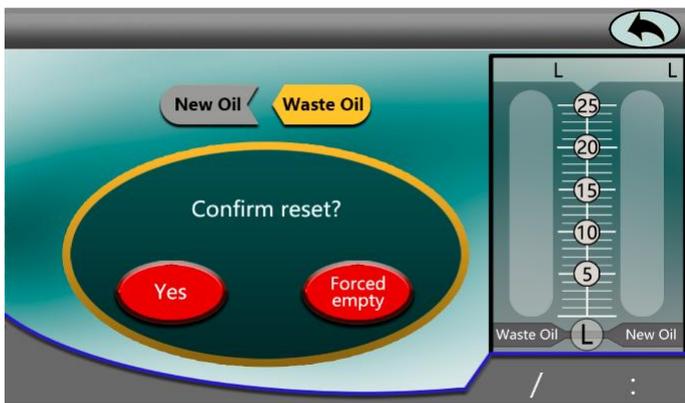


Fig. 46

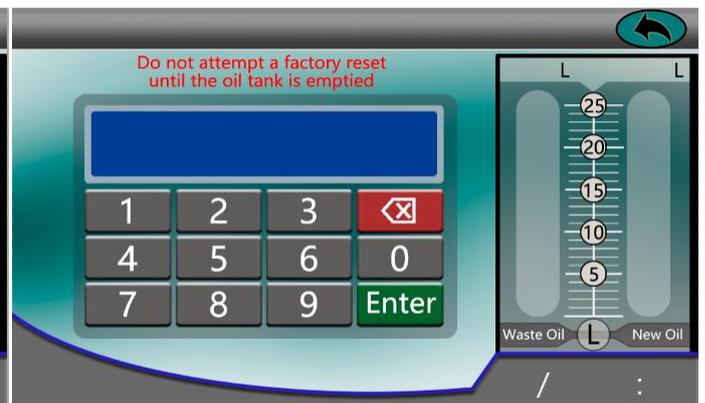


Fig. 47

13.2 Tap 'Forced empty' to empty the remaining oil in the oil tank if any.

13.3 In order to protect this machine against unauthorized access, a password has been set as '2580'.

14. Password Setup

This setting is for password change which is used to access the calibration of new/waste oil level sensor. Original password is 654321. Please follow the screen prompts to operate. It is recommended to keep the password properly after initialization and change, so as to avoid failure to access the calibration screen. Fig.48



Fig. 48

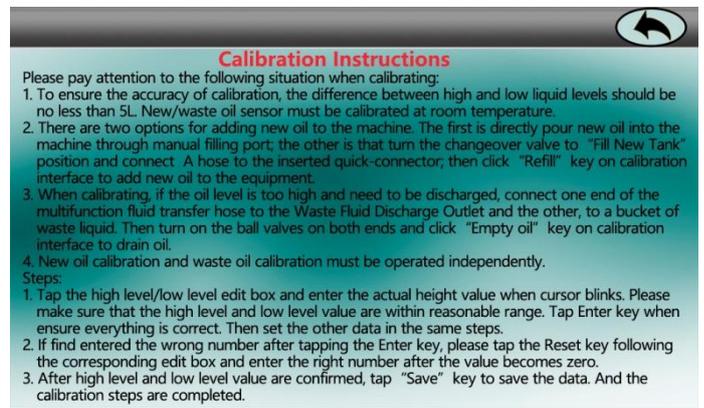


Fig. 49

15. Calibration Instructions

Instruction of new oil/ waste oil level sensor calibration. For reference only. Fig.49

16. About Equipment

Select 'Setting', tap 'About Equipment' to check hardware/software version of this equipment, and total working time / total standby time. Fig.50



Fig. 50



Fig. 51

17. Changing the System Date and Time

Tap the time on the right top of the main interface to change the time and date. Refers to Fig.51

SEARCH

18. Total Volume of Oil Change

Select 'Search', tap 'Total Volume of Oil Change' to check the numbers of oil change and total volume of oil change. For reference only.

19. Gearbox Adapter

Select 'Search', tap 'Gearbox Adapter' to check the list of adapters. For reference only.

20. Vehicle Database

Select 'Search', tap 'Vehicle Database' to check oil change data per different types of vehicle. For reference only.

21. USB Flash Drive

Note:

- It is recommended to prepare a dedicated empty USB stick, connect it to the USB port before using this function.
- Please contact the seller or manufacturer for an update of new vehicle data. Private operation is prohibited and it may result in data loss or failure.

21.1. Connect the USB key to the USB port, select 'Search', then tap 'USB Flash Drive'.

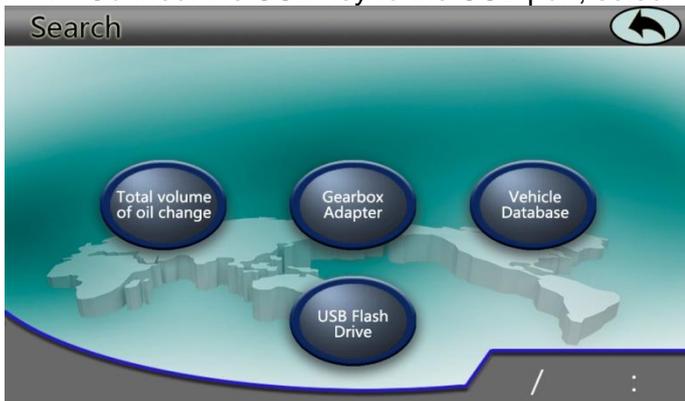


Fig. 52



Fig. 53

21.2. Enter the password 654321 and tap 'Enter'.



Fig. 54

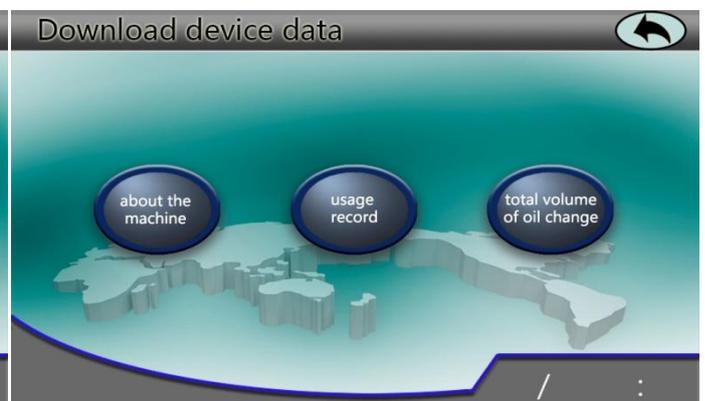


Fig. 55

21.3. Update data of new vehicle: Please contact the seller or manufacturer for an update of new vehicle data. Private operation is prohibited and it may result in data loss or failure.

21.4. Download data from the machine: Tap 'Download Device Data' to download machine information / usage record / total volume of oil change.

PRINCIPLE OF PIPING

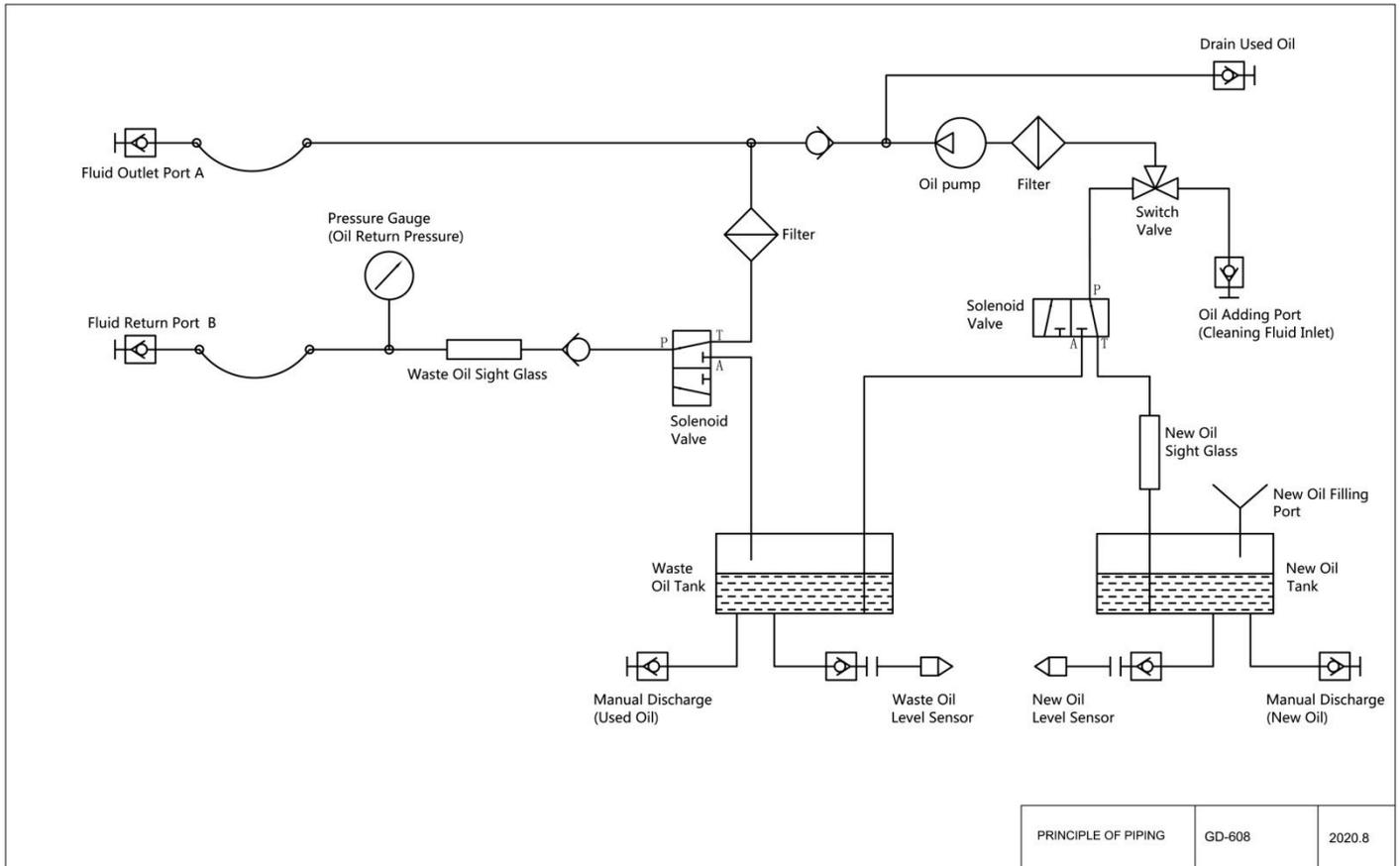


FIG. 56

TROUBLESHOOTING

1. Starting up without display
 - 1.1 Cause: Fuse burn-out
Solution: Replace the fuse
 - 1.2 Cause: Failure of power switch
Solution: Repair or replace the switch
 - 1.3 Cause: Circuit damage
Solution: Repair or replace the circuit
 - 1.4 Cause: Computer board damage
Solution: Replace the computer board
2. Failure of equivalent exchange
 - 2.1 Cause: The level of transmission fluid is lower than minimum or higher than maximum mark
Solution: Recycle extra oil or add new oil through 'Recycle waste oil' and 'Add new oil' functions
 - 2.2 Cause: The accuracy of the sensor is not high enough
Solution: Re-calibrate the sensor refers to 'New Oil Sensor Calibration' and 'Waste Oil Sensor Calibration' in this manual
 - 2.3 Cause: Irregular operation
Solution: Follow the instruction to operate the machine



Warm Prompt:

- **The power supply of this machine is: AC220V 50/60Hz 1Ph, please pay attention to the safety of the electricity, the device must be plugged into a power socket with a connected earth wire.**
- **It is recommended to calibrate the accuracy of this electronic scale on a regular basis to ensure the accuracy of the oilfilling.**
- **When the operation is completed, please manually check the accuracy of the oil amount. Otherwise, the company will not be responsible for the damage due to inaccurate oil filling.**
- **Please contact the supplier or manufacturer promptly when encountering problems such as machine failure during use. It is prohibited to disassemble the machine without permission.**