

EN

INSTRUCTION MANUAL

PRODUCT'S PRESENTATION

The transmission fluid will go bad after a period of usage. If the transmission fluid is not changed completely, it may cause the abnormality to the transmission. When exchanging the liquid is very important to control the exact quantity, because the excessive or shortage filling may cause damage to the transmission system. So, it is indispensable a machine able to ensure that the exchange liquid process is done correctly.

This automatic transmission oil exchange machine can help you to exchange the correct quantity of liquid in just 20 minutes, with a fluid exchange rate of nearly 100%. So, you can improve the performance of the transmission system and extend its work life.

This product main features are:

- Automatic filling of transmission fluid.
- Multi-language menu (20 languages).
- Automatic identification for the fluid flow direction (inlet/outlet)
- Automatic cleaning.
- Automatic exchange of new/used fluid.
- Visual display of the fluid pressures.
- Accurate display of the transmission fluid temperature.
- Intelligent electronic control to make sure which is the correct quantity of used oil that need to be changed.
- Database upgradeable
- Includes adapters for different brands.

SAFETY INSTRUCTIONS



Read carefully this owner's manual before using the product.

Failure to comply with these instructions could result in personal injury and/or damage to the product.

Please keep the instructions for future reference.

Do not smoke in proximity to the machine while it is in operation.

Do not use the machine in proximity to sources of heat or fire.

Do not expose to direct sunlight or rain.

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.

Vehicles expel gases that can be harmful. Use only in a well-ventilated work area.



Wear safety goggles and mask.
Keep away from the heat parts such as exhaust hoses and radiators.

When disconnecting any connector, wrap it with towel to prevent the fluid from spurting out.

Always make the drive wheels hanging.

TECHNICAL SPECIFICATIONS

Exchange speed: 2l/min

Maximum power: 150W

Pressure gauge: 0-150psi

New oil capacity: 20l

Used oil capacity: 20l

Filter precision: 5µm

Equivalent exchange error: ±100ml

Fluid outlet hose length: 2.5m

Fluid return hose length: 2.5m

Fluid draining hose length: 1.2m

Noise level: <70db

Working temperature: -10 ~ 50°C

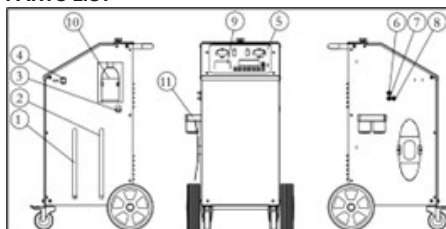
Working relative humidity: <90%

Power supply: 220V 50hz

Dimensions: 590mm×700mm×1037mm

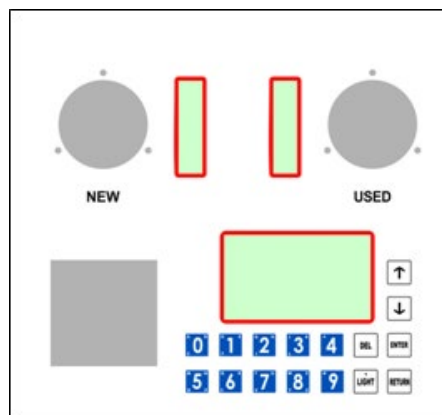
Weight: 70kg

PARTS LIST



1	Used fluid indicator
2	New fluid indicator
3	Power plug hole
4	Power switch
5	Operation screen
6	Fluid draining hose
7	Hose
8	Hose
9	Printer
10	Detergent bottle
11	Filter

Control panel



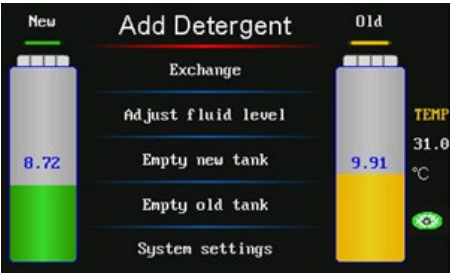
Description

Elemento	Descripción
NEW	Gauges for flow pressure of new and used fluid.
USED	Inspection windows to check new and used fluid colour.
↑	Press it to select function option in main menu.
↓	Press it to select function option in main menu.
ENTER	Confirmation.
RETURN	1. Menu to return. 2. Press one time to stop current operation. Press once more to return to previous interface.
DEL	Press to delete the previous character. In database interface, press it you can delete some menu item.
LIGHT	1. In main menu, you can switch on/off the lights of the liquid inspection glass. 2. When pressing the quantity of liquid, you can press this key to write " ". 3. When pressing information in the database interface, you can use this key to switch between uppercase and lowercase letters.

OPERATION

Note:
While the unit is in operation, it will produce vibrations and noise, which is normal. Do not take it as the malfunction.

Main menu



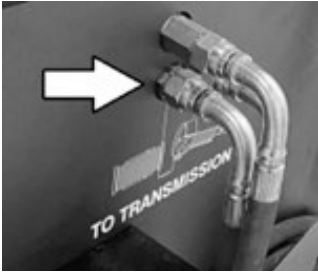
Item	Description
Add detergent	Add detergent to the transmission system
Exchange	Exchange transmission liquid
Adjust fluid level	Adjust the quantity of fluid inside the transmission system
Empty new tank	Drain left fluid inside new fluid tank
Empty used tank	Drain used fluid inside used fluid tank
System setting	Modify system parameters

Preparation

Lift the vehicle to keep the drive wheels off the ground at least 20cm.
Apply the parking brake.

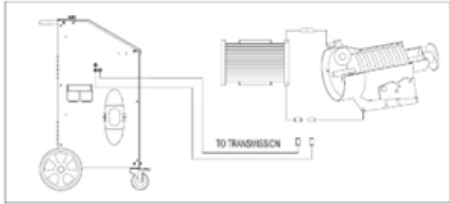
Hose connection

Check vehicle's manufacturer instructions manual to locate the hose where flows the transmission oil from the gearbox to the cooler.
Disconnect the hose.
Locate the matched connector inside the connector box.
Connect the adapters.
Connect the two hoses marked as "TO TRANSMISSION" from the machine to the disconnected two ends of the hoses of the transmission system.



The machine automatically detects the direction of the fluid so you can connect the hose in any place.

The machine should be connected like shown in the image below.



Power cables connection

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

Check-up

Start the engine and ensure that there is no leakage.
Confirm that the power supply of the auto transmission cleaner and fluid exchanger is normal, and then switch on the unit.

Filling liquid

Filling detergent

When you need to clean the system, fill proper amount of detergent into the detergent container.

Adding new oil

When you need to exchange the oil, please fill new fluid into the new fluid tank.

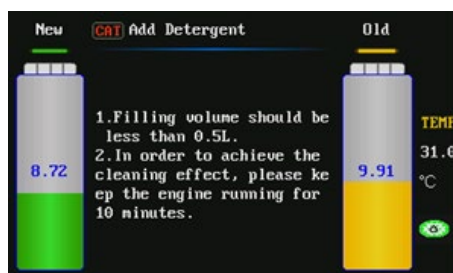
Transmission system cleaning

Filling detergent

Make sure there is enough detergent in the detergent bottle.
Select the function of "Add Detergent" in the main menu



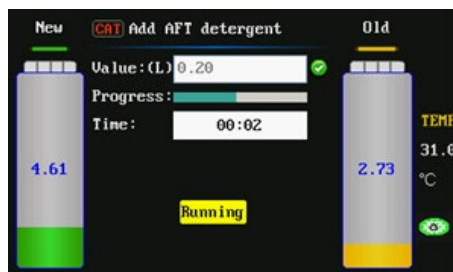
Set the amount of the detergent to be filled (the setting range: 0.00-0.50 L).



Note: Before filling the detergent, you need to calibrate the cleaning speed (see "sensor calibration" content).

The default value of the unit is 0.20L and the maximum value is 0.50L.

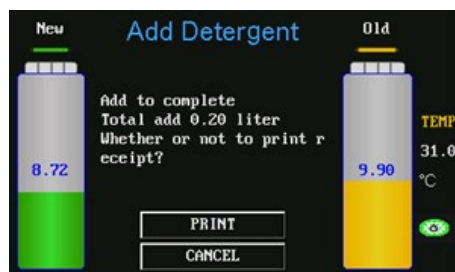
Press ENTER key after the amount to be filled is confirmed.
The detergent will be pumped into the hose.



After the filling operation is finished, the system will automatically pop-up print menu.

Press ENTER key select print.

Press RETURN key to cancel printing.



Then, the screen will show a 10 minutes countdown.
Turn on the engine of the vehicle.



Transmission system cleaning

Once you start the engine, the fluid will circulate from the machine to the vehicle's transmission system.
In order to speed up the circulating process, it is advisable to perform a gear-shift operation.
The running time for each gear-shift should be kept for about 1 minute.

When the vehicle engine is running with high-speed, the speed should be more than 60 km/h to ensure the effect of cleaning.

Finish cleaning

After 10 minutes, please turn off the engine to end the cleaning process

Transmission liquid exchange

When you need to exchange the transmission fluid, please put 0.5L inside the new fluid tank.

Before putting the liquid, make sure that the new fluid tank and the hoses are clean.

Check if the pipelines are well connected.

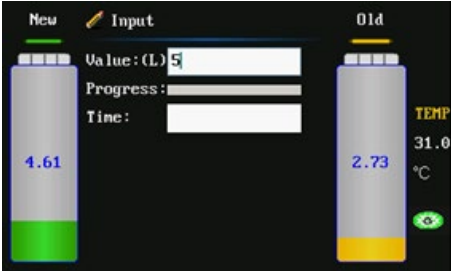
Start the vehicle to warm up the fluid inside the transmission to normal temperature.

As shown in figure below, you can directly input the fluid amount to be changed or consult correct amount depending on the type of vehicle.

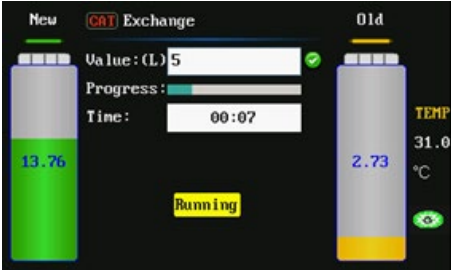


Direct Input

Select "Direct Input" and press ENTER key to show the next interface.
Input the fluid amount to be changed (the default value is 10L).



Press ENTER key to exchange the liquid.
Be sure that there is no leak in the pipelines.
When any leak is found, stop the immediately.



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



Then, the system will return to this screen



Vehicle Selection

If you want to consult the appropriate quantity from the database, select "Vehicle Selection".

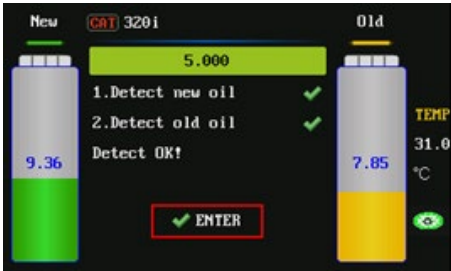
The database will show the information you previously introduced into the system.



The screen will show the vehicle model menu.



Select a specific vehicle model and the testing interface will display the fluid amount to be changed.

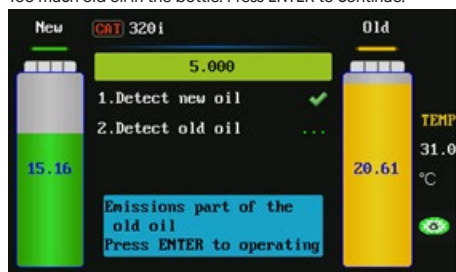


If the test is not successful, the screen will display the operations which need to be performed:

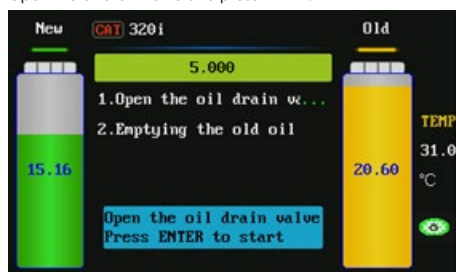
Not enough new oil in the bottle. Please put more oil in the tank.



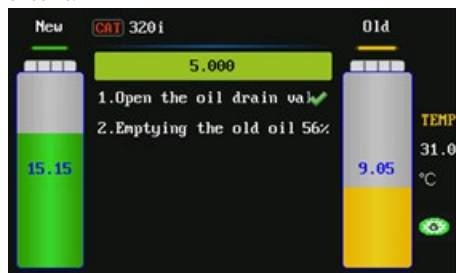
Too much old oil in the bottle. Press ENTER to continue.



Open the oil drain valve and press ENTER.

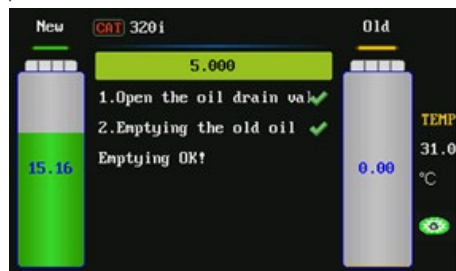


The screen will show how the machine is emptying the old oil bottle.

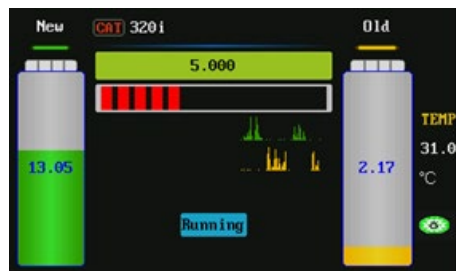


The system starts to drain the used fluid. You can press RETURN key to stop the operation and return to the previous menu.

The interface prompts "Emptying OK!" after the testing is passed.



Press ENTER key to proceed with transmission fluid exchange. The screen will display the progress bar and the waveforms for the change of new/used fluid.



After the exchange is finished, the screen will display:

- Amount of the new fluid changed
- Amount of the used fluid changed
- Error between them

Press RETURN key to return to the previous menu.

Then, please do the following:

1. Check the fluid level inside transmission. If the level is not enough, supplying fluid is required (refer to the section "Adjust fluid level")
2. Disconnect the unit from the vehicle and connect again the hoses of the vehicle's transmission.
3. Start the engine and check if there is oil leakage in the vehicle's pipelines.

Note:

It is recommended to switch each gear when exchanging. The time of each shift should be about half minute.

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 to the tank during the exchange process. If you need to add more fluid, wait until the process is finished.

Adjusting fluid level

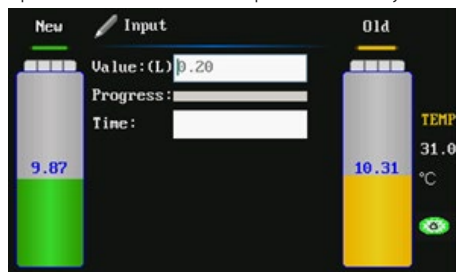
Increase fluid amount

When the fluid in the transmission system is not enough, fill it with more fluid.

In the main menu, select "Adjust fluid level".
Then, select "Filling".



Input the amount to be filled and press the ENTER key.



When the recharging is completed, the system will automatically show the print menu.

Press ENTER key select print.

Press RETURN key to cancel printing.



Decrease fluid amount

If the quantity of liquid is more than it is needed, it is necessary to decrease it.

In the main menu, select "Adjust fluid level".

Then, select "Draining".

Input the amount to be drained and press the ENTER key.

Then, start the engine. The unit will drain the set quantity of liquid to the used fluid tank.

After the draining is completed, the display will show the main menu.

Once the main menu is displayed you can turn off the engine.

Empty new fluid tank

Be sure that the two hoses marked with "TO TRANSMISSION" are not connected to the vehicle.



Open the handle valve on the fluid hose marked with "EMPTY".



Place the hose into a container.

The system will show the empty new tank interface and automatically start fluid draining operation.



The unit will drain fluid until the hose marked with "Empty" has no fluid.

You can press the RETURN key to stop the draining operation.

Empty used fluid tank

Make sure that the two hoses marked with "TO TRANSMISSION" are not connected to the vehicle.



Open the handle valve on the fluid hose marked with "EMPTY".

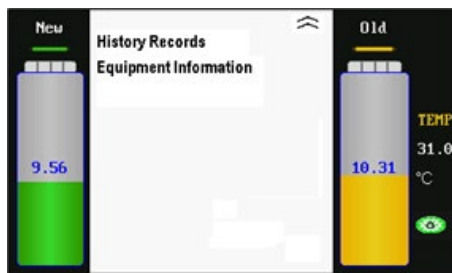


Place the hose into a container.
The system will show the empty new tank interface and automatically start fluid draining operation.
The unit will drain fluid until the hose marked with "EMPTY" has no fluid.
You can press the RETURN key to stop the draining operation.

System setting

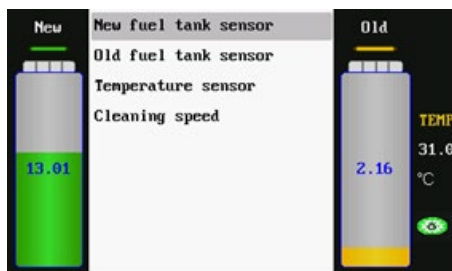
Select system setting item in main menu and press ENTER.
In the next menu, select the item you need to configure.

- Sensor calibration
- Transmission fluid selection
- Window backlight
- LCD brightness
- Date and time
- Language selection
- Vehicle adding
- Print setting
- History records
- Equipment information



Sensor calibration

Select the sensor calibration you want to calibrate.



New fuel tank sensor

Select "New fuel tank sensor" and press ENTER.

To perform this calibration, you will need an object with a known weight.

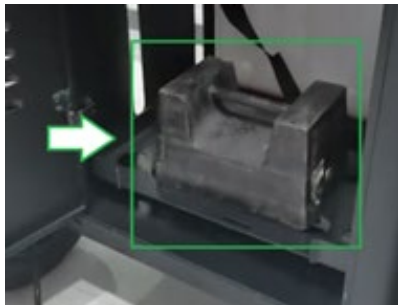
Input the weight of the object you will use as a reference and press ENTER.



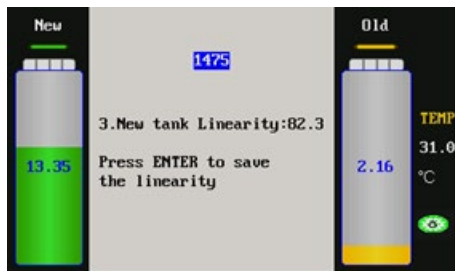
Open the door of the machine and take out the new oil tank.
Once you have taken out the tank, press ENTER.



