



USER MANUAL

FOR AUTOMATIC A/C CHARGING STATION

GEMINI



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1 INTRODUCTION

1.1 Safety instructions

This manual has been prepared to assist you during the use of A/C charging station and in order to protect your safety.



Read carefully the safety regulations listed in this manual. No responsibility is accepted in case of wrong use of the device, and in that case any warranty will be nullified.

Our A/C charging stations are destined to qualified personnel, trained to follow all safety regulations, as well as the technical instructions listed below:

- use all stations in respect of national laws and regulations;
- use protecting gloves and glasses;
- do not inhale gas;
- avoid contact with skin and/or eyes;
- do not smoke nor use free flames during station use;
- use in airy and dry environments only, not in humid ones;
- use original spare parts only;
- do not fill the gas tank more than 80% of its capacity;
- turn off the station while connecting to the car A/C system;
- use refrigerant fluid R134a and R1234yf only;
- disconnect the station from power network during maintenance operations, which must be executed exclusively by qualified and trained personnel;
- never position the station horizontally, to avoid oil leaks from vacuum pump.

2 EQUIPMENT

- 2 high pressure tubes **RED**
- 2 low pressure tubes **BLUE**
- 2 power cables 230V
- Quick coupling R134a high pressure **RED**
- Quick coupling R134a low pressure **BLUE**
- Quick coupling R1234yf high pressure **RED**
- Quick coupling R1234yf low pressure **BLUE**

The **RED** and **BLUE** quick couplings with safety closure have to be opened by rotating as depicted in Figure 1:

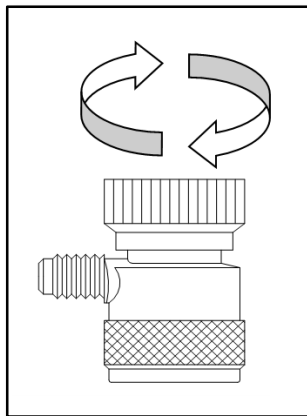


Figure 1

3 USE

3.1 Device elements

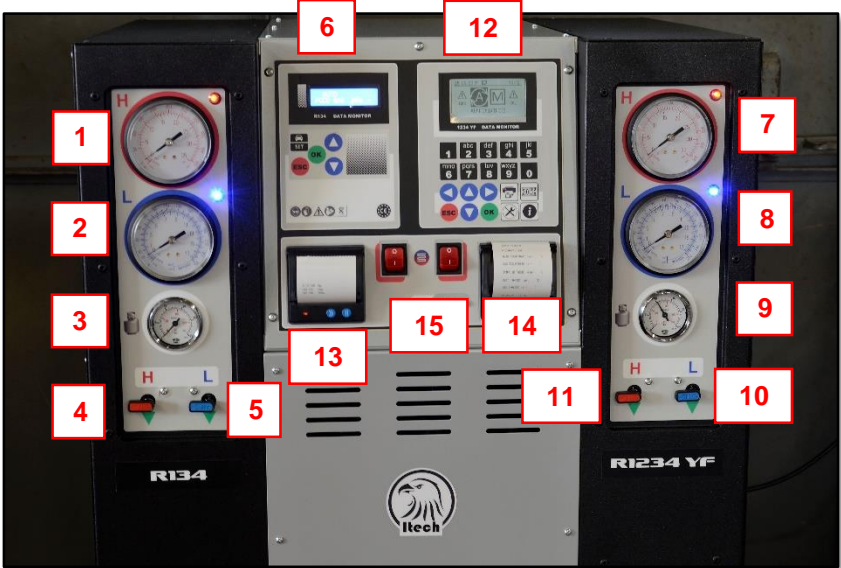


Figure 2 (elements position may vary a little)

The station includes the following elements (Figure 2):

1 - H.P. gauge R134a:	for A/C system check and diagnosis
2 - L.P. gauge R134a:	for A/C system and vacuum check and diagnosis
3 - Tank pressure gauge R134a:	for gas tank pressure check
4 - H.P. valve R134a	opens/closes high pressure (red)
5 - L.P. valve R134a	opens/closes low pressure (blue)
6 - Control panel for R134a:	permits to operate the station (R134a part)
7 - H.P. gauge R1234yf:	for A/C system check and diagnosis
8 - L.P. gauge R1234yf:	for A/C system and vacuum check and diagnosis
9 - Tank pressure gauge R1234yf:	for gas tank pressure check
10 - H.P. valve R1234yf:	opens/closes high pressure (red)
11 - L.P. valve R1234yf:	opens/closes low pressure (blue)
12 - Control panel R1234yf:	permits to operate the station (R134a part)
13 - Printer R134a	prints the report of charging cycles
14 - Printer R1234yf	prints the report of charging cycles
15 - Warming belts switches	turn on/off the warming belt (separately)

The high pressure and low pressure couplings, main switches and electric sockets (everything separated) are on the station's rear side. New/exhausted oil bottles are on the station's front side (in the low part); they are also completely separated for each refrigerant fluid. The two station portions, the one for R134a fluid and the one for R1234yf fluid, are completely independent from each other, also in terms of power supply and on/off switching; the only common part is the chassis.

