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To avoid personal injury, property damage, or accidental damage to the product, please read all the information in this chapter before using the product. This device is for professional technicians or maintenance personnel to use.

The equipment is for specialist or qualified technician use only.

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Safety Precautions

Read all service procedures and precautions, installation instructions and equipment operating manuals thoroughly. Failure to observe these precautions, or the improper use of equipment, could result in property damage, serious injury or death. Never allow improperly trained personnel to perform these procedures or operate equipment.

- Read and understand the User's Manual before attempting to operate the device.
- Do not smoke in proximity to the machine while it is in operation.
- Do not use the machine in proximity to sources of heat and fire.
- Do not expose to direct sunlight or rain, use in well-ventilated work area only.
- Turn off the power after the operation is completed.
- When it is in operation, keep the hoses away from rotating elements and hot parts such as cooling fans, radiators, etc.
- Vehicle exhaust includes various poisonous and harmful gases (such as carbon monoxide, hydrocarbon, nitrogen oxygen complex, etc.). Keep the unit in a well ventilated work area when performing operation and wear safety goggles, respirator and clothes.
- The operator should keep away from the heat parts such as exhaust hoses and radiator to avoid the personal injury.
- When disconnecting any connector of the pressurized fluid pipe, wrap the connector with towel to prevent the fluid from spurting out.
- The children and mental retardation personnel should keep away from the unit during operation.
- The operator should be quite familiar with the shift of automatic transmission to avoid transmission damage caused by improper operation.
- Always make the drive wheels hanging when cleaning the transmission or exchanging fluid.
- The unit should be placed vertically and should not be placed upside down.
- When changing fluid, the operation should be performed by properly trained personnel. The quality of the selected ATF must conform to the direction as specified in the manual of the auto to be operated. Otherwise, SMARTSAFE shall not be liable for any direct or consequential damages.



Note: Specifying operations that require attention when operating the equipment.



Warning: Specifying a possible hazard that could result in damage to the machine or personal injury.

Table of Contents

1. Introduction	1
2. Features	1
3. Working Conditions and Specifications	2
4. Structure	3
4.1 Outline	3
4.2 Circuit connection diagram	4
4.3 Control panel	5
5. Operations	5
5.1 Preparation	6
5.1.1 Jack vehicle	6
5.1.2 Connecting hose	6
5.1.3 Power cables connection	6
5.1.4 Check-up	6
5.1.5 Understanding the main menu	7
5.2 Old oil sampling	7
5.3 Filling liquid	8
5.3.1 Filling detergent	8
5.3.2 Adding new oil	8
5.4 Circulating cleaning	8
5.4.1 Fill detergent to auto transmission	8
5.4.2 Circulating cleaning	9
5.4.3 Finish circulating cleaning	9
5.5 New oil preheating	9
5.6 Transmission Oil Replacement	11
5.6.1 Direct Input	12
5.6.2 Vehicle Selection	13
5.7 Adjusting fluid level	15

5.7.1 Increase fluid amount	15
5.7.2 Decrease fluid amount	16
5.8 Equipment Emptying	17
5.8.1 Empty new fluid tank	17
5.8.2 Empty used fluid tank	17
5.9 Oil absorption adjustment	17
5.10 Settings	20
5.10.1 System setting	20
5.10.2 Sensor calibration	22
5.10.3 Language setting	26
5.10.4 Select transmission fluid	27
5.10.5 Database	27
5.10.6 Filter replacement	28
5.10.7 Print Setting	28
5.10.8 Device information	29
6. Tablet Connection (optional)	29
7. Warning	31
8. Maintenance	31
9. Common Problems and Solutions	31
9.1 The device LCD has no display and the device cannot be turned on	31
9.2 Abnormal display of new oil volume	31
9.3 Uneven volume of transmission oil replacement	32
9.4 Some function keys cannot be switched	32
9.5 Blue screen at startup	32
9.6 Vibration and noise increase significantly	32
Standard Connectors	33
Warranty	36

1. Introduction

The transmission fluid inside transmission will go bad after a period of usage of automatic transmission. If the transmission fluid cannot be changed completely in time, it may cause the abnormality to the transmission. Generally speaking, Auto Transmission Cleaner and Fluid Exchanger cannot control the filling quantity of the ATF as required, the excessive or shortage filling will cause the damage to auto transmission. ATF601+ auto transmission cleaner and fluid exchanger can complete the flush and fluid exchange for transmission, torque converter and radiator. The fluid exchange rate can reach over 90%.

2. Features

- LCD display and personalized design making easy operation.
- Multi-language print.
- Old oil sampling.
- Filling and recycling of automatic transmission fluid.
- Automatic identification for the fluid flow inlet/outlet direction.
- Circulating cleaning for automatic transmission.
- Easy for detergent filling.
- New oil preheating.
- Automatic exchange of new/used fluid.
- Visual display of the fluid pressures.
- Accurate display of the automatic transmission fluid temperature.
- Intelligent electronic control for the full automatic equivalent exchange of new and used fluid.
- Oil absorption adjustment.
- Manually adding and upgrading database function.
- Various special adapters are applicable to vehicle types made in Europe, America and Asia (optional).
- Effectively resolve the incomplete fluid exchange of manual operation.
- It improves the working performance of auto transmission.
- It prolongs the work life of transmission.

3. Working Conditions and Specifications

- Working Conditions

Item	Value
Ambient temperature	-10~+50℃
Relative humidity	<90%RH

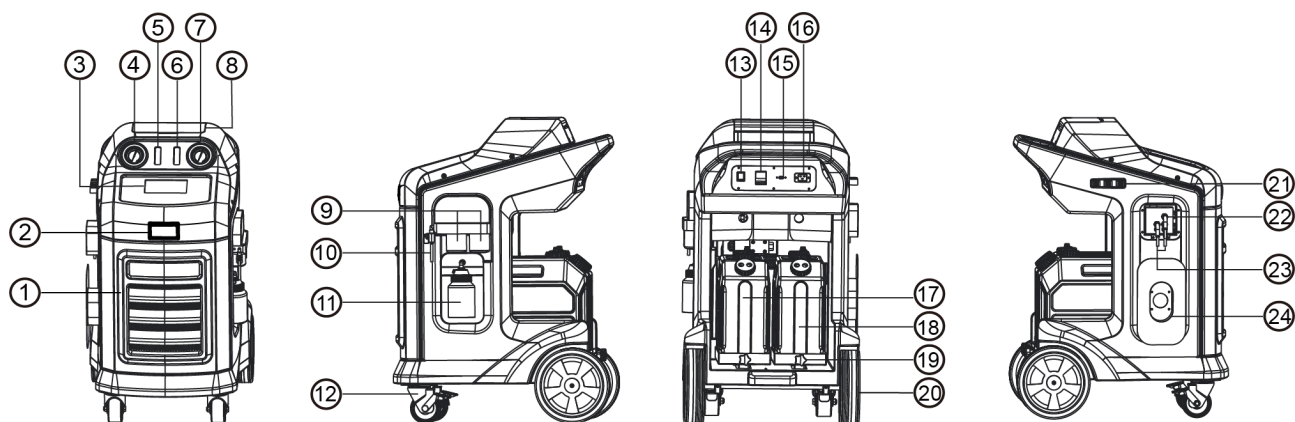
- Specifications

Item	Value
Power supply	AC 200-240 V, 50/60 Hz or AC 100-120 V, 50/60 Hz
Maximum power	3500W (220V)
Pressure gauge	0~200psi
Fluid outlet hose	2.5 m
Fluid inlet hose	2.5 m
Fluid draining hose	1.2 m
Filter precision	5μm
Filter life span	about one year if using one time a day
Fluid tank	18L×2
Equivalent exchange error	±100ml
Mean exchange speed	2L/MIN
Noise	<70db
Size	595.5mm x 747mm x 1024mm

4. Structure

4.1 Outline

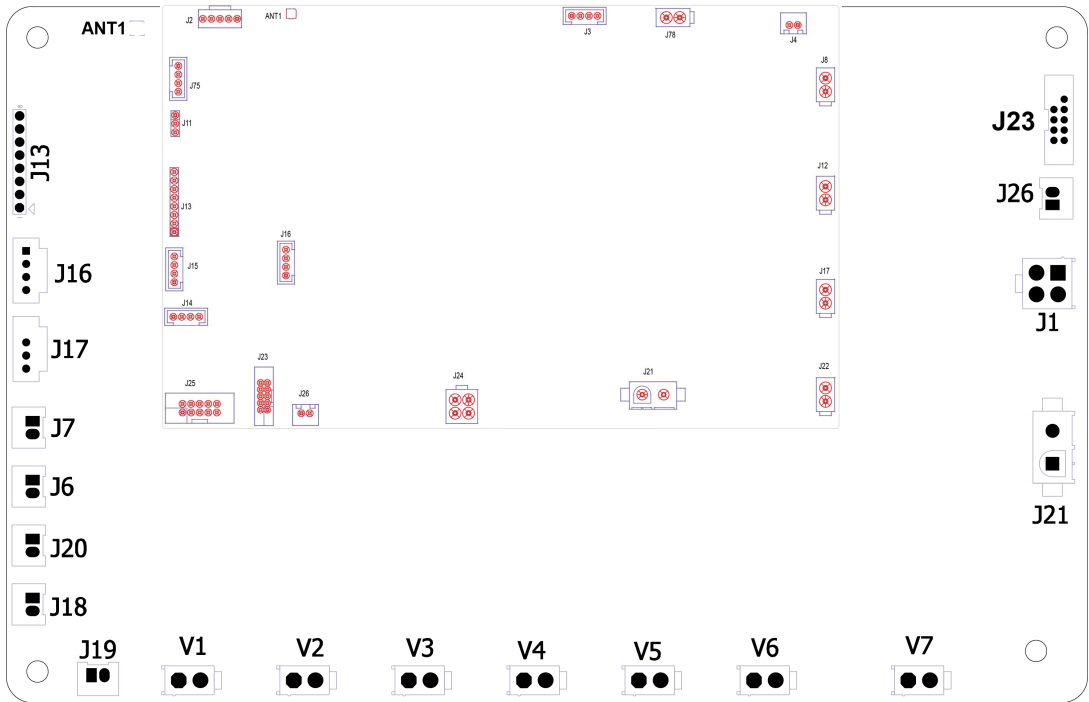
As shown in the figure below, ATF601+ is designed with a fine cabinet. There is a handle at the top of cabinet and two pairs of casters at the bottom of the cabinet, which makes it easy to move the unit. Fluid hoses are equipped with proper connectors for fast connection. The intelligible control panel helps you operate the machine easily.



Serial No.	Name	Serial No.	Name
1	Front casing	13	Power switch
2	Printer	14	Air switch
3	Operation panel	15	Update interface
4	New oil gauge	16	Power plug hole
5	New oil window	17	New oil tank
6	Old oil window	18	New oil tank
7	Old oil gauge	19	Oil tank fixed handle
8	Connector groove	20	rubber wheel
9	Filter	21	Oil tube clamp
10	Old oil sampling interface	22	Fluid draining hose
11	Detergent container	23	Inlet/outlet hose
12	universal wheel	24	Around the tube rack

4.2 Circuit connection diagram

The circuit connection diagram is as shown below.



4.3 Control panel

The control panel is as shown below.



Operation panel function list

Element	Description
0 (A, B, C)	In the database, both letters and numbers can be entered, while in other input windows, only numbers can be entered. Remarks: Press the same number key continuously to switch the numbers, letters or symbols in the same key.
1 (D, E, F)	
2 (G, H, I)	
3 (J, K, L)	
4 (*)	
5 (M, N, O, P)	
6 (Q, R, S)	
7 (T, U, V)	
8 (W, X, Y, Z)	
9 (#)	
DEL	Delete characters or delete items in the database.
	- Window light switch: In the non-text input interface, press this key to turn on or off the oil tube light. - Enter the character “.”: In the text input interface, press once to enter the character “.”. - Uppercase and lowercase switching: Press twice in a row to switch between the uppercase and lowercase modes of English letters.
	Press it to select function option in main menu.
	- Menu to return. - Press one time to stop current operation, and press once more to return to previous interface.
OK	Confirmation.

5. Operations

Note:

During the unit is in operation, it will produce the vibration with a certain frequency and noise.

This is the normal performance. Do not take it as the malfunction.

5.1 Preparation

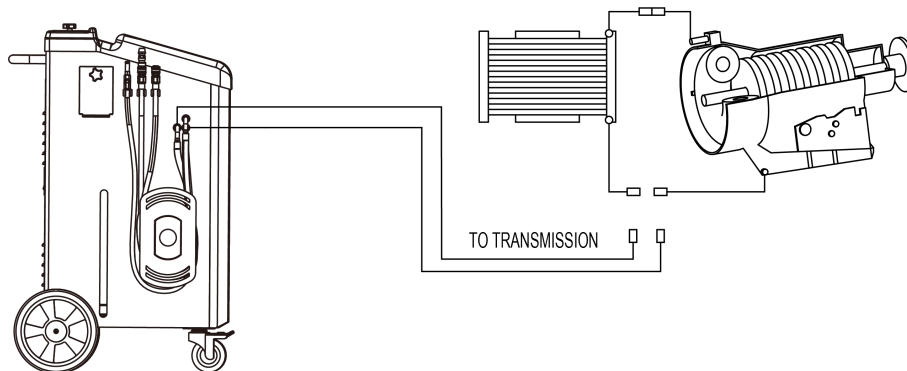
5.1.1 Jack vehicle

Jack the vehicle to keep the drive wheel off the ground at least 200mm, apply the parking brake and block the driven wheels in front and behind.

Note: The main purpose of lifting the vehicle is to facilitate the connection of the transmission oil lines. If the actual vehicle allows the oil line connection to be made at the hood, then lifting the vehicle is not necessary.

5.1.2 Connecting hose

- 1) Please refer to the vehicle repair manual to determine the location of the interface on the vehicle that can be used for oil change machine, and then select the matching connector from the connector box for connection.
- 2) Connect the two hoses marked "TO TRANSMISSION" of ATF601+ to the disconnected two ends of the hoses of automatic transmission (no necessary to consider the direction of the fluid flow), as the figure below.



5.1.3 Power cables connection

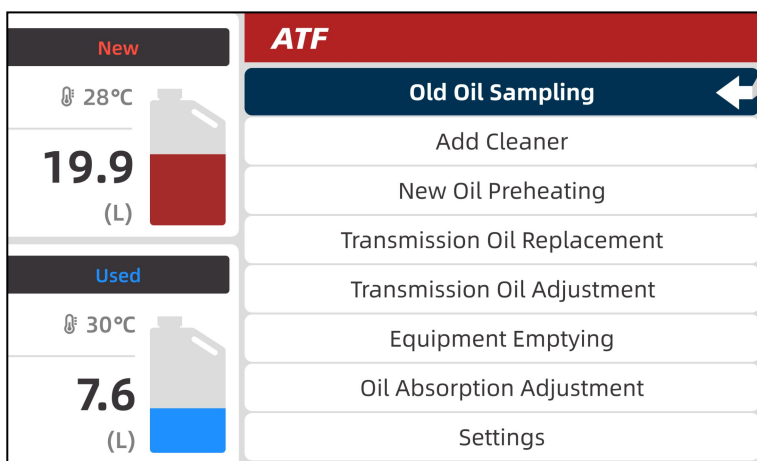
Connect the power cables of the main unit to the designed power supply.

5.1.4 Check-up

- 1) Start the engine, and ensure that there is no leakage in pipeline.
- 2) Confirm that the power supply of the ATF601+ is normal, and then switch on the unit.

5.1.5 Understanding the main menu

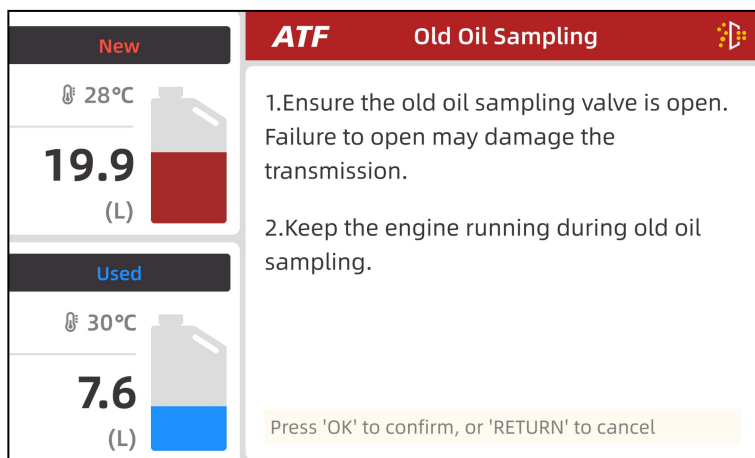
The main menu is shown in the figure below.



Item	Description
Old oil sampling	Sampling the oil from AT
Add cleaner	Add ATF detergent to AT
New oil preheating	Preheat the new oil.
Transmission oil replacement	Exchanging ATF
Transmission oil adjustment	Adjusting the quantity of fluid inside AT
Equipment Emptying	Draining left fluid inside new fluid tank and draining used fluid inside used fluid tank.
Oil absorption adjustment	When the transmission fluid level is excessive, there is no need to start the engine. Simply use the oil absorption adjustment function of the device to remove the surplus fluid.
Settings	Including system settings, sensor calibration, language selection, transmission oil selection, database, etc.

5.2 Old oil sampling

Select the “Old Oil Sampling” function in the main menu and operate according to the instructions on the interface.



When sampling the old oil, please pay attention to the following two points:

1. Make sure that the valve of the old oil sampling interface is opened; otherwise, it may cause damage to the gearbox.
2. Keep the engine running.

5.3 Filling liquid

5.3.1 Filling detergent

Before the transmission cycle cleaning operation, please ensure that the cleaner is not less than 500ml. If it is insufficient, please add more

5.3.2 Adding new oil

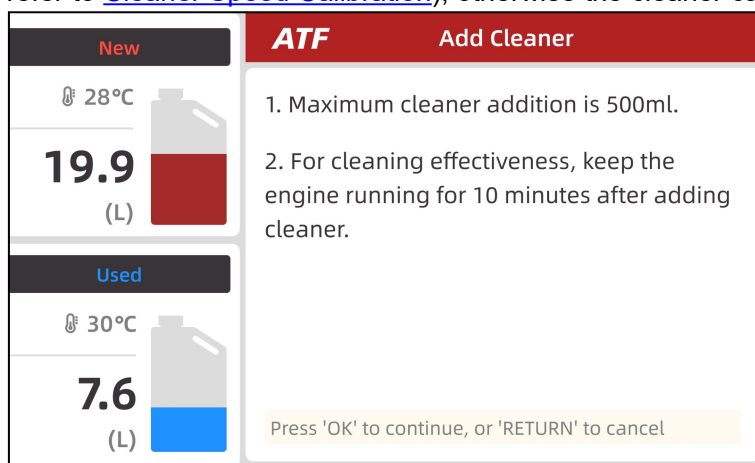
When you are ready to perform the ATF exchange operation, please fill new fluid into the new fluid tank from the fluid filling port.

5.4 Circulating cleaning

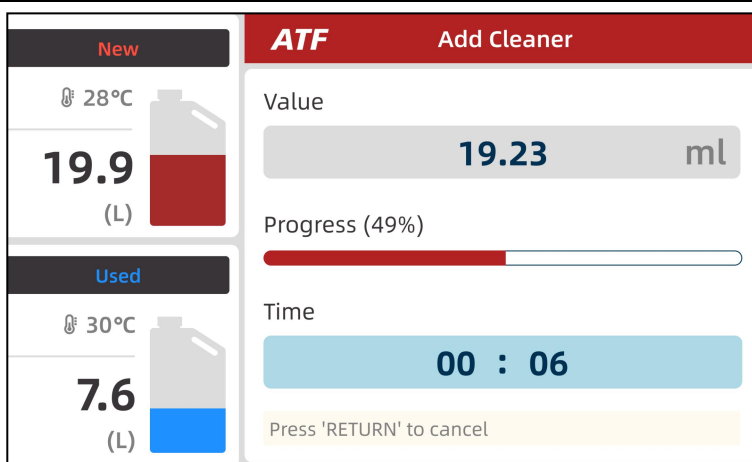
5.4.1 Fill detergent to auto transmission

- 1) Select the function of “Add ATF detergent” in main menu, and set the amount of the detergent to be filled (the setting range: 0ml~500ml).

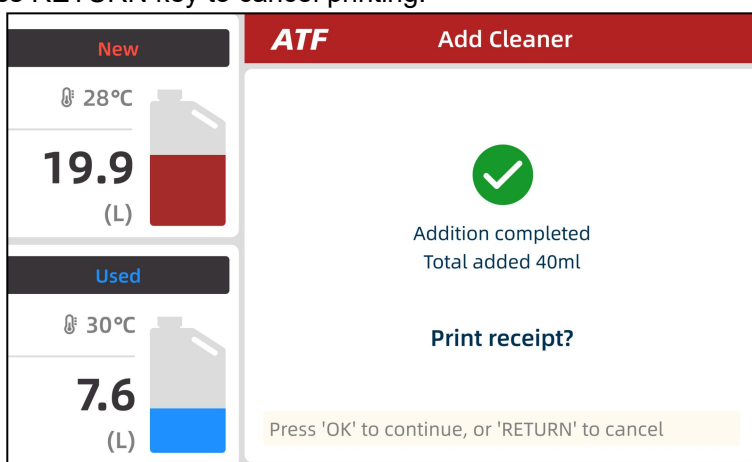
Note: Before adding cleaner, the cleaner speed needs to be calibrated (for specific calibration methods, please refer to [Cleaner Speed Calibration](#)), otherwise the cleaner cannot be added.



- 2) Input the amount to be filled. The maximum value is 500ml. Press OK key after the amount to be filled is confirmed, the detergent filled inside the detergent container will be pumped into the hose.



- 3) After the filling operation is finished, the system will automatically pop up print menu. Press OK key select print, press RETURN key to cancel printing.



- 4) Print is completed or cancelled, will pop up 10 minutes cycle cleaning countdown.

5.4.2 Circulating cleaning

After the detergent is filled into the hose, start the engine and the fluid will circulate from the ATF601+ pipelines to the Automatic Transmission. In order to speed up the circulating process, it is advisable to perform the gear-shift operation (The running time for each gear-shift should be kept for about 1 minute, which depends on actual situation. When the vehicle engine is running with high-speed, the speed should be more than 60 km/h to ensure the effect of cleaning).

The circulating cleaning option is not set in ATF601+ main menu. When the hoses are well connected, start the vehicle engine and the unit will OK the circulating process automatically. If the cleaning circulation operation is needed for a long period of time, please turn off the power supply of ATF601+.

5.4.3 Finish circulating cleaning

After the circulating cleaning operation has been lasted for more than 10 minutes, please turn off the engine to end the circulating cleaning process.

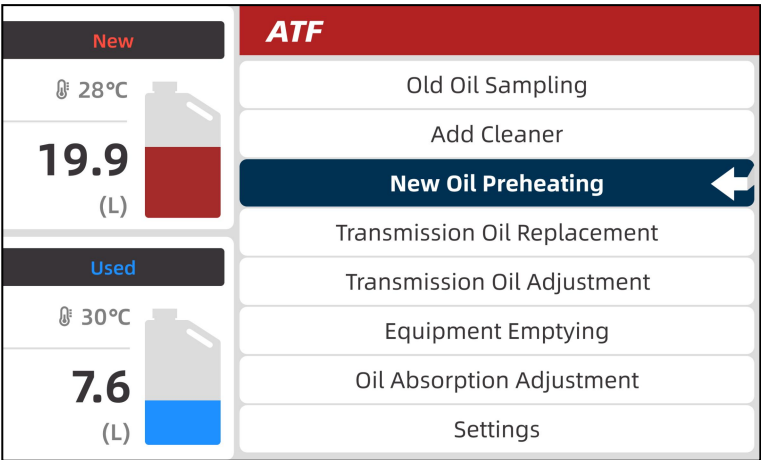
5.5 New oil preheating

Before changing the transmission oil, please preheat the new oil.

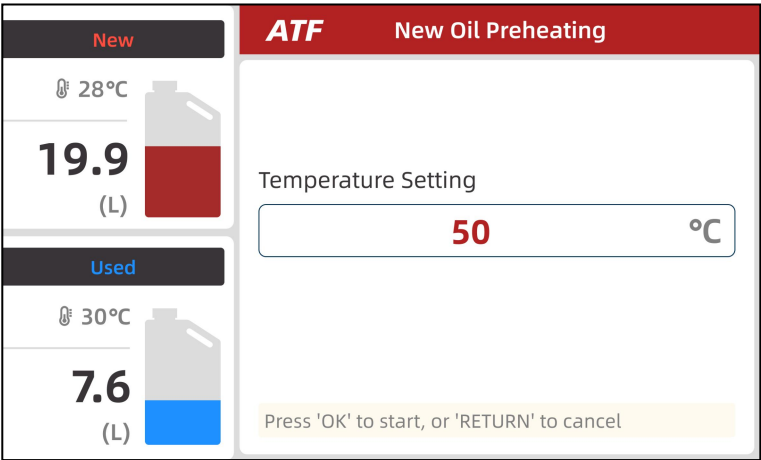
Cause: Hot oil has a lower viscosity, while cold oil has a higher viscosity. The speed of replacing hot oil is faster than that of replacing normal-temperature or cold oil. Frequently pouring low-temperature oil into a high-temperature transmission may cause thermal shock, temporary poor lubrication, or seal damage.

Preheating method:

1. Select the “New Oil Preheating” function in the main menu and press the OK key to enter the oil temperature settings interface.

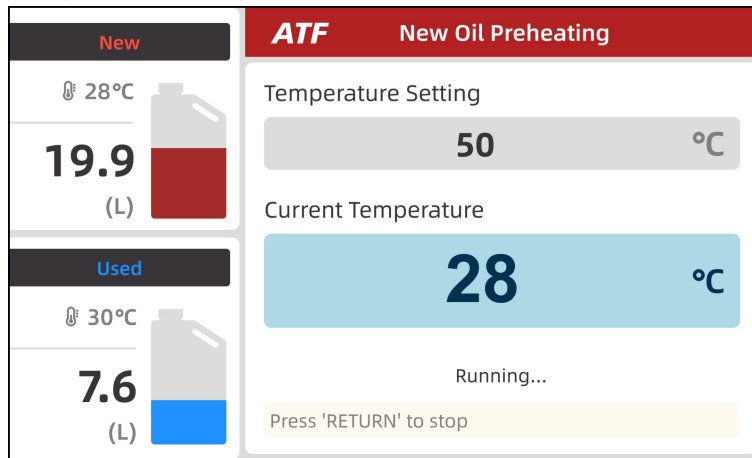


1. Set the target temperature and press the OK key to start heating the oil.



Remarks: It is recommended to set the temperature of the new oil to be the same as that of the old oil, with a maximum of 60°C.

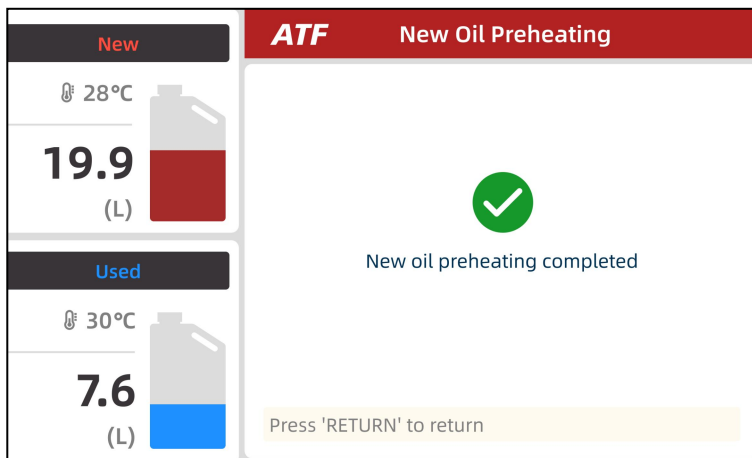
2. During the preheating process of the new oil, the real-time temperature is displayed.



Note:

It is recommended to set the new fluid temperature as close to the old fluid temperature as possible. To ensure operator safety, the maximum temperature setting should not exceed 60°C.

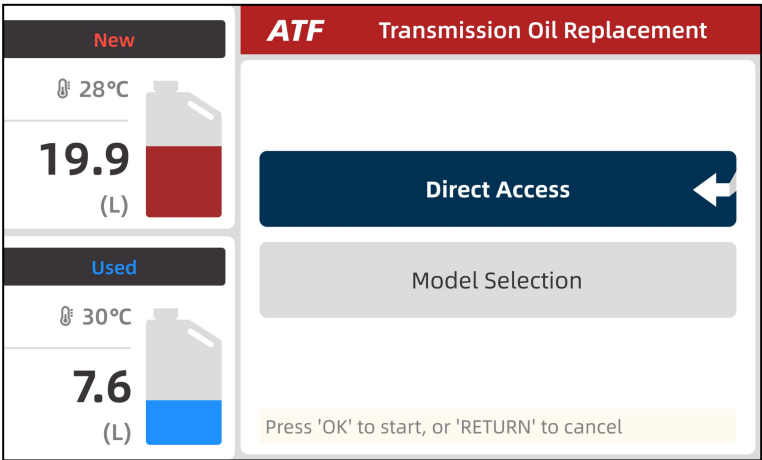
3. The new oil is preheated. You can press the  key to return to the main interface.



5.6 Transmission Oil Replacement

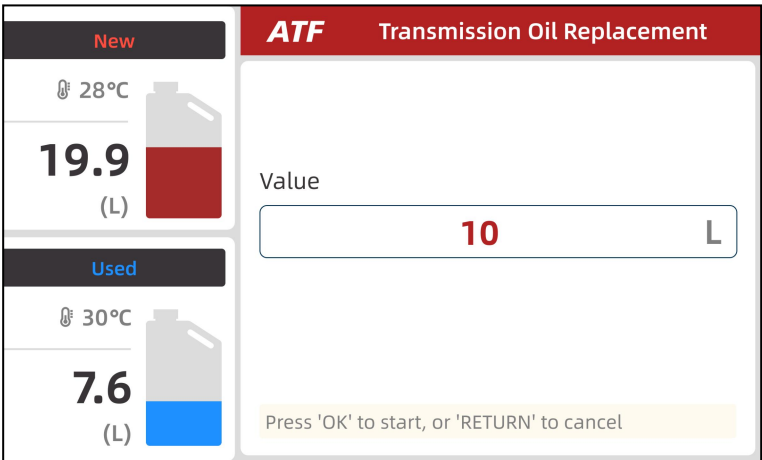
When different kind of fluid is used or the unit is stored for a long time, about 0.5L new fluid should be filled into new fluid tank. With the way of emptying the new fluid tank, clean the fluid hoses and drain the air bubbles out from the unit and then replace the transmission oil.

As shown in the image below, you can select [Direct Access] to enter the transmission oil replacement interface, or you can select [Model Selection] to view the recommended transmission oil level for the corresponding brand of vehicle in the database (the operation for selecting the vehicle model, please refer to the [5.10.5 Database](#)).

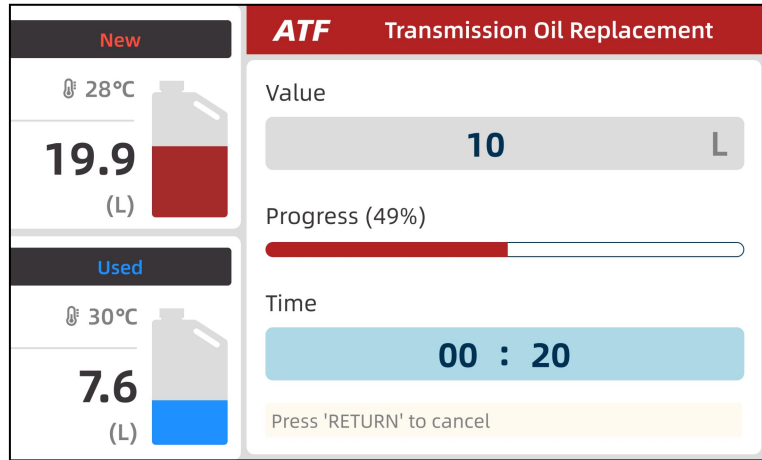


5.6.1 Direct Input

Select Direct Input, and press OK key to OK into the next interface, and then input the fluid amount to be changed.



Be sure that there is no leak in the pipelines and press OK key to exchange.



After the exchange operation is finished, the system will automatically pop up print menu. Press OK key select print, press RETURN key to cancel printing.

New		ATF Transmission Oil Replacement	
28°C		Fresh oil adjustment	10.1 L
19.9 (L)		Used oil adjustment	9.8 L
Used		Deviation	0.3 L
30°C		Print receipt?	
7.6 (L)		Press 'OK' to print, or 'RETURN' to cancel	

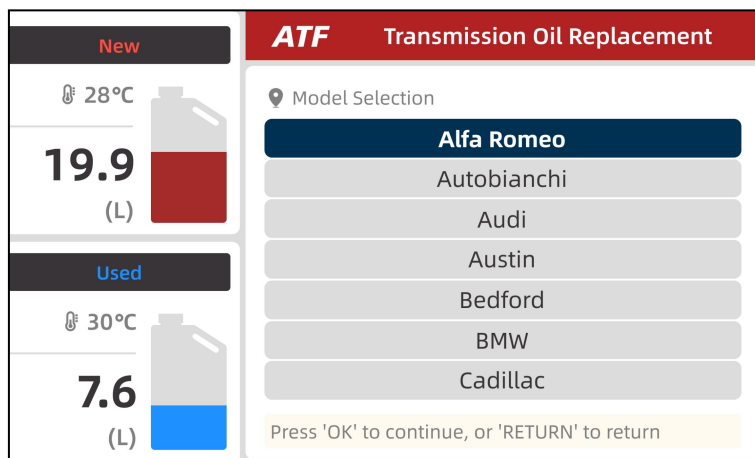
Print is completed.

5.6.2 Vehicle Selection

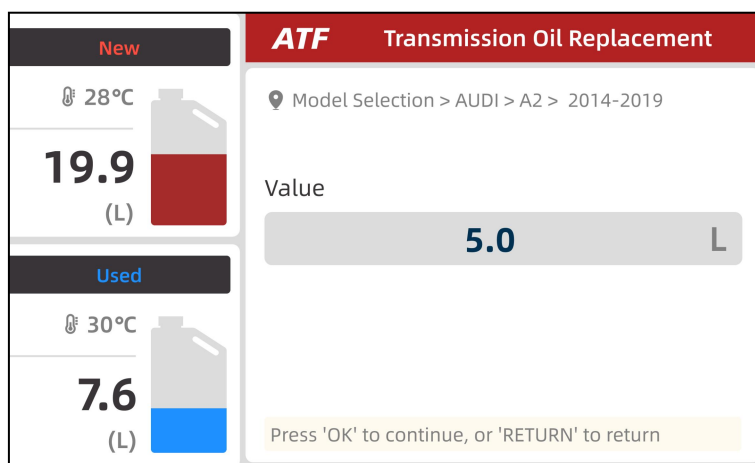
The system has preset the replacement value of the transmission oil volume for some mainstream models. Users can click [Database] to select the preset model, or click [My Database] to select a custom model.

New		ATF TRANSMISSION OIL REPLACEMENT	
28°C		Model Selection > Database	
19.9 (L)		Database	
Used		My database	
30°C		Press 'OK' to continue, or 'RETURN' to return	
7.6 (L)			

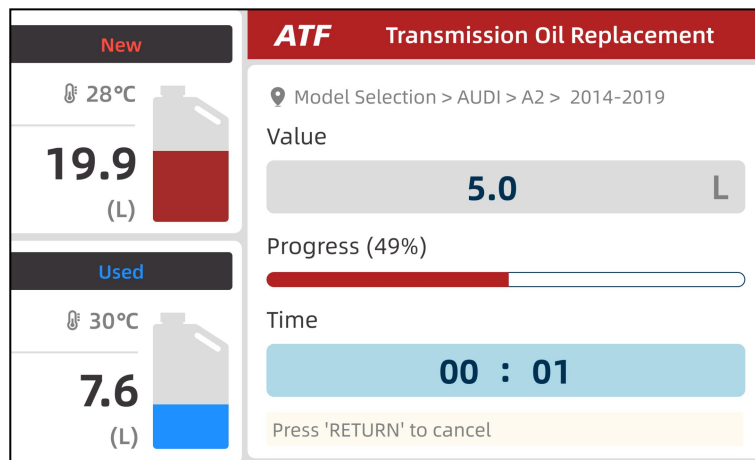
- If you use the system preset model, you can go to Transmission Oil Replacement > Model Selection > Database to set it up.



- If you choose a custom model, you can go to Transmission Oil Replacement > Model Selection > My Database to set it up. For specific setting methods, please refer to [My Database](#). Select the path of a specific vehicle model and enter the oil volume replacement interface, as shown in the figure below.



Press OK key to enter Transmission Oil Replacement interface, you can press OK key directly to start the replacement process based on the database preset volume, or you can manually modify the replacement volume and then press OK key to start the replacement process, as shown in the figure below.



After ATF Change finished, the screen will display the amount of the new fluid changed, the amount of the used fluid changed, and the error between them, user can choose whether to print the receipt.

- 1) Check the fluid level inside transmission. If the level is not enough, supplying fluid is required. Refer to [the section of Adjust fluid level](#) for the detailed operation.
- 2) Disconnect the unit and resume the hoses of the transmission.
- 3) Start the engine and check if there is oil leakage in the on-vehicle pipelines.

Note:

- **Switch each gear when exchanging. The time of each shift should stay about half minute, which depends on actual situation, the ATF inside fluid control pipeline can be exchanged.**
- **To ensure the exchange quality, the quantity of new fluid inside the unit should be 2L~3L more than that of the fluid required by automatic transmission.**
- **Do not add new fluid from the new tank during the running period of exchange. Otherwise, the operation will result in inequality amount. If there must be added the new fluid, fill after this exchange process is completed!**

5.7 Adjusting fluid level

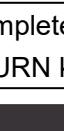
5.7.1 Increase fluid amount

When the fluid in transmission is not enough, supply it with the desired amount of fluid. Select this operation.

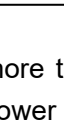
- 1) Enter the menu of Transmission Oil Adjustment, select "Filling", it indicates that the fluid is being filled into the transmission, the interface is as shown below.

New		ATF Transmission Oil Adjustment	
28°C		Filling ← Drain Press 'OK' to continue, or 'RETURN' to return	
19.9 (L)			
Used			
30°C			
7.6 (L)			

2) Input the amount to be filled, press OK key.

New		ATF Transmission Oil Adjustment	
28°C		📍 Filling Value 0.5 L Press 'OK' to start, or 'RETURN' to cancel	
19.9 (L)			
Used			
30°C			
7.6 (L)			

3) When the recharging is completed, the system will automatically pop up print menu. Press OK key select print, press RETURN key to cancel printing.

New		ATF Transmission Oil Adjustment	
28°C		📍 Filling Filling 2.58 L Deviation 0.2 L Print receipt? Press 'OK' to print, or 'RETURN' to cancel	
19.9 (L)			
Used			
30°C			
7.6 (L)			

5.7.2 Decrease fluid amount

If the quantity of the ATF is more than the standard amount, it is necessary to decrease the fluid amount inside transmission (Lower the fluid level).

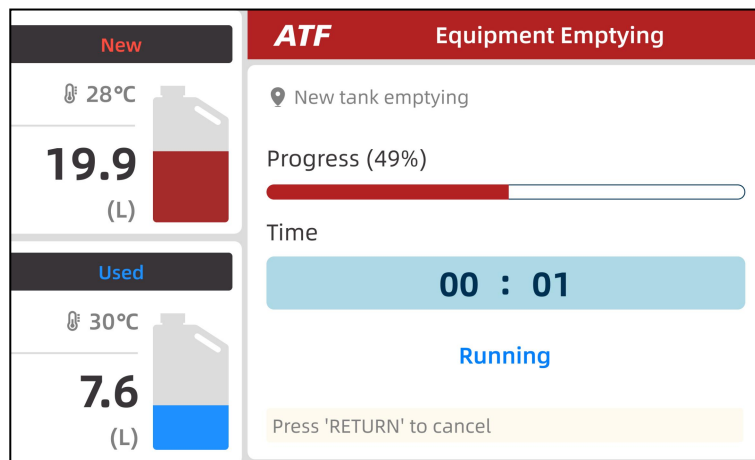
- 1) Enter the menu of Adjust fluid level, select 'Draining', it indicates that the fluid inside transmission is being drained.
- 2) Input the amount to be drained, press OK key, and then start the engine, the unit will drain the set quantity of ATF to used fluid tank.

- 3) After the adjustment is completed and the unit will prompt to finish. The system will automatically return to the main menu.

5.8 Equipment Emptying

5.8.1 Empty new fluid tank

- 1) Be sure that the two hoses marked with "TO TRANSMISSION" are not connected with the vehicle to be maintained.
- 2) Open the handle valve on the fluid hose marked with "EMPTY", and then place the hose into container.
- 3) The system will enter into the interface for Empty new tank, and automatically start fluid draining operation.



- 4) The unit will drain fluid until the hose marked with "Empty" has no oil draining or press RETURN key to stop draining operation.

5.8.2 Empty used fluid tank

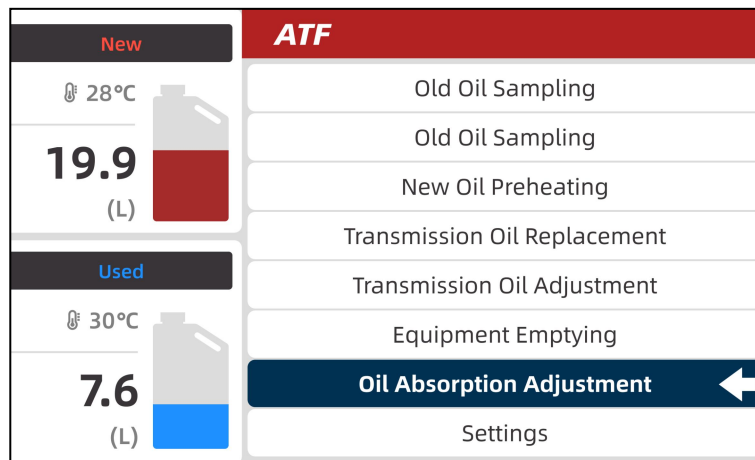
- 1) Be sure that the two hoses marked with "TO TRANSMISSION" are not connected with the vehicle to be maintained.
- 2) Open the handle valve on the fluid hose marked with "EMPTY", and then place the hose into container.
- 3) The system will enter into the interface for Empty used tank, and automatically start fluid draining operation.
- 4) The unit will drain fluid until the hose marked with "Empty" has no oil draining or press RETURN key to stop draining operation.

5.9 Oil absorption adjustment

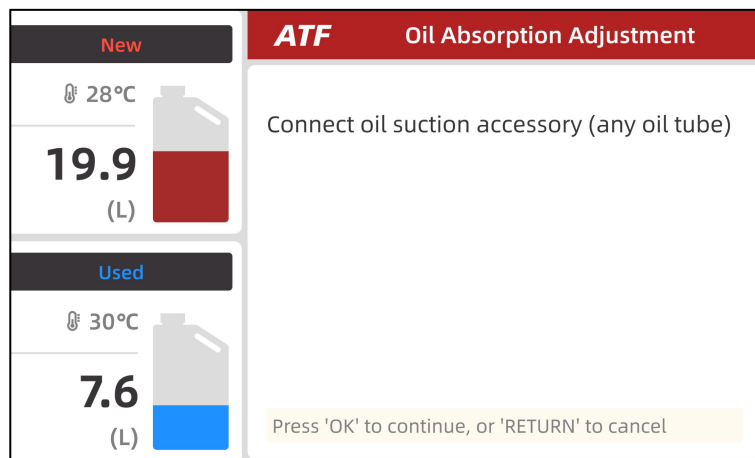
When the volume of oil in the automobile transmission is more than the standard volume (for example, when too much new oil is added), a certain volume of oil needs to be sucked out (lowering the transmission oil level). During the oil absorption process, there is no need to start the engine.

The methods are as follows:

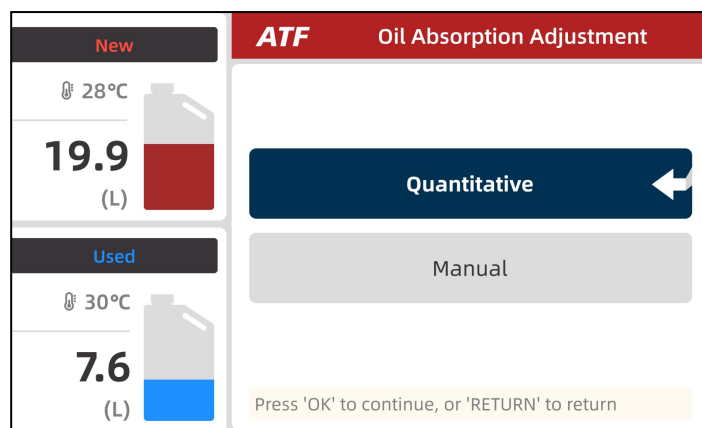
- 1) Select the "Oil Absorption Adjustment" function in the main menu and press the OK key.



- 2) No need to start the engine, connect the oil suction accessory (oil tube) to one of the device oil tubes (for device oil tubes, please refer to 17 or 19 of [4.1 Device appearance](#)), insert the oil suction accessory (oil tube) into the transmission, and press the OK key to enter the oil absorption mode selection interface.



- 3) Set the oil absorption adjustment mode. You can choose Quantitative or Manual.
- Select quantitative oil absorption
 - a. Select “Quantitative”, and press the OK key to enter the oil absorption volume settings interface.



- b. Set the volume of oil to be sucked out, and press the OK key to start the oil absorption.

New	ATF Oil Absorption Adjustment
28°C 19.9 (L)	Quantitative Value 0.5 L
Used 30°C 7.6 (L)	Press 'OK' to start, or 'RETURN' to cancel

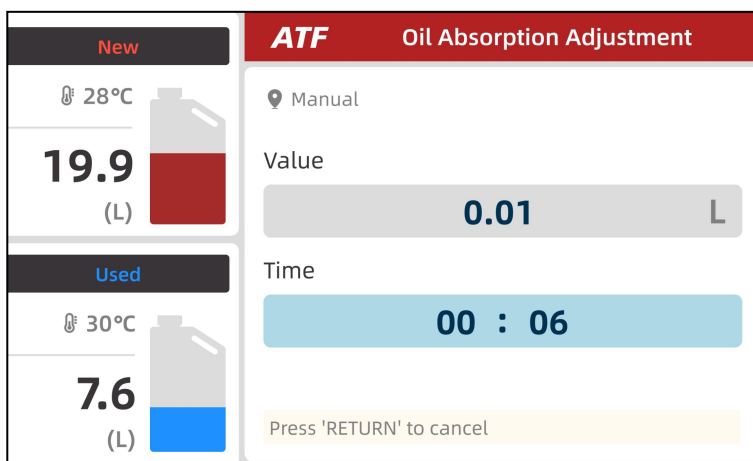
- c. During the oil absorption process, the interface will display the oil absorption volume, progress and time in real time.

New	ATF Oil Absorption Adjustment
28°C 19.9 (L)	Quantitative Value 0.5 L
Used 30°C 7.6 (L)	Progress (32%)
	Time 00 : 01
	Press 'RETURN' to cancel

- d. After the oil absorption is completed, press the ↶ key to return.
- Select manual oil absorption
 - Select "Manual".

New	ATF Oil Absorption Adjustment
28°C 19.9 (L)	Quantitative
Used 30°C 7.6 (L)	Manual ↶

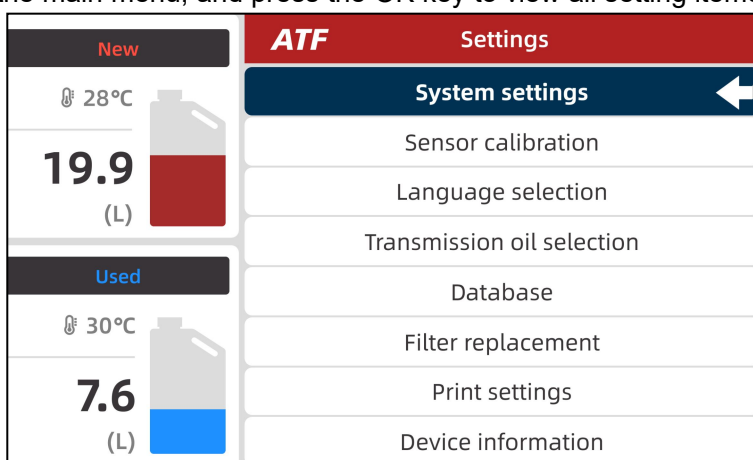
- b. Press the OK key to enter the manual oil absorption interface, which displays the oil absorption volume and oil absorption time in real time.



- c. After the oil absorption is completed, press the  key to return.

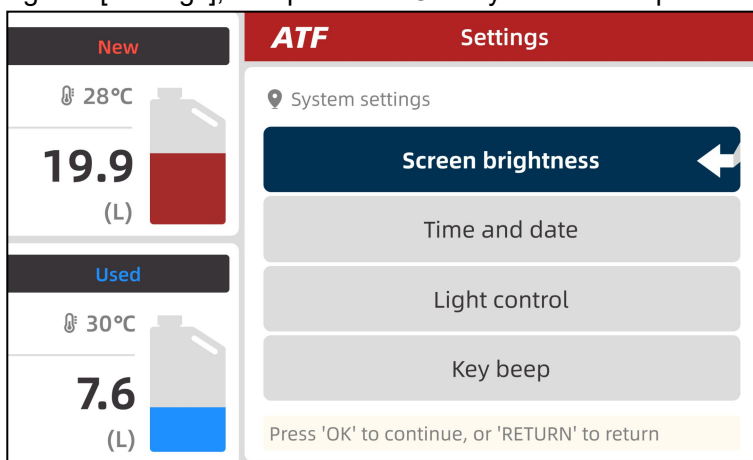
5.10 Settings

You can set system parameters, sensor calibration, select the system language, select the type of transmission oil, customize the database, change the filter, view history and view device information. Select [Settings] in the main menu, and press the OK key to view all setting items.



5.10.1 System setting

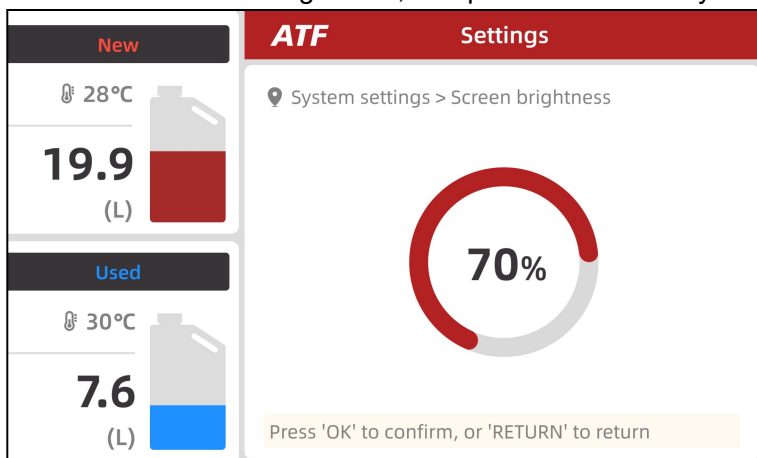
Select "System Settings" in [Settings], and press the OK key to view all options of system settings.



5.10.1.1 Screen Brightness Adjustment

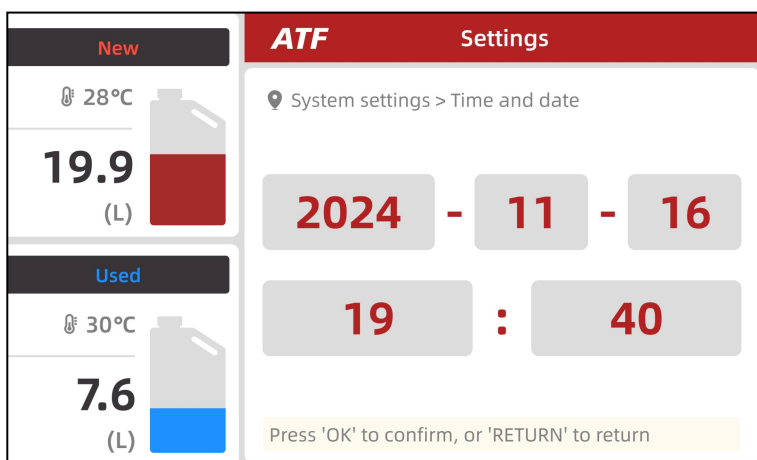
Select Screen Brightness and press OK key to OK the setting interface as shown below. Press

[UP]/[DOWN] key to select the desired brightness, and press RETURN key to confirm and return.



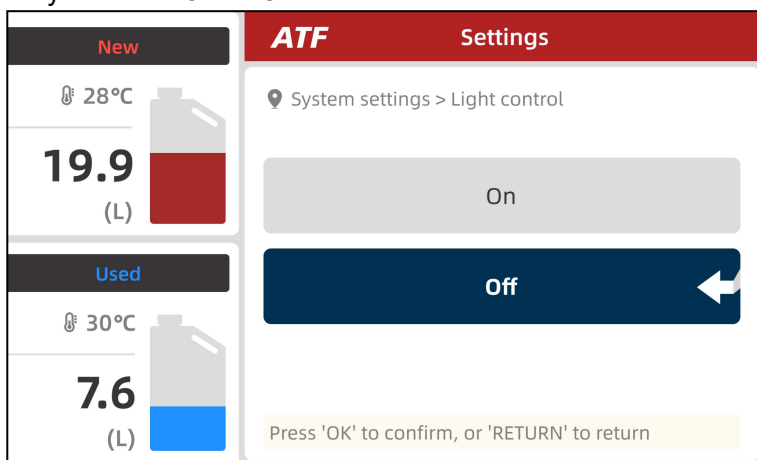
5.10.1.2 Time and date

Select [Date & Time] option on the Main Menu of [Settings] and then press OK key to OK the interface as shown below.



5.10.1.3 Light control

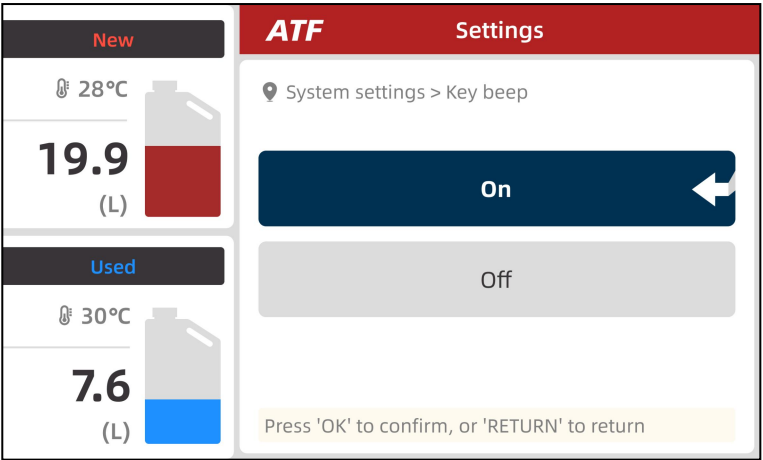
Select the light control settings, press the OK key, enter the settings interface, as shown in the figure below. Press the OK key to select On or Off.



5.10.1.4 Key beep

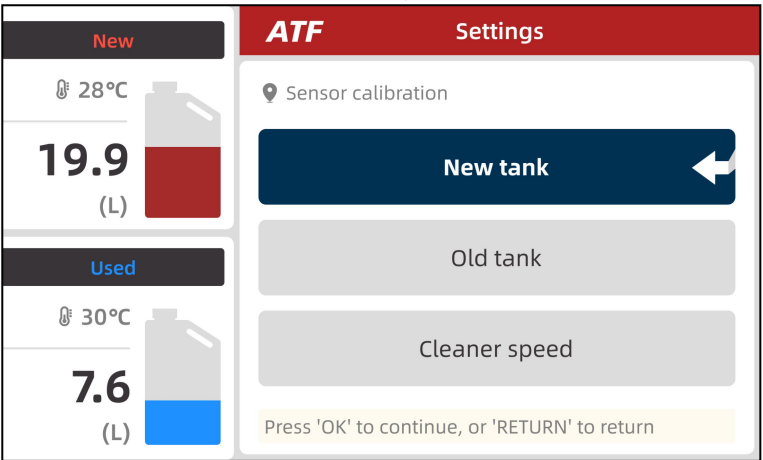
Select the "Key Beep" option in the [System Settings] main menu, press the OK key, and enter the sensor calibration menu, as shown in the figure below.

Select the key beep settings, press the OK key, enter the settings interface, as shown below. Press the OK key to select On or Off.



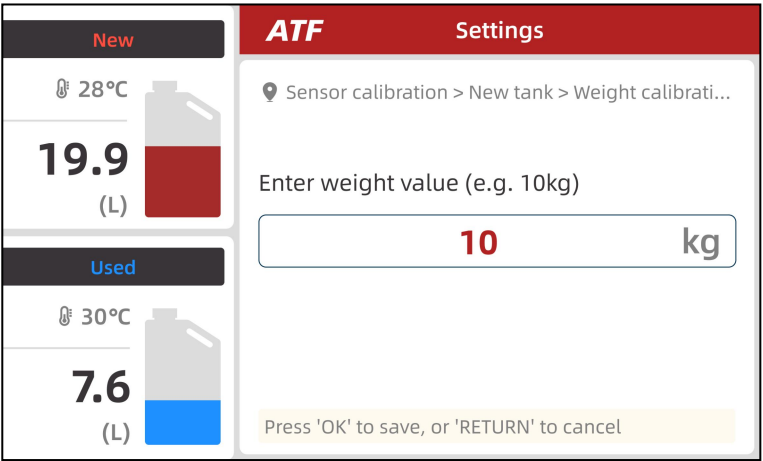
5.10.2 Sensor calibration

It includes the calibration of the weight sensor and the cleaner speed sensor. Select the “Sensor Calibration” option in the [System Settings] main menu, press the OK key, and enter the sensor calibration menu, as shown in the figure below.

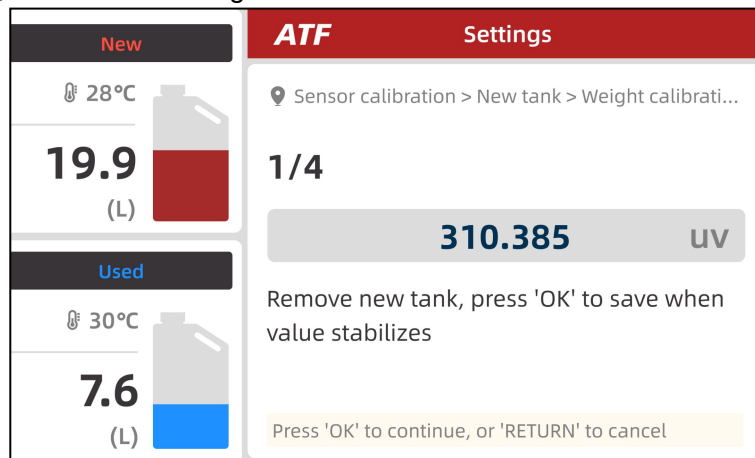


5.10.2.1 New tank sensor calibration

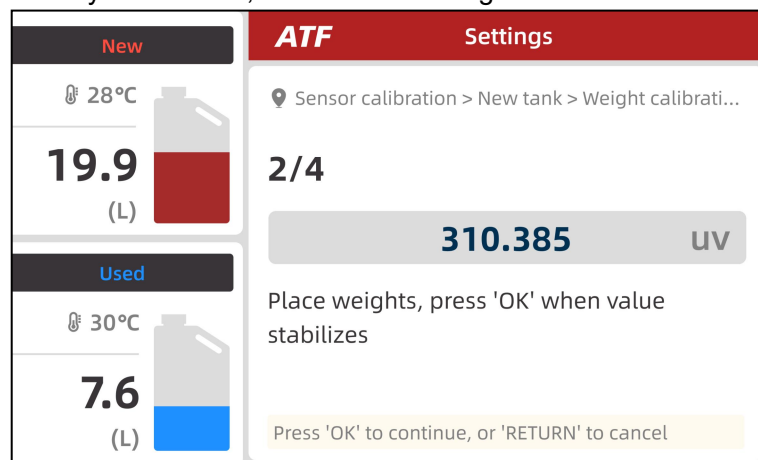
1. The weight calibration method is as follows:
 - 1) Click “New Tank” and enter the “Weight Calibration” interface, enter the weight of weights (it is recommended to be 20 kg), as shown in the figure below.



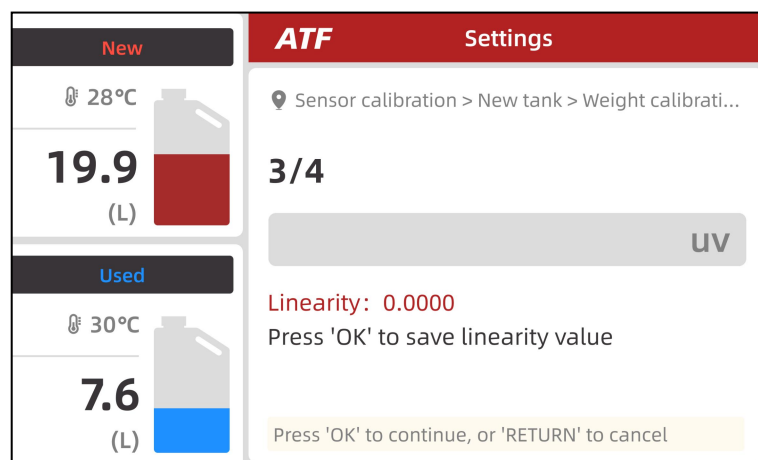
- 2) Remove the new tank, and when the value on the display screen is stable, press the OK key to save the data, as shown in the figure below.



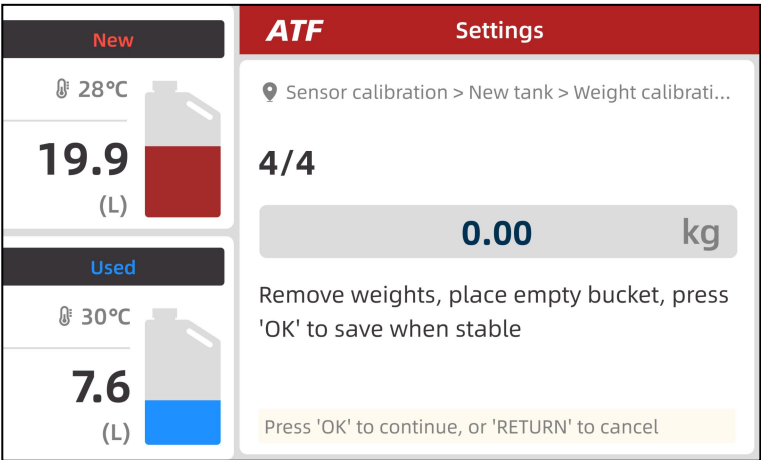
- 3) Place the weights (it is recommended to be 20kg), wait for the displayed value to stabilize, and then press the OK key to continue, as shown in the figure below.



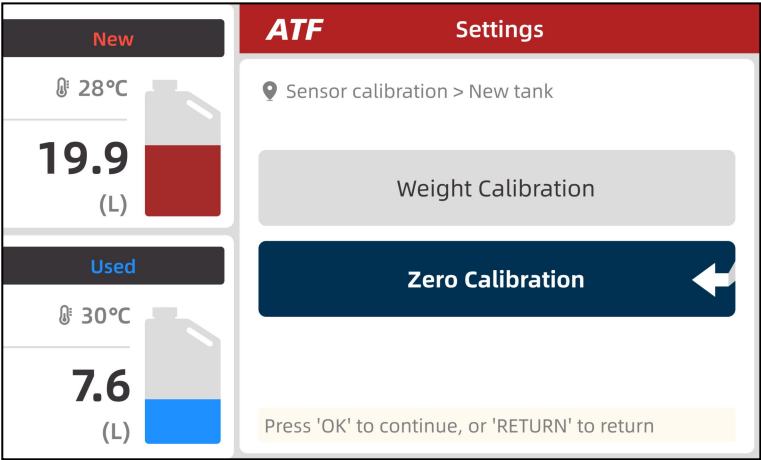
- 4) When the value is stable, press the OK key to save the linearity value, as shown in the figure below.



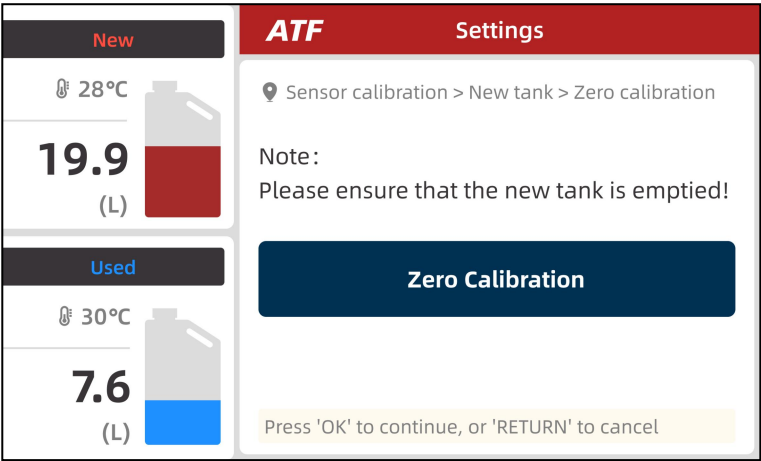
- 5) Remove the weights and place an empty new tank. When the value is stable, press the OK key to save the data, as shown in the figure below. Complete the calibration of the new tank. When new oil is added to the new tank, the display screen shows the oil volume value (in liters).



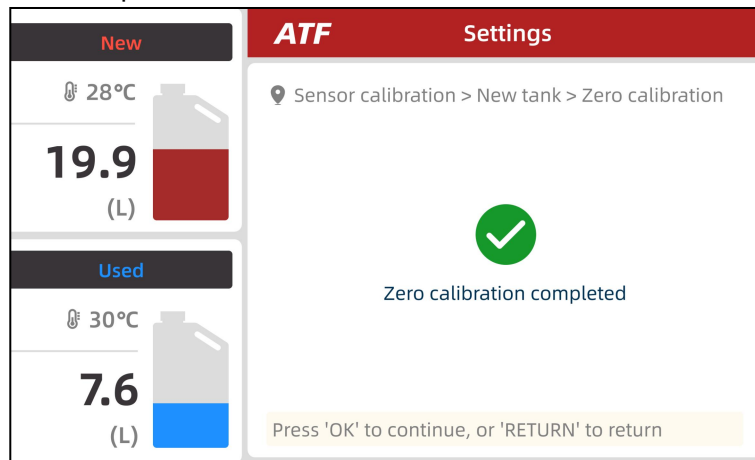
2. Calibration reset method.
- 1) Click “Calibration Reset”.



- 2) After confirming that the new tank is empty, click “Calibration Reset”.



- 3) Calibration reset is completed.



5.10.2.2 Old tank sensor calibration

When the weights of the new tank and old tank deviate due to transportation, storage, vibration, etc., the sensor calibration is required.

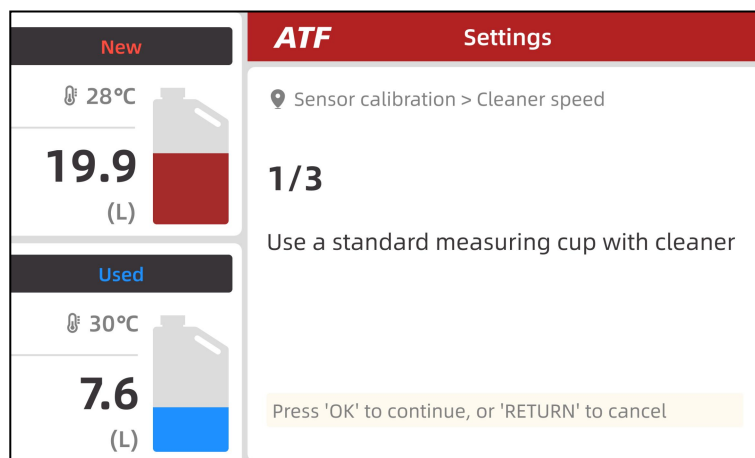
The calibration method for the old tank is the same as that for the new tank.

5.10.2.3 Cleaner speed calibration

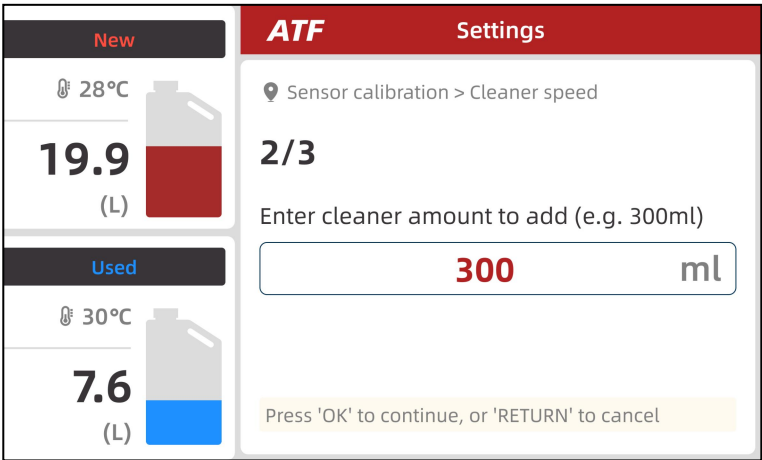
When using the cleaner adding function for the first time, the cleaner speed needs to be calibrated.

Calibration steps:

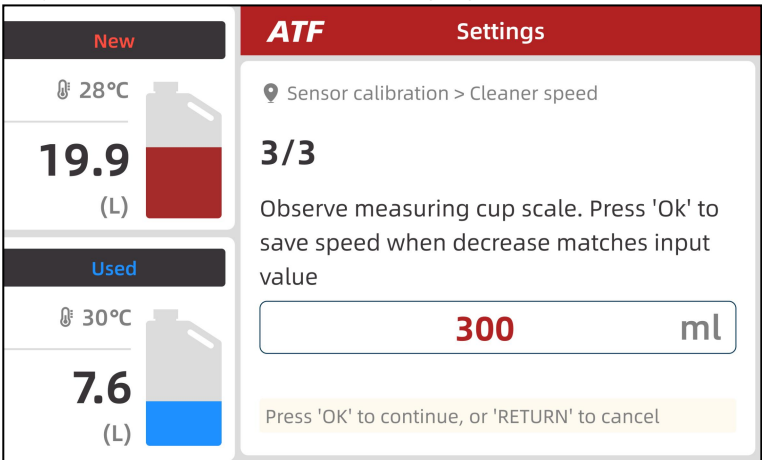
- 1) Enter Sensor calibration > Cleaner speed, follow the interface prompts and add a certain amount of cleaner from an external container into the cleaner bottle of the device, then press the OK key to continue.



- 2) According to the interface prompts, set the required cleaning dosage (for example, 300ml). After pressing the OK key, the equipment starts the oil pump to draw cleaner from the cleaner bottle and quantitatively delivers it to the external gearbox or test fixture.

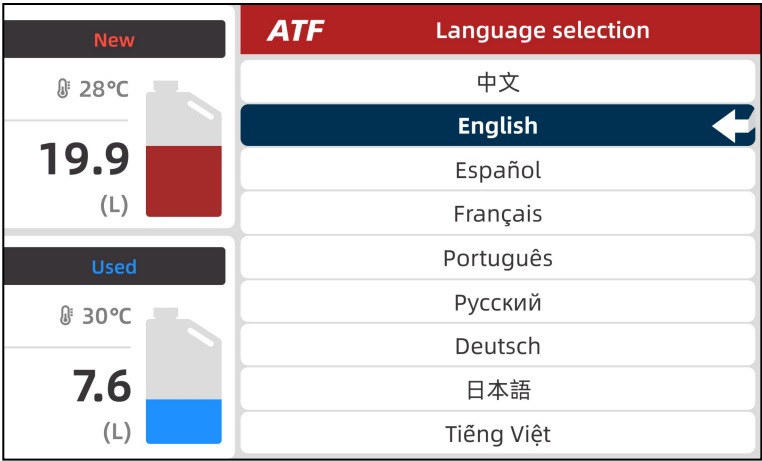


- 3) Observe the change in the scale of the cleaner bottle. When the amount of cleaner remaining reaches the target output volume (for example, 300ml), manually press the OK key to record the current time. The system will calculate the cleaning agent flow rate based on this time.



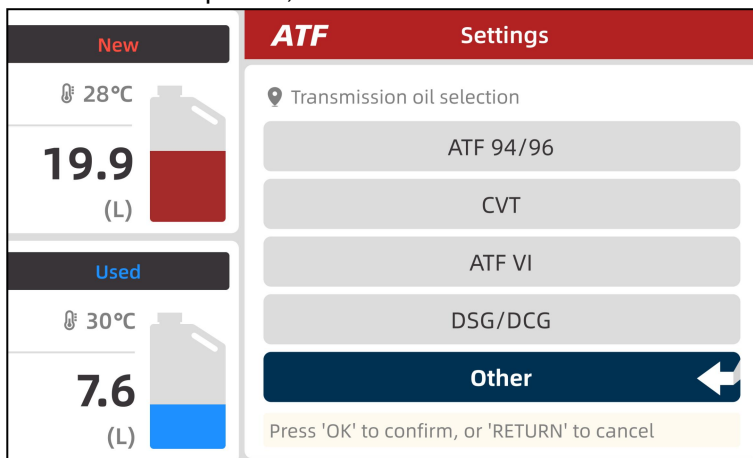
5.10.3 Language setting

Select “Language Selection”, press the OK key to enter the settings interface, as shown in the figure below. Press [UP]/[DOWN] and the OK key to select the desired language.



5.10.4 Select transmission fluid

This function can choose the type of transmission fluid. There are four types and a kind of other types, if you don't clear transmission fluid species, can choose other.



5.10.5 Database

When changing the transmission oil, in order to facilitate users to quickly select the replacement value of the oil volume, the replacement value of the transmission oil volume of mainstream models is preset in the system by presetting the database.

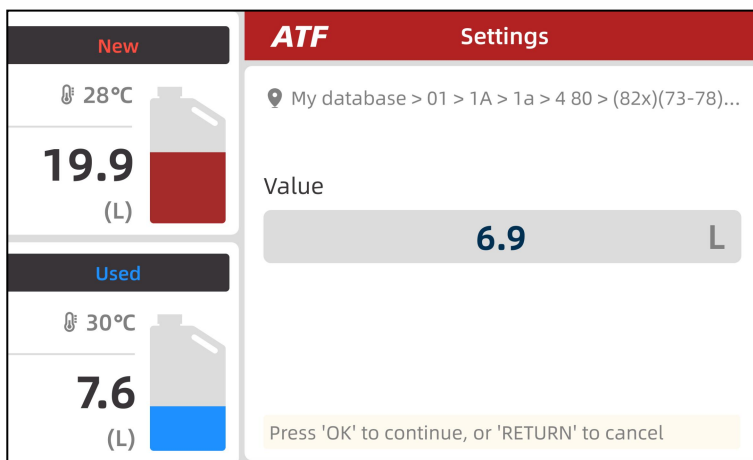
5.10.5.1 Database

The system comes with a preset database that users can directly select and use, but cannot modify.

5.10.5.2 My database

The device supports users to customize the replacement value of the transmission oil volume according to the model. The methods are as follows.

1. Go to Settings > Database > My Database.
2. Select [+], press the OK key to enter the new interface, enter the name (for example, enter the car brand name BMW), and press the OK key to confirm.
3. Press the OK key to enter BMW. You can continue to add submenus, such as the 3 Series, 5 Series, and 7 Series under BMW. There are also 302i, 321i, etc. under the 3 Series. Here, multiple intermediate submenus are no longer entered. Only the last step of entering the oil replacement volume (e.g., 12, unit: L) is reflected. The interface is shown in the figure below.



Enter the oil replacement volume according to the interface prompts, press the OK key to confirm, and

press the  key to abandon the input.

4. After setting the oil replacement volume, press the  key to return to the main interface.

5.10.5.3 Delete model data

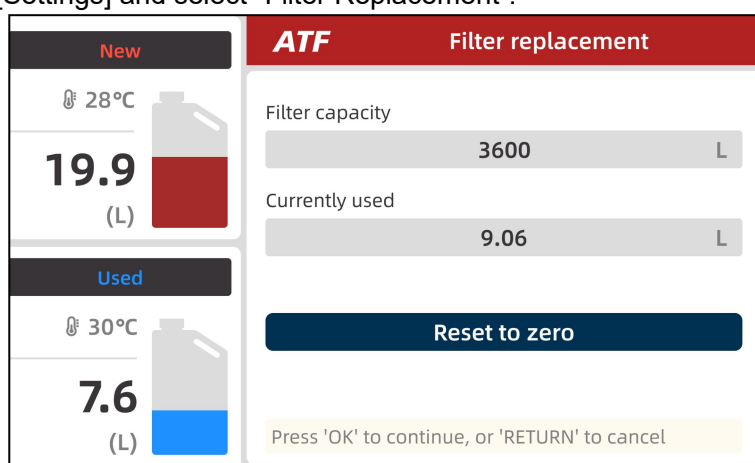
The system supports users to delete custom databases. The methods are as follows:

1. Go to Settings > Database > My Database.
2. Press the Up or Down key to select the database to be deleted.
3. Press the DEL key, and the system pops up a deletion confirmation dialog box.
4. Press the OK key to confirm the deletion.

5.10.6 Filter replacement

After replacing the filter, before using the new filter, please reset the capacity of filter used to zero.

1. Enter the menu [Settings] and select “Filter Replacement”.

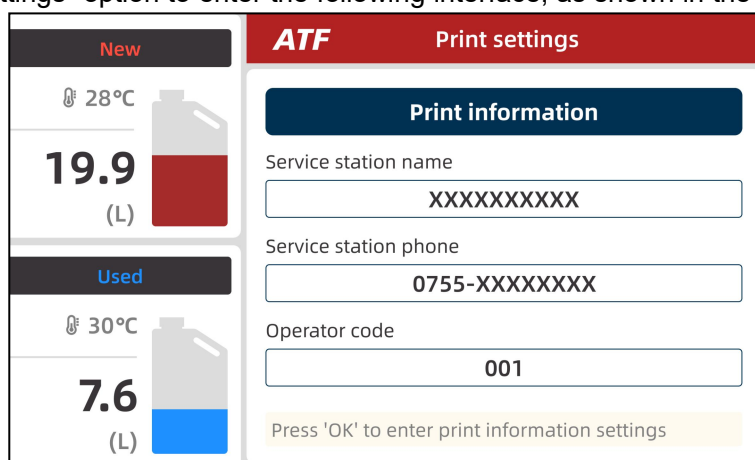


ATF		Filter replacement
New	28°C	Filter capacity
19.9 (L)		3600 L
Used	30°C	Currently used
7.6 (L)		9.06 L
		Reset to zero
		Press 'OK' to continue, or 'RETURN' to cancel

2. Select [Reset to Zero] and press the OK key to reset.

5.10.7 Print Setting

Select the “Print Settings” option to enter the following interface, as shown in the figure below.



ATF		Print settings
New	28°C	Print information
19.9 (L)		Service station name
Used	30°C	XXXXXXXXXX
7.6 (L)		Service station phone
		0755-XXXXXXXX
		Operator code
		001
		Press 'OK' to enter print information settings

“Print Information” can select the output content of the printout. The unselected options will not be printed when printing, as shown in the figure below. Press the OK key to select and unselect.

New		ATF Print settings	
28°C		Customer name	✓
19.9 (L)		Date	✓
30°C		Car brand	✓
7.6 (L)		License plate number	
		Maintenance mileage	
		Select density	✓
		Total amount	

Description: The density and total weight can only appear in the print of the “Transmission Oil Replacement” and “Transmission Oil Volume Adjustment” functions, and the density (see the “Transmission Oil Selection” function) and weight of the selected oil type are printed out.

5.10.8 Device information

Select the device information option and press OK key. The device information is displayed as shown below.

New		ATF Device information	
28°C		Hardware version	V01.00
19.9 (L)		Software version	V1.0.0
30°C		Serial number	803020000001
7.6 (L)		Boot time	00:30:32

6. Tablet Connection (optional)

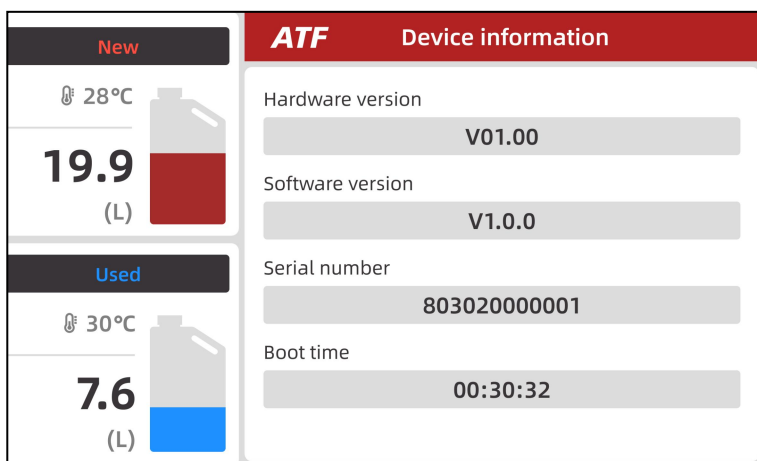
This device can be used with a tablet to improve user efficiency. The tablet supports operations for major functions such as oil replacement and cleaning.

The connection method of tablet and ATF601+:

1. Power on the ATF601+.

Note: The Bluetooth function is enabled when the ATF601+ is on.

2. Check and record the serial number of ATF601+, which will be used for subsequent identification and connection with the Bluetooth device.
 - Method 1: Check the serial number on the label on the back of the device.
 - Method 2: Check the device information, and the steps are as follows.
 - (1) Tap [Setting] from the main menu.
 - (2) Tap [Device information] to check and record the serial number of ATF601+.

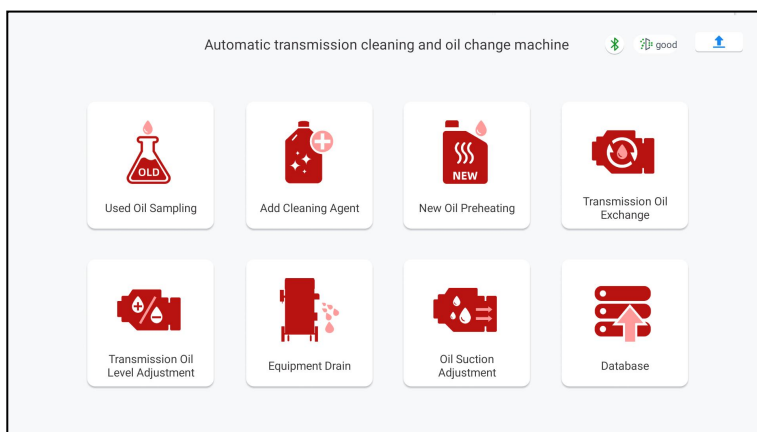


3. Enable the Bluetooth function of tablet. You can slide down the screen of tablet to access the system quick setting bar, and tap the Bluetooth icon to enabled the Bluetooth function.

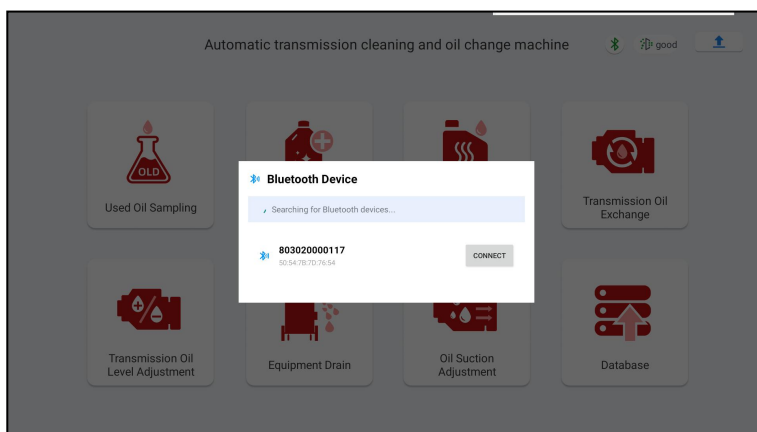
4. Tap [ATF601+] app on the tablet to enter the ATF601+ function interface.

Note: If [ATF601+] application is not displayed on your tablet, please install it first, or contact technical support to obtain the installation package.

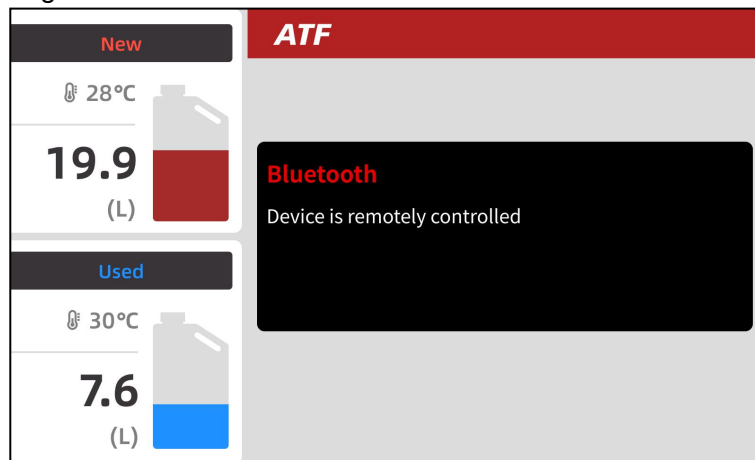
5. Click the Bluetooth icon  in the upper right corner of the interface to start searching for nearby Bluetooth devices.



6. Locate the device with the corresponding serial number in the device list and tap [Connect] to establish a Bluetooth connection.



7. Once the Bluetooth connection is successful, the device's display will show a successful connection message.



7. Warning

Warning sound: When there is no fluid in the new tank or the operation is completed, The device has entered the standby state.

8. Maintenance

- Pay attention to each connection to check if there is any leakage during fluid exchange. When any leak is found, stop the ATF601+ immediately and check for the unit. Start to exchange fluid again after reconnection is made.
- Before cleaning up the unit, the used fluid should be drained out from the used fluid tank and the new fluid should be drained out from new tank and stored in container after every usage to protect the electronic scale is on the no load state at non-work condition.
- Keep the new fluid tank clean.
- Please recalibrate the electronic scale after replacing the main-board and/or the electronic scale itself.

9. Common Problems and Solutions

9.1 The device LCD has no display and the device cannot be turned on

Fault cause 1: The power supply is not reliably connected;

Solution: Reliably connect the power supply.

Fault cause 2: The fuse is open-circuited;

Solution: Replace the fuse.

9.2 Abnormal display of new oil volume

Fault cause 1: The calibration of the electronic scale is abnormal;

Solution: Recalibrate the electronic scale.

Fault cause 2: The electronic scale data cable is detached;

Solution: Reliably connect the electronic scale data cable.

9.3 Uneven volume of transmission oil replacement

Fault cause 1: The electronic scales of the new and old tanks are not correctly calibrated;

Solution: Recalibrate the electronic scales of the new and old tanks.

9.4 Some function keys cannot be switched

Fault cause 1: The flat cable is plugged into the corresponding socket on the PCB in reverse;

Solution: Correct the direction of the flat cable.

Fault cause 2: The key-press film is damaged;

Solution: Replace with a new key-press film.

Fault cause 3: There is a problem with the circuit board;

Solution: Replace the circuit board.

9.5 Blue screen at startup

Fault cause 1: The LCD data cable is not connected well;

Solution: Reliably connect the data cable.

Fault cause 2: The contrast settings are abnormal;

Solution: Set the contrast to a value of about 15 according to the manual.

Fault cause 3: There is a problem with the display board or motherboard;

Solution: Replace the display board or motherboard.

9.6 Vibration and noise increase significantly

Fault cause 1: The oil pump fastening screws are loose;

Solution: Check and tighten the screws.

Fault cause 2: The pipeline at the outlet of the oil pump is severely twisted and bent;

Solution: Restore the excessively bent part of the pipeline to make the fluid flow smoothly.

Standard Connectors

No.	ERP Code	Picture	Size	Applicable Car Type
A01	503240060		Φ8, Φ10, Φ5	General type (TOYOTA, MITSUBISHI SPACE WAGON GLXI) LEXUS ES300, HONDA and NISSAN car type
Φ8 Hose	606010007		Φ8	General type (TOYOTA, MITSUBISHI SPACE WAGON HONDA and NISSAN GLXI) LEXUS ES300
Φ10 Hose	606010008		Φ10	
Φ12 Hose	606010009		Φ12	
A03A	503240064		M16×1.5 (outside)	One group CADILLAC, BMW 750 AT type 4HP-22 4HP-24 A421, MITSUBISHI V6, 3000
A03B	503240028		M16×1.5 (inside)	One group CADILLAC, BMW 750 AT type 4HP-22 4HP-24 A42
A05A	503240029		M18×1.5 (outside)	EUROPEAN Eg: New VECTRA, PASSAT
A05B	503240030		M18×1.5 (inside)	EUROPEAN New VECTRA, PASSAT
A06A	503240031		G1/4 (outside)	CHRYSLER GRAND VOYAGER, CHRYSLER 300
A06B	503240032		G1/4	CHRYSLER 13.157mm GRAND VOYAGER, CHRYSLER 300
A07A	503240033		M18×1.5 (outside)	EUROPEAN New VECTRA

A07B	503240034		M18×1.5 (inside)	EUROPEAN New VECTRA
A08A	503240035		UNF1/2-20 (outside)	GENERAL MOTORS LINCOLN, CADILLAC
A08B	503240036		UNF1/2-20 (inside)	GENERAL MOTORS LINCOLN, CADILLAC
A10A	503240037		UNF1/2-20 (outside)	FORD, eg: VOLVO, FORD CHRYSLER: DAIMLER-BENZ
A10B	503240038		UNF1/2-20 (inside)	FORD, eg: VOLVO, FORD CHRYSLER: DAIMLER-BENZ
A11A	503240039		Z1/4 *18 13.616	FORD LINCOLN, VOLVO
A11B	503240040		Z1/4	FORD LINCOLN, VOLVO
A12A	503240041		UNF5/8-18 (outside)	FORD
A12B	503240042		UNF5/8-18 (inside)	FORD CADILLAC
A13A	503240043		UNF5/8-18 (Outside)	GENERAL MOTORS CHRYSLER
A13B	503240044		UNF5/8-18 (Inside)	CHRYSLER GENERAL MOTORS
A14A	503240046		UNF5/8-18 (Outside)	FORD, VOLVO
A14B	503240047		UNF5/8-18 (Inside)	FORD, VOLVO
A15A	503240048		UNF5/8-18 (outside)	CHRYSLER Benxc200, s325i GENERAL MOTORS

A15B	503240049		UNF5/8-18 (inside)	CHRYSLER Benxc200, s325i GENERAL MOTORS
A16A	503240050		M18×1.5 (outside)	EUROPEAN
A16B	503240051		M18×1.5 (inside)	EUROPEAN
A17A	503240052		Φ14.85 (outside)	-
A17B	503240053		Φ14.95 (inside)	EUROPEAN
A20A	503240054		UNF1/2-20 (outside)	FORD
A20B	503240055		UNF1/2-20 (inside)	FORD
A43	503240056		M12×1.5	-
A43 Extended Connector	501040001		M12×1.5	-
A44	503240057		M12	-

Note: In the table above, if the **Applicable Car Type** field is blank, the corresponding connector is a universal connector that can be used on various car models.

Warranty

This WARRANTY applies only to customers and dealers who have purchased SmartSafe products through normal procedures.

Within one year from the date of delivery, SmartSafe Company shall guarantee the defects of its electronic products caused by materials or processes. Damage of the equipment or components caused by abuse, unauthorized modification, use for purposes other than the design of the product, or failure to operate in the way specified in the instruction shall not be covered by this warranty.

Disclaimer

The warranty mentioned above may supersede any other warranty.

Order notification

The replaceable parts and optional parts can be ordered directly from the suppliers authorized by SmartSafe. Please specify when ordering:

- Quantity ordered
- Part number
- Part name

Customer Service Center

If the equipment needs to be repaired, please send the equipment to SmartSafe, together with the purchase invoice and problem description. If the equipment is within the scope of the warranty, SmartSafe offer free maintenance; If the equipment is outside the scope of the warranty, SmartSafe will charge for maintenance and return freight.

Address of SmartSafe Company:

Building 1, Shanglilang Zhichuangyuan, Nanwan Street, Longgang District, Shenzhen, Guangdong, China

Statement: The Company reserves the right to change the product design and specifications without prior notice. The appearance and color of the object may be different from that shown in the instruction manual. The object shall prevail. We have tried our best to make all the descriptions in the book accurate, but there are still some inaccuracies. If you have any doubt, please contact the distributor or after-sales service center. The company will not assume any consequences caused by misunderstanding.