Put a weight in place the tank was.



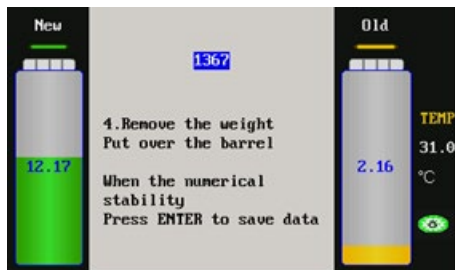
Press ENTER.



Press ENTER.
Remove the weight and put the tank again.



Press ENTER.



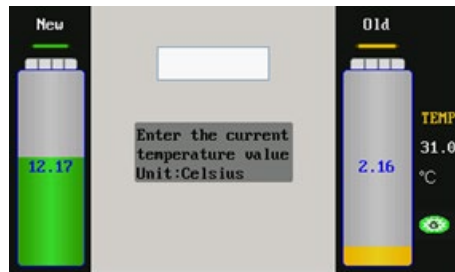
The display will show the sensor calibration menu.

New fuel tank sensor

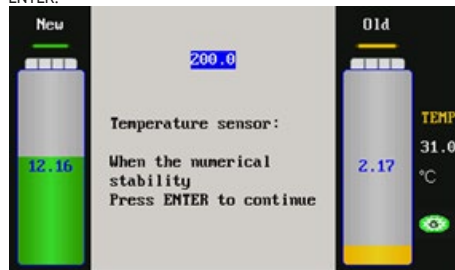
To calibrate the used fluid tank sensor, do the same procedure as in "New fuel tank sensor".

Temperature sensor

Select "Temperature Sensor" and press ENTER.
Press the current temperature and press ENTER

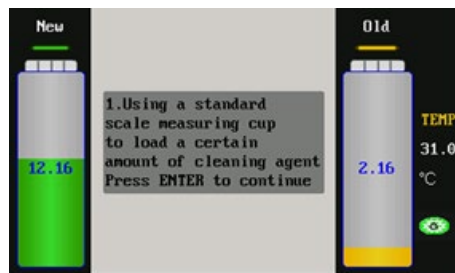


Wait until temperature drift appears.
When temperature drift is displayed on the screen, press ENTER.

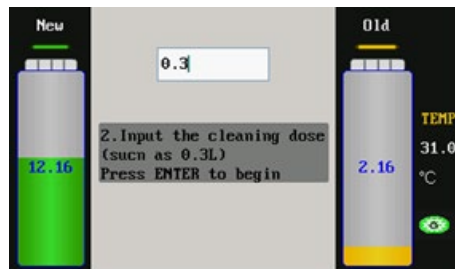


Cleaning speed sensor

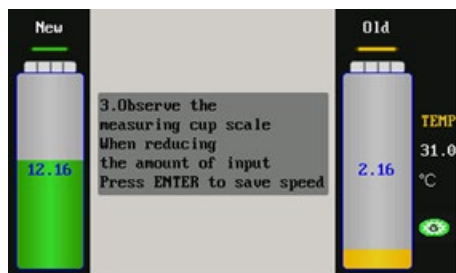
Select "Cleaning Speed" and press ENTER.
You need to put a certain amount of detergent in a detergent bottle (for example 0.3L).
Press ENTER to continue.



Input the amount of detergent that it is inside the detergent bottle and press ENTER.

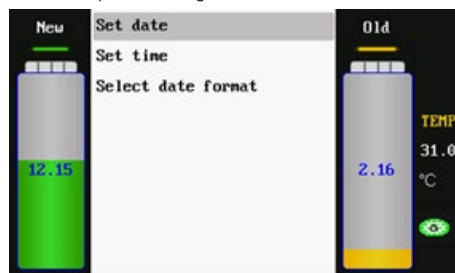


Observe how the machine sucks out the detergent and press ENTER as soon as there is no detergent inside the bottle.



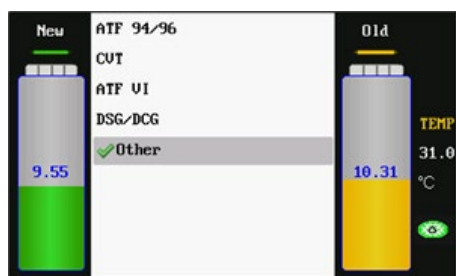
Date and time

Select this option to configure the date and the time.



Select transmission fluid

In this screen you can choose the type of transmission fluid. If you are not sure which one is, you can choose "Other".



Setting the date

Write the date (4 numbers for year, 2 numbers for month and 2 numbers for day) and press ENTER to confirm. The interface prompts "OK".



Window light switch setting

You can choose to turn on or turn off the backlight of the inspection glass.



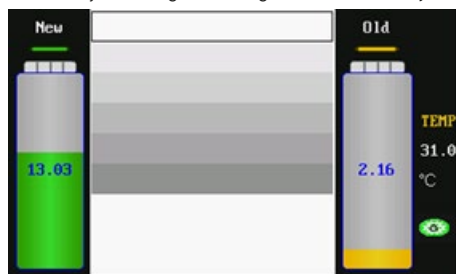
Setting the time

Write the time (2 numbers for hour and 2 numbers for the minutes) and then press ENTER to confirm. The interface prompts "OK".



LCD Screen Brightness Adjustment

You can adjust the brightness using the [UP]/[DOWN] keys.



Press RETURN to confirm.

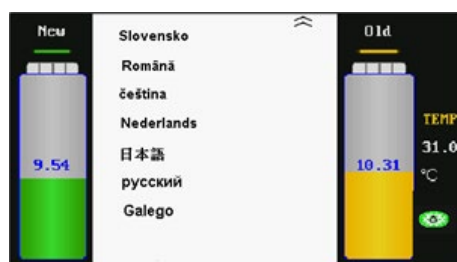
Date format setting

Select the desired date format and press ENTER to confirm.



Language setting

Press the [UP]/[DOWN] key to select the desired language and then press ENTER to confirm.



Vehicle Adding

You can use this function to add a vehicle.



Select the [MENU] option and then press ENTER.
Press the LIGHT key to switch between uppercase and lowercase letters.



Write a brand (such as BMW).



Press ENTER key to press the menu of BMW.



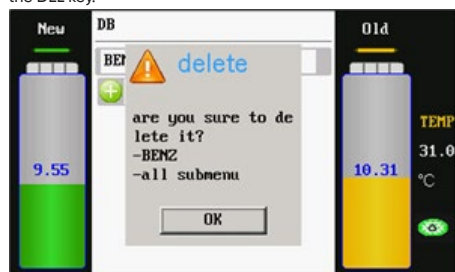
Selección [BOTTOM NODE] y presione ENTER.



Enter the fluid amount (such as 12,000, unit: L) to be changed and press ENTER.

Press RETURN key to return.

Note: If you want to delete any vehicle, select it and press the DEL key.



Press ENTER key to delete.

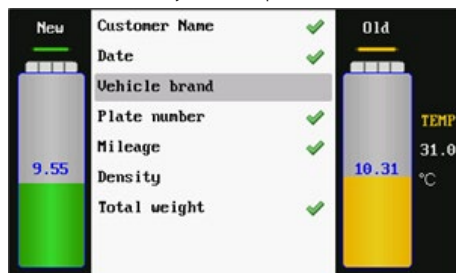
Press RETURN to return to the previous menu.

Print Setting

Select the Print Setting option.



Select the information you want to print.



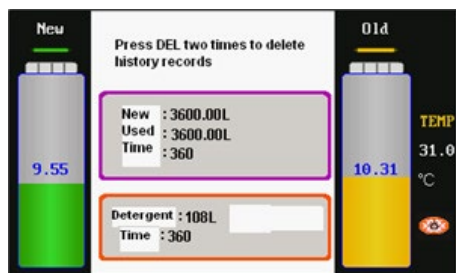
History records

The history records show information regarding to the use of the machine until a certain moment.

It shows the below information:

- Quantity of new/used oil exchanged
- Duration of the exchange process
- Quantity of detergent used
- Duration of the cleaning process

When the amount of fluid exchange is more than 3600L, the system will prompt that the fluid filters are abnormal (the filter status icon on the interface will turn orange from green). When this occurs, it is suggested that you replace the filters. After you change the filters, it is required to delete the original history records. Otherwise, the filter status icon on the interface will not be correct.



After replacing the fluid filters, press key DEL two times on the history records to delete the records saved. At this point, the filter icon will turn green.



Note: Do not delete the records until the fluid filters are exchanged.

Device information

The screen will show the below information:

- Hardware version
- Software version
- LCD version
- Boot time
- Serial number



MAINTENANCE

In order to ensure that the electronic scale works accurately, make sure to empty the new and old oil tank after using the machine.

If you replace the main-board and/or the electronic scale please remember that after replacing them you will need to calibrate the new fuel tank and the old fuel tank sensors.

CLEANING

Before cleaning up the unit, the fluid inside the used and new fluid tank should be drained out.











DISPOSAL











Make sure to dispose this product in an authorized recycling centre.














CONTENTS

- Automatic transmission oil exchange machine
- Set of adaptors

List of adapters

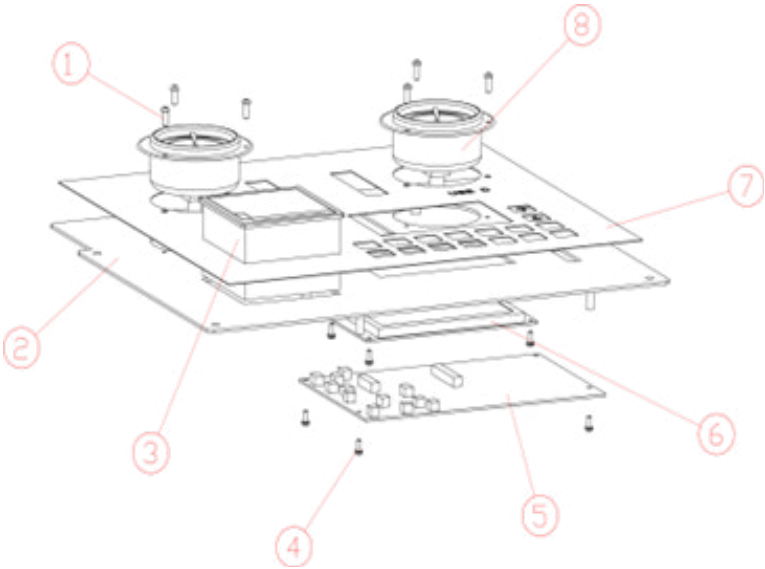
Number	Picture	Size	Applications
A01		Φ 5, 8, 10	TOYOTA MITSUBISHI SPACE WAGON GLXI LEXUS ES300 HONDA, NISSAN
Hose Φ8		Φ8	Universal
Hose Φ10		Φ10	
Hose Φ12		Φ12	
A03A		M16×1.5 (exterior)	CADILLAC BMW 750 (AT 4HP-22, 4HP-24, A421) MITSUBISHI 3000 V6
A03B		M16×1.5 (interior)	
A05A		M18×1.5 (exterior)	OPEL VECTRA VOLKSWAGEN PASSAT
A05B		M18×1.5 (interior)	
A06A		G1/4 (exterior)	CHRYSLER 13.157mm GRAND VOYAGER CHRYSLER 300
A06B		G1/4 (interior)	
A07A		M18×1.5 (exterior)	OPEL VECTRA
A07B		M18×1.5 (interior)	

A08A		UNF1/2-20 (exterior)	GENERAL MOTORS LINCOLN CADILLAC
A08B		UNF1/2-20 (interior)	
A10A		UNF1/2-20 (exterior)	VOLVO FORD CHRYSLER MERCEDES-BENZ
A10B		UNF1/2-20 (interior)	
A11A		Z1/4 *18 13.616	FORD LINCOLN VOLVO
A11B		Z1/4	
A12A		UNF5/8-18 (exterior)	FORD CADILLAC
A12B		UNF5/8-18 (interior)	
A13A		UNF5/8-18 (exterior)	CHRYSLER GENERAL MOTORS
A13B		UNF5/8-18 (interior)	

A14A		UNF5/8-18 (exterior)	FORD VOLVO
A14B		UNF5/8-18 (interior)	
A15A		UNF5/8-18 (exterior)	CHRYSLER MERCEDES BENZ c200, s325i GENERAL MOTORS
A15B		UNF5/8-18 (interior)	
A16A		M18x1.5 (exterior)	European vehicles
A16B		M18x1.5 (interior)	
A17A		Φ14.85 (exterior)	European vehicles
A17B		Φ14.95 (interior)	
A20A		UNF1/2-20 (exterior)	FORD
A20B		UNF1/2-20 (interior)	
A43A		M12 x 1.5 (x2)	European vehicles
A43B		(x2)	
A44		M12	Special adaptor

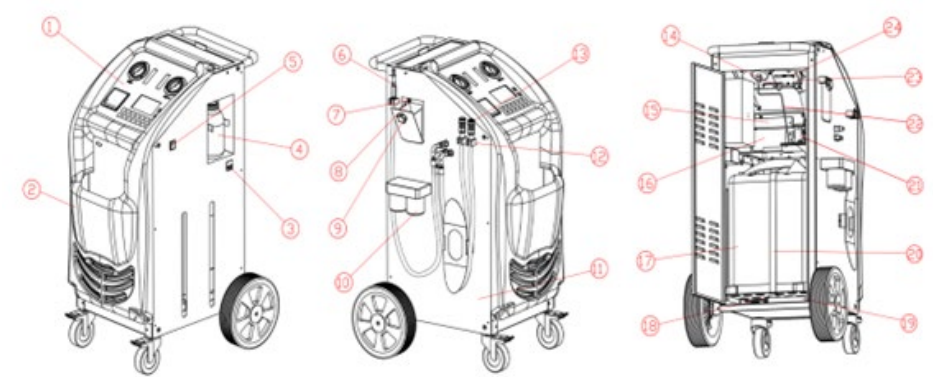
PARTS LIST (EXPLODED VIEW)

1.1. Panel component



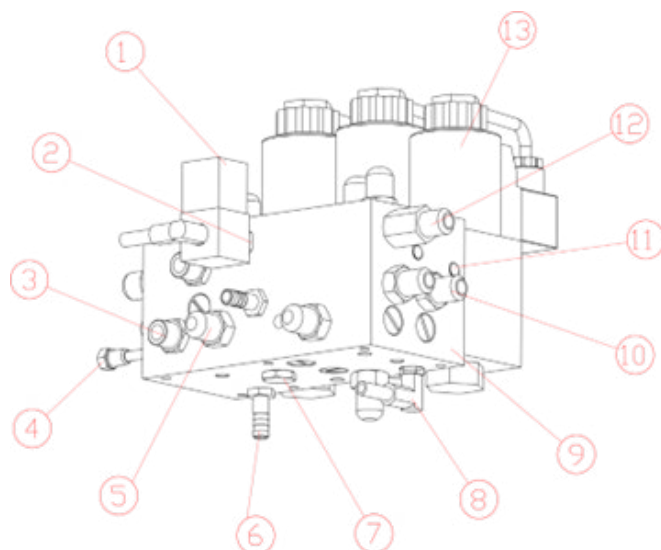
No.	Name	Quantity
1	Cross recessed pan head screws with washer	6
2	Cabinet panels	1
3	Thermal printer	1
4	Cross recessed small pan head screw assembly (with flat washer)	8
5	Main board	1
6	5-inch screen	1
7	The key mask	1
8	Oil filled oil pressure gauge	1

1.2. Machine parts drawing



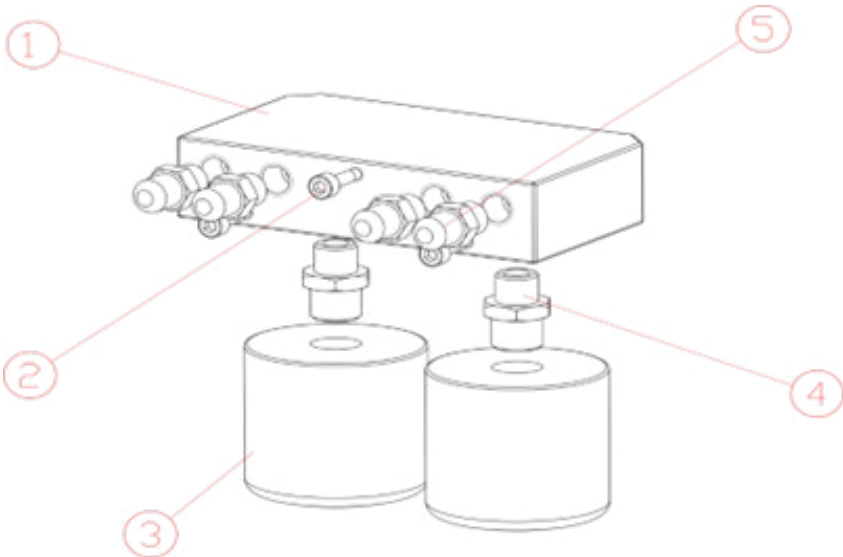
No.	Name	Quantity
1	Panel component	1
2	Blister shell	1
3	Power socket with safety card	1
4	Detergent bottles	1
5	The ship type switch	1
6	Drain tubing assembly with valve	1
7	Cross recessed countersunk head screws	2
8	Magnetic suction piece	2
9	Handle screws	1
10	Filter component	1
11	Metal cabinet	1
12	Pipe clamp	3
13	Pumping and draining tubing assembly (quick coupling)	2
14	Oil window	1
15	Switching power supply	1
16	The oil pump	1
17	Oil drum	2
18	Backing plate of electronic scale	4
19	Weighing cell	2
20	Oil drum retaining belt	2
21	Pipeline integration module components	1
22	Capillary connector	2
23	Oil window cover	1
24	LED board PCA	1

1.3 Integrated module component



NO.	Name	Quantity
1	Solenoid valve, 2V025-08-DC12V	1
2	Double nipple, external thread	1
3	Oil block adapter	2
4	Temperature sensor	1
5	Flared male connector	10
6	Pagoda joint (straight through outer grain)	1
7	Pipe module plug	1
8	Pagoda joint (bend outside grain)	1
9	Piping modules	1
10	Oil delivery male connector	2
11	Hexagon socket flat end oil seal screws	9
12	Male thread joint with additional length	1
13	Solenoid valve, DSG-02-2B2-DL	3

1.4 Filter component



No.	Name	Quantity
1	Oil filter base	1
2	Cross recessed pan head screw assembly	3
3	Oil filter	2
4	Pipeline module filter connector	2
5	Flared male connector	4