The control panel includes the following elements (Figure 3):

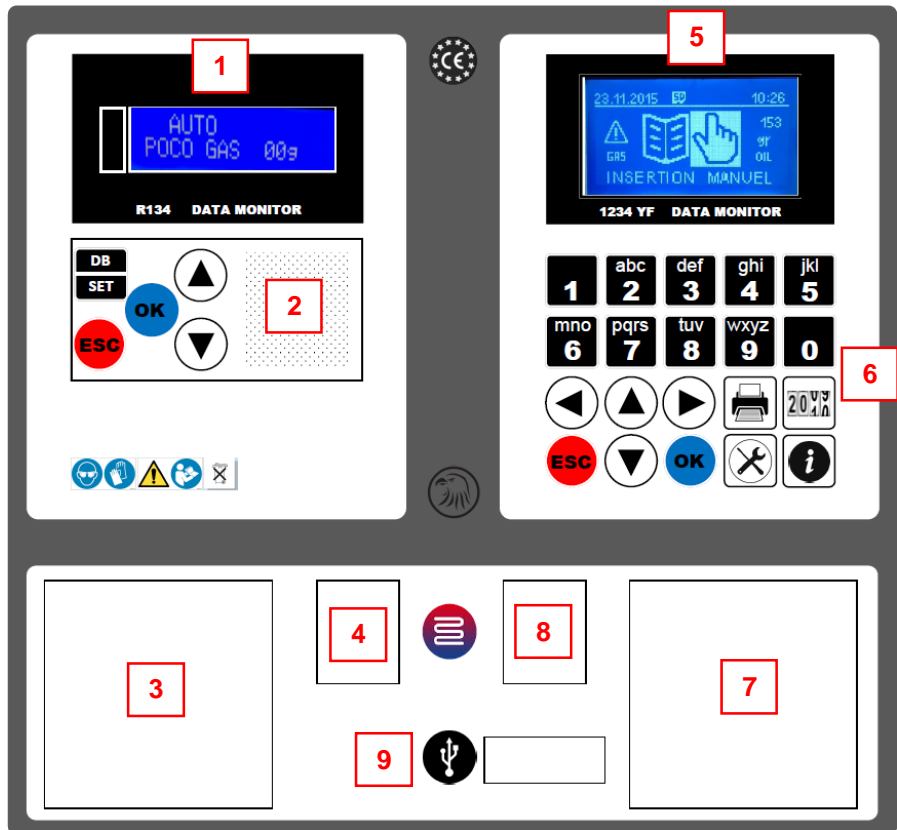


Figure 3

1 - Display for R134a part	
2 - Keyboard for R134a part	
3 - Printer for R134a part	
4 - Warming belt switch for R134a part	
5 - Display for R1234yf part	
6 - Keyboard for R1234yf part	
7 - Printer for R1234yf part	
8 - Warming belt switch for R1234yf part	
9 - USB port for R1234yf part	

R134a-part keyboard includes the following keys:

- UP/DOWN arrows: to operate selections
- DB-SET: to activate vehicles database and to enter settings/maintenance mode
- OK: to confirm selections and operations
- ESC: to cancel selections and operations

In the main screen, the R134a-part display shows the active mode (AUTO/MAN/FILTERS/TANK) and the R134a gas tank filling status (if too low, the caption “GAS LOW” appears).

R1234yf-part keyboard includes the following keys:

- UP/DOWN/LEFT/RIGHT arrows: to operate selections
- Alphanumerical keys: to directly enter the required data (gas quantity, vacuum time, vehicle license plate, etc.)
- OK: to confirm selections and operations
- ESC: to cancel selections and operations
- LAST PRINT key: to print the report of the last charging cycle
- MAINTENANCE key: to access settings and maintenance mode
- CYCLES NUMBER key: to print total cycles number
- INFORMATION key: shows the software version

R1234yf-part display, in the main screen, shows the following information:

- the active mode (AUTOMATIC/MANUAL/DB DATA/
/MANUAL SETTINGS)
- the available R1234yf gas in gas tank (if too low, a warning symbol appears)
- the available oil in new oil bottle (if too low, a warning symbol appears)
- the SD memory card presence
- current date and time.

3.2 Preparation for first use



WARNING: Before using the station for the first time, remember to unscrew the safety lock under the station itself. This device has the purpose to lock the weight scale during transport operations, and must be repositioned in case of transport, but has to be removed during normal use, or the station will not function properly.

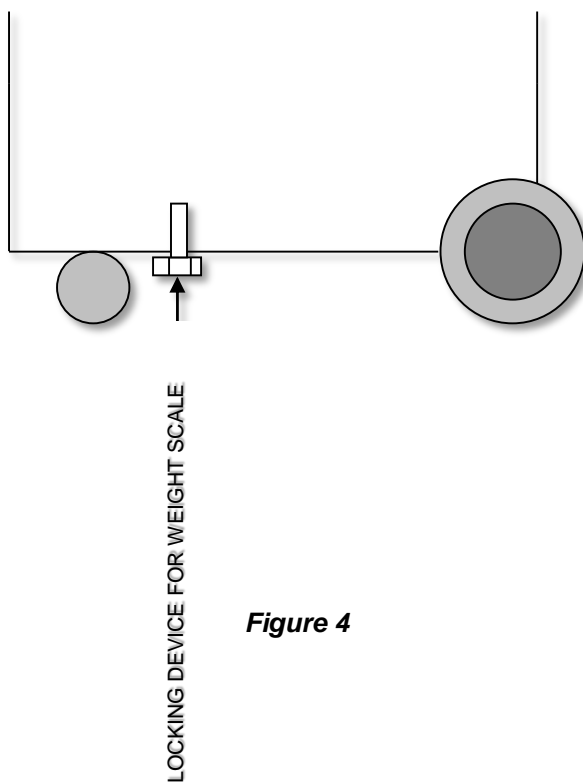


Figure 4

PREPARATION PROCEDURE

1. Ensure all valves are closed.
2. Make sure the car's A/C system is of the proper kind (R134a or R1234yf).
3. Clean the car's connectors.
4. Connect tubes to the car's A/C system in this way:
 RED → high pressure, **BLUE** → low pressure
1. Connect power cable to power network (220-240 V) and **turn on the proper station part (R134a or R1234yf)**. The refrigerant fluid quantity contained in gas tank will appear on display (for example: 3550 grams), otherwise the display will indicate "LOW GAS" (⚠ for R1234yf part) if gas quantity is insufficient.
2. If the gas is not enough, refill the gas tank within 80% of its capacity, in this way:

For R134a part

- Press **DOWN** twice, commuting display to TANK mode.
- Confirm by pressing **OK**.
- Connect the external gas tank to the station using the high pressure coupling (**RED**), orienting the tank as in Figure 5 according to float presence or absence.

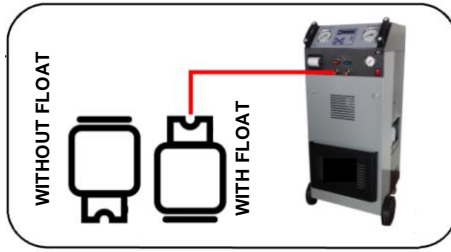


Figure 5

- The display shows the gas quantity to be charged (default value: 2000 g). Adjust the desired quantity by pressing **UP/DOWN**, keeping in mind that about further 500 grams of gas will be automatically added due to fluid recovery from station internal circuit.
 - Confirm the value by pressing **OK**. The station will start gas RECOVER from external tank, automatically stopping once reached the set quantity, and will ask to close the external tank valve (do it).
 - A de-icing pause is executed for about 3 minutes.
 - The station returns to AUTO mode. Gas tank refilling operation is done.

For R1234yf part

- Switch to MAINTENANCE mode by pressing the proper button on the control panel.
- Select ADVANCED MENU and confirm by pressing **OK**.
- Input password 2454 by pressing **alphanumerical keys** and confirm by pressing **OK**.

- Select **GAS TANK FILLING** and press **OK**.
- Connect the external gas tank to the station using the high pressure coupling (**RED**), orienting the tank as in Figure 6 according to float presence or absence.

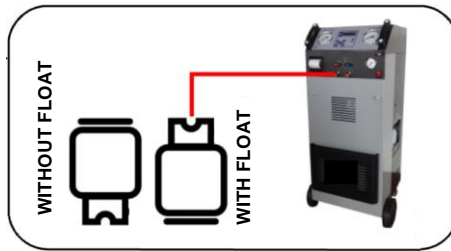


Figure 6

- The display shows the gas quantity to be charged (default value: 2000 g). Adjust the desired quantity by pressing **UP/DOWN**, keeping in mind that about further 500 grams of gas will be automatically added due to fluid recovery from station internal circuit.
- Confirm the value by pressing **OK**. The station will start gas **RECOVER** from external tank, automatically stopping once reached the set quantity, and will ask to close the external tank valve (do it).
- A de-icing pause is executed for about 3 minutes. At this point, refilling operation is over.

5. Fill the new oil container (→ see paragraph 4.1).
6. Open the quick couplings (see Figure 1).
7. Open the station **RED** and **BLUE** valves.
8. Preparation procedure is done.

3.3 Automatic use

R134a PART

The station works both in completely automatic mode (it does the operations consecutively with minimum user intervention) and in manual mode (user can execute the operations individually).

In automatic mode, in order to execute a charging cycle, once the preparation procedure is terminated (→ paragraph 3.2), proceed in this way:

1. The station shows AUTO mode and the quantity of available refrigerant fluid. Press **OK** to begin automatic cycle.
2. The station shows the vacuum time (default: 30 minutes), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN** arrows and then **OK**. *Note: we recommend to perform the default vacuum time.*
3. Subsequently, the station shows the new oil quantity (default: 20 grams), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN** arrows and then **OK**. *For new oil quantities, refer to table in paragraph 3.7.*
4. At this point, the station requests the quantity of refrigerant gas to be introduced into the car's A/C circuit (default: 300 grams). The amount can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN** arrows and then **OK**; alternatively, it is possible to access the internal DATABASE by pressing


DB/SET, choose the car manufacturer (**UP/DOWN + OK**) and the car model (**UP/DOWN + OK**).

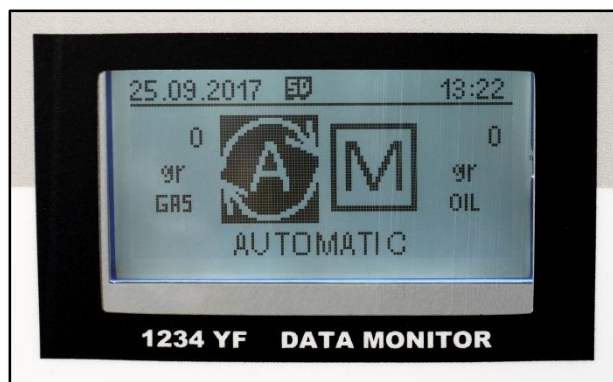
5. The display shows >START<. Confirming by pressing **OK**, the cycle begins automatically, executing in sequence:
 - RECOVER (with de-icing pause)
 - DISCHARGE OF EXHAUSTED OIL (it happens automatically)
 - VACUUM (with leaking test “diagnosis”)
 - CHARGE OF NEW OIL (1...20)
 - CHARGE OF GAS (with sound alarm at end)
 - PRINT (choose YES or NOT if the station has a printer)
6. Charge operation is over. At this point, it is appropriate to execute manually the pressures test, following the instructions at paragraph 3.6. This operation cannot be executed automatically.
7. Once the pressures test is finished, turn off the station and remove the quick couplings from the car.

R1234yf PART

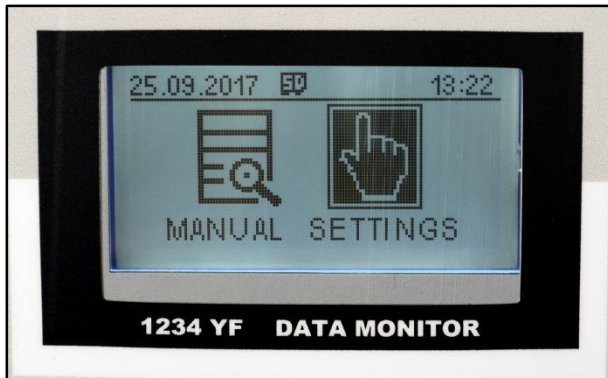
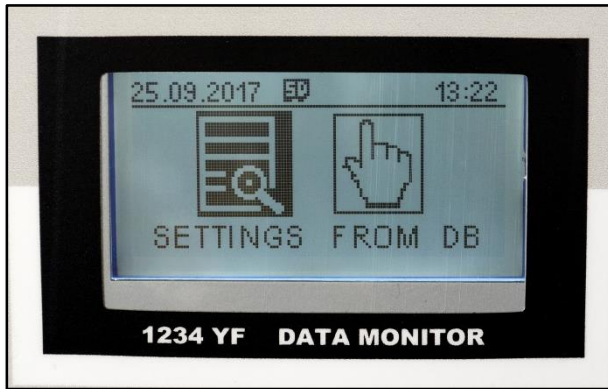
The station works both in completely automatic mode (it does the operations consecutively with minimum user intervention) and in manual mode (user can execute the operations individually).

In automatic mode, in order to execute a charging cycle, once the preparation procedure is terminated (→ paragraph 3.2), proceed in this way:

8. The station shows AUTOMATIC mode with available refrigerant quantity (on the left) and oil quantity (on the right). Refill gas and/or oil if symbol  appears and/or quantities are insufficient. Press **OK** to begin automatic cycle.



9. In the next screen, choose to use database information or to manually set parameters (Note: the station remains in automatic mode in both cases).



10. By choosing **SETTINGS FROM DB** and confirming by pressing **OK** it is possible to access database mode:

- The car database opens. Select the vehicle brand by pressing **UP/DOWN arrows** and confirm by pressing **OK**.
- Select the car model by pressing **UP/DOWN arrows** and confirm by pressing **OK**. The gas quantity is shown as stored in database (it cannot be modified).
- The station requires to input the vehicle license plate. Use **alphanumerical keys** to input the license plate and confirm by pressing **OK**.
- The station requires to input the vehicle total mileage (ODO). Use **alphanumerical keys** to input the value and confirm by pressing **OK**.

11. By choosing, instead, **MANUAL SETTINGS** and confirming by pressing **OK** it is possible to access manual mode, which allows to directly set parameters (note: remaining anyway in automatic mode):

- The station requires to input the vehicle license plate. Use **alphanumerical keys** to input the license plate and confirm by pressing **OK**.
- The station requires to input the vehicle total mileage (ODO). Use **alphanumerical keys** to input the value and confirm by pressing **OK**.

- The station requests the quantity of refrigerant gas to be introduced into the car's A/C circuit (default: 300 grams). The amount can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**
- The station shows the vacuum time (default: 30 minutes), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**. *Note: we recommend to perform the default vacuum time.*
- The station then asks to use oil standard mode or oil hybrid mode for hybrid vehicles (OIL STANDARD – HYBRID). Choose the proper mode by pressing **LEFT/RIGHT arrows** and confirm by pressing **OK**.
- Subsequently, the station shows the new oil quantity (default: 30 grams), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**. *For new oil quantities, refer to values given by vehicle's manufacturer (see paragraph 4.1).*

12. The display shows START. Confirming by pressing **OK**, the cycle begins automatically, executing in sequence:

- GAS RECOVEREY (with de-icing pause)
- OIL DISCHARGING (automatic phase)
- VACUUM PHASE (with leaking test “diagnosis”)
- OIL INJECTION (new oil)
- GAS CHARGE (with sound alarm at end)
- PRINT BILL (charging cycle report)

13. Charge operation is over. At this point, it is appropriate to execute manually the pressures test, following the instructions at paragraph 3.7. This operation cannot be executed automatically.

14. Once the pressures test is finished, turn off the station and remove the quick couplings from the car.

3.4 Manual use

R134a PART

Automatic-mode operations can be executed individually in manual mode, except for the use of internal car database. To access manual mode, once the station has been turned on, press **DOWN** to commute from AUTO to MAN. The available refrigerant gas quantity remains still shown on the display.

By pressing **OK**, it is possible to access the first phase of charging cycle (RECOVER), which can be run by pressing **OK** again, or bypassed by pressing **DOWN** and switching to the next phase. Individually-executable phases are the same of automatic mode, namely:

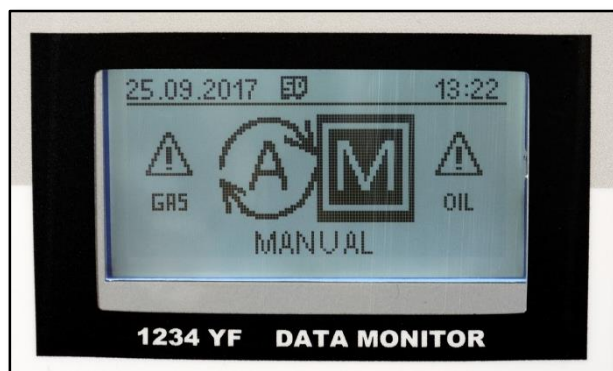
- RECOVER (with de-icing pause)
- VACUUM (with leaking test “diagnosis”)
- CHARGE OF NEW OIL
- CHARGE OF GAS (with sound alarm at end)

For VACUUM, CHARGE OF NEW OIL and CHARGE OF GAS phases, before their beginning it is possible to adjust times and quantities by pressing **UP**, **DOWN** and **OK**, in the same way as in automatic mode (→ paragraph 3.3 points 2-3-4).

At the end of each phase, however, the station does NOT switch automatically to the following step, but requires user intervention.

R1234yf PART

Automatic-mode operations can be executed individually in manual mode, except for the use of internal car database. To access manual mode, once the station has been turned on, press **RIGHT arrow** to commute from AUTO to MAN. The available refrigerant gas quantity and new oil quantity remain still shown on the display.



Once executed the preliminary operations described in previous paragraphs (including gas and oil refilling if necessary), proceed as follows:

1. Press **OK** to begin manual cycle. First, the station requires to input the vehicle license plate. Use **alphanumeric keys** to input the license plate and confirm by pressing **OK**.
2. The station requires to input the vehicle total mileage (ODO). Use **alphanumeric keys** to input the value and confirm by pressing **OK**.

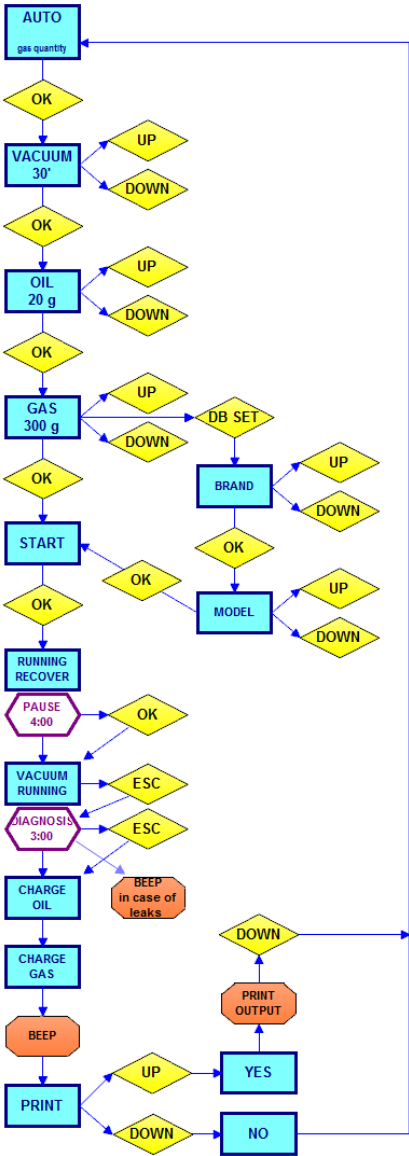
3. At this point, the station requests the quantity of refrigerant gas to be introduced into the car's A/C circuit. The amount can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**.
4. The station shows the vacuum time (default: 30 minutes), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**. *Note: we recommend to perform the default vacuum time.*
5. The station then asks to use oil standard mode or oil hybrid mode for hybrid vehicles (OIL STANDARD – HYBRID). Choose the proper mode by pressing **LEFT/RIGHT arrows** and confirm by pressing **OK**.
6. Subsequently, the station shows the new oil quantity (default: 30 grams), which can be accepted by pressing **OK** or adjusted by pressing **UP/DOWN arrows** and then **OK**. *For new oil quantities, refer to values given by vehicle's manufacturer (see paragraph 4.1).*

7. At this point, it is possible to select the various cycle phases, which can be chosen by pressing **UP/DOWN arrows** and executed by pressing **OK**. Individually-executable phases are:

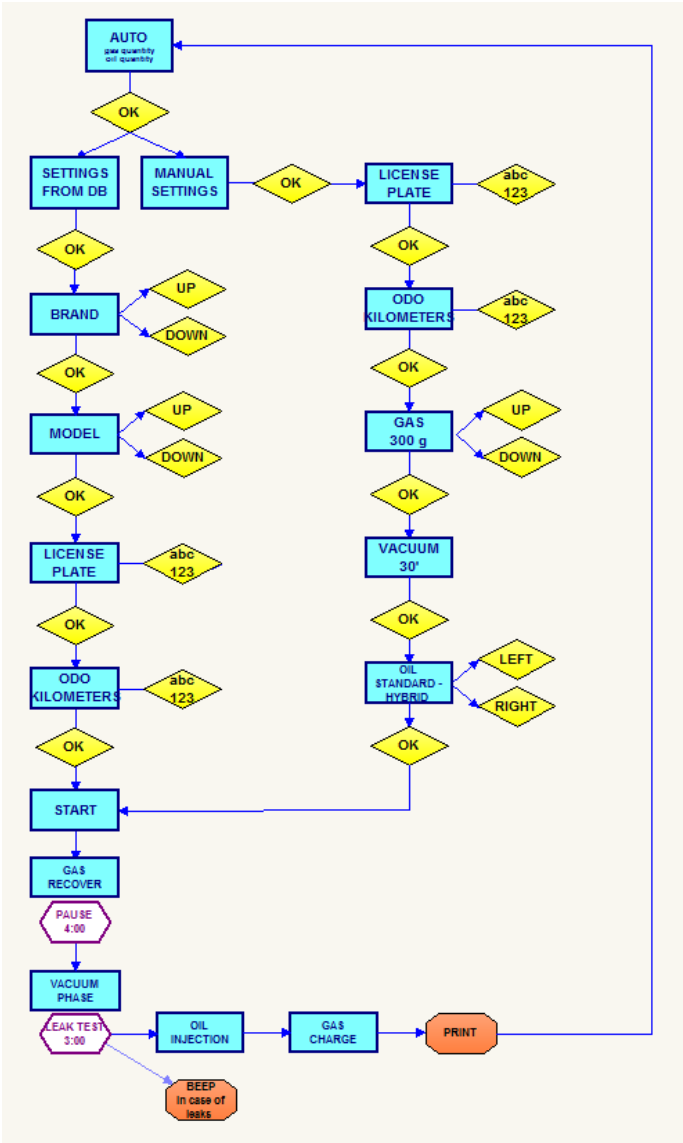
- WASHING STATION
- GAS RECOVERY (with de-icing pause)
- OIL DISCHARGING
- VACUUM PHASE (with leaking test “diagnosis”)
- OIL INJECTION (new oil)
- GAS CHARGE (with sound alarm at end)
- PRINT BILL (charging cycle report)

At the end of each phase, however, the station does NOT switch automatically to the following step, but requires user intervention.

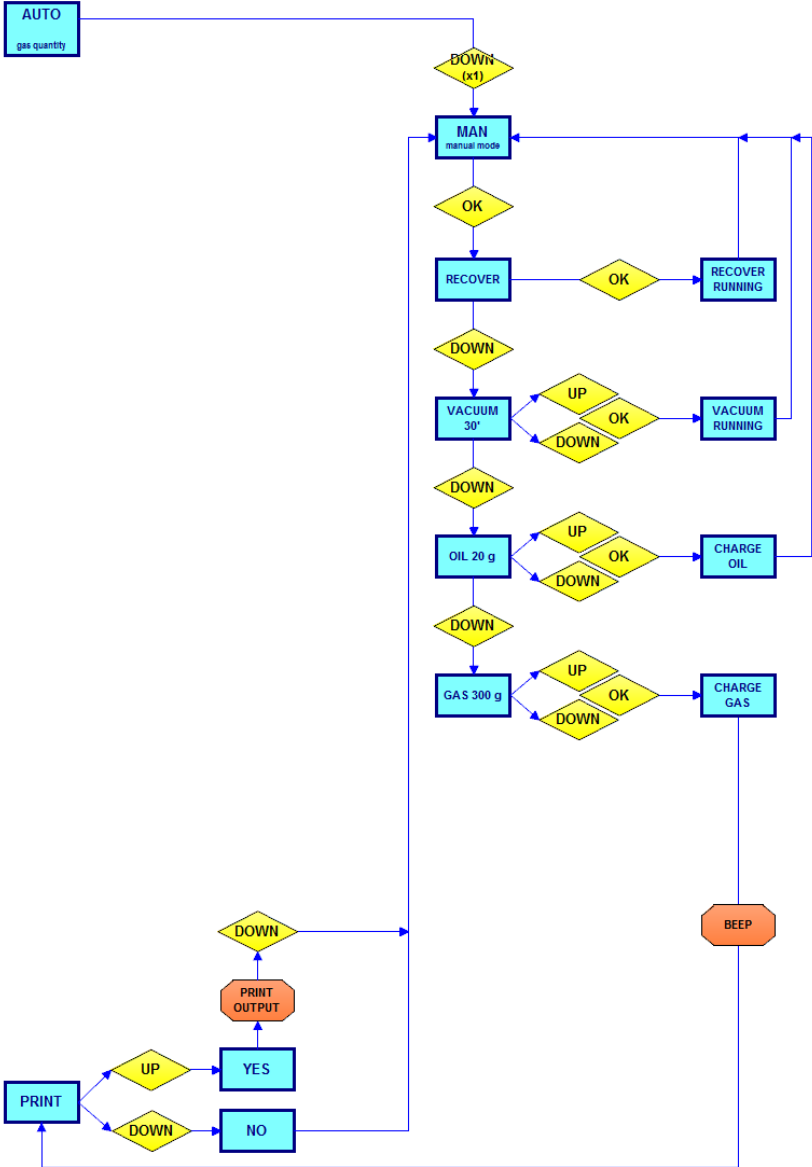
3.5 Synoptic diagram: automatic mode R134a



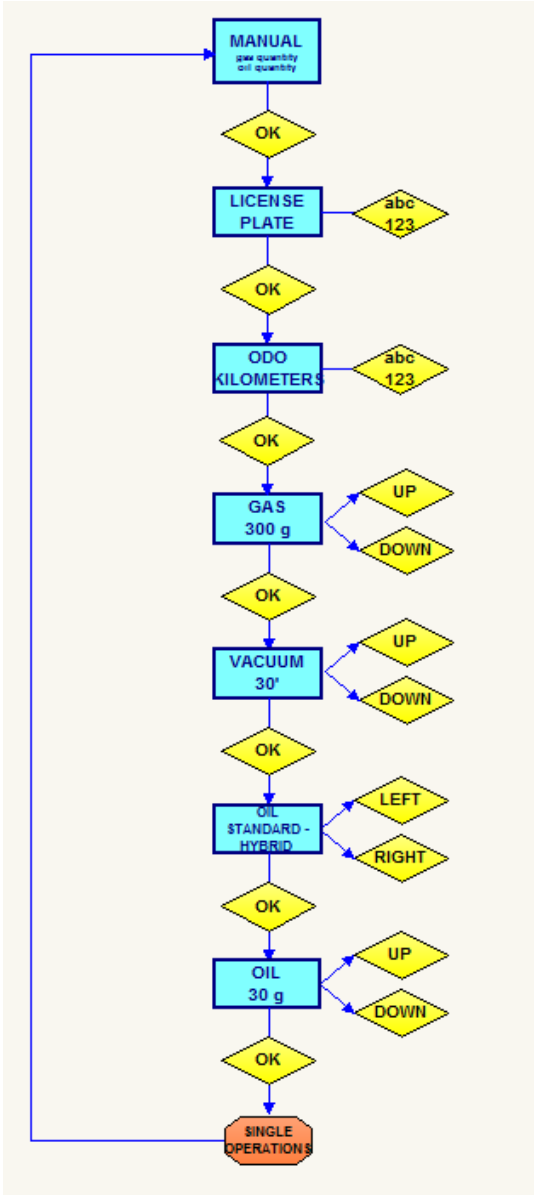
3.6 Synoptic diagram: automatic mode R1234yf



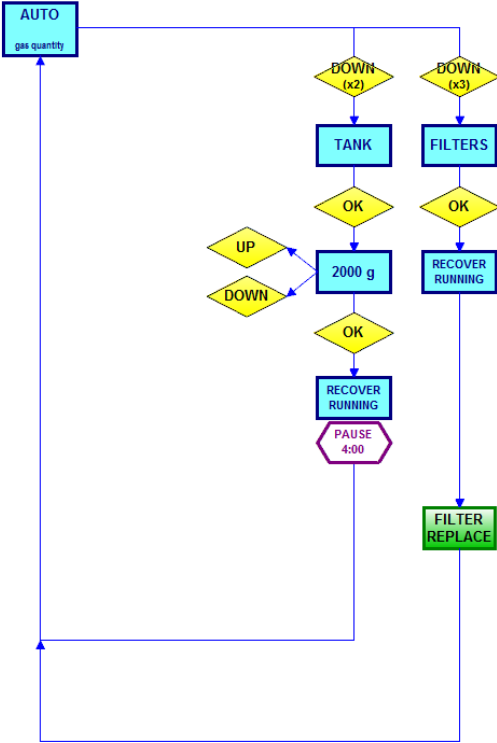
3.7 Synoptic diagram: manual mode R134a



3.8 Synoptic diagram: manual mode R1234yf



3.9 Synoptic diagram: R134a tank and filters mode



3.10 Pressures test

Once the charge operation is over, execute the pressures test by using the table below, in this way:

1. Let the station connected to the car with closed valves.
2. Turn on the car and the car A/C system, setting it to the lowest temperature possible.
3. Let the engine run for some minutes at about 2000 rpm.
4. Check the values on high/low pressure gauges, comparing them with those reported in the table below.

Environment temperature °C	LOW PRESSURE		HIGH PRESSURE	
	R1234yf		R1234yf	
	min	max	min	max
15,5	0,5	- 2,5	6,5	- 10
18	0,5	- 2,5	7	- 12
22	0,5	- 2,5	8	- 14
30	0,5	- 2,5	10	- 17
35	0,5	- 2,5	11,5	- 20
40	0,5	- 3	14	- 22

Note: the pressures test procedure is the same for both fluids.

4 SERVICE

4.1 New/exhausted oil

EXHAUSTED OIL

Empty the oil container when it reaches about 200/220 cc.

The exhausted oil must be disposed of in the appropriate sites.

Do not disperse into the environment.

NEW OIL

New oil level must never be less than 80/100 cc. Under this level, the station is not operative.

We advise to use specific oil recommended by car's manufacturer, or anyway oil suitable for R134a or R1234yf refrigerant, and to respect the quantities recommended by car's manufacturer.

For vehicles with R134a fluid, the following table could be used, although its validity is purely indicative:

Gas quantity (grams)	Suitable oil quantity	Oil ISO 46	Notes
From 270	20		For more dense oils (type ISO 100) increase by 5
From 500	25		
From 750	30		
From 1000	35		
From 1250	10		

WARNING: The quantities reported in the table are purely indicative. Always make sure that the oil is compatible with the one suggested by the car manufacturer.

5 SERVICE

5.1 Dehydrator filter replacement

Recommended interval for filter replacement is 300 cycles. We recommend to execute the maintenance at authorized centers.

R134a PART

Press **DOWN** three times in order to access FILTERS mode and confirming by pressing **OK** to initiate RECOVER. Executing this operation, there will not be gas leaks during filter replacement.

R1234yf PART

Access MAINTENANCE mode by pressing the proper button on control panel. Enter ADVANCED MENU and press **OK**. Input password 2454 and press **OK**. Select FILTER CHANGE and confirm by pressing **OK** in order to begin GAS RECOVERY. Executing this operation, there will not be gas leaks during filter replacement.



WARNING: Mount the filter as in Figure 7.

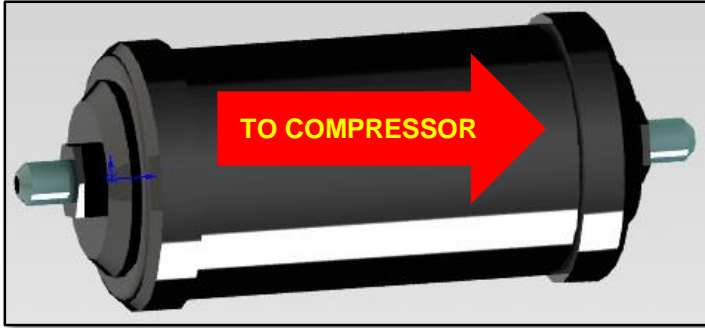


Figure 7

5.2 Vacuum pump oil replacement

Recommended interval for pump oil replacement is 300 cycles. We recommend to execute the maintenance at authorized centers.

- Periodically check the pump oil level.
- Replace pump oil at recommended intervals, and in any case after the first 100 working hours or in the case it darkens.

PROCEDURE

- Empty the pump by the screw at the bottom. (2)
- Open the tap at the top and introduce new oil. (1)
- Check the oil level (it must be about at half of the glass) (3)



WARNING: The exhausted oil must be disposed of in the appropriate sites, following the environmental laws and regulations in force in your nation/region.

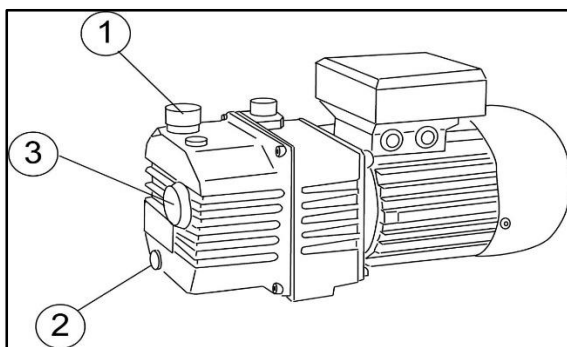


Figure 8

5.3 Date and time setting (R1234yf)

In order to adjust date and time of the station, proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Select DATE & TIME and confirm by pressing **OK**.
3. Input current date by **alphanumeric keys** and confirm by pressing **OK**.
4. Input current time by **alphanumeric keys** and confirm by pressing **OK**.
5. Select the preferred date format and confirm by pressing **OK**.
6. Select the preferred time format and confirm by pressing **OK**.

5.4 Language setting (R134a and R1234yf)

To set the station language, proceed as follows:

1. *R134a* Press **DB-SET** in the main screen.
2. *R1234yf* Access to PARAMETERS mode and confirm by pressing **OK**.
3. Select LANGUAGE and confirm by pressing **OK**.
4. Choose the preferred language from the list using **UP/DOWN arrows** and confirm by pressing **OK**.

5.5 Default vacuum time setting (R1234yf)

In order to set the default vacuum time, proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose VACUUM TIME and confirm by pressing **OK**.
3. Set the vacuum time by **alphanumeric keys** and confirm by pressing **OK**.

The pre-set vacuum time is 30 minutes. We advise to maintain this setting.

5.6 Default oil quantity setting (R1234yf)

To adjust the default oil quantity, proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose OIL QUANTITY and confirm by pressing **OK**.
3. Set the oil quantity by **alphanumeric keys** and confirm by pressing **OK**.

The pre-set oil quantity is 30 grams, and it can be modified at any charging cycle.

5.7 Hoses length setting (R1234yf)

The station allows to modify the HP and LP hoses (tubes) length. Default length is 200 cm.

In order to set hoses length, proceed in this way:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select HOSES LENGTH and confirm by pressing **OK**.
5. Modify the value by pressing **LEFT/RIGHT arrows** and confirm by pressing **OK**.

This operation should be performed by specialized personnel at authorized centers; we strongly advise to avoid performing it yourselves.

5.8 Used-oil bottle capacity setting (R1234yf)

It is possible to set the capacity of used-oil bottle. Default value is 250 grams.

To adjust this parameter, proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select USED OIL BOX GRAMS and confirm by pressing **OK**.
5. Modify the value by pressing **LEFT/RIGHT arrows** and confirm by pressing **OK**.

This operation should be performed by specialized personnel at authorized centers; we strongly advise to avoid performing it yourselves.

5.9 Logo customization (R1234yf)

It is possible to customize the logo appearing on display when turning on the station, with the following procedure:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select CUSTOMIZED BRAND and confirm by pressing **OK**.
5. Modify the logo using **alphanumeric keys** and **arrow keys**, and finally confirm by pressing **OK**.

5.10 Station ID viewing (R1234yf)

Every station has an identification numerical sequence (ID number), which can be shown. The ID is necessary to obtain database updates. Proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select SHOW ID DEVICE and confirm by pressing **OK**.
5. The ID number appears on display. Press **ESC** to return to parameters menu.

Note: it is not possible to send the ID number to the station's printer. It can only be shown on display, so, if necessary, it has to be manually transcribed by user.

5.11 Database loading from USB support (R1234yf)

The station is equipped with an USB port which allows to load new databases into the internal memory (SD card). If the user has an USB drive with a properly created database, he may proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Insert the USB drive into station's USB port.
5. Select LOAD DB FROM USB and confirm by pressing **OK**.
6. The new database is loaded into the internal memory. If the operation fails, an error message may appear.
7. Once done, extract the USB drive.

This operation should be performed by specialized personnel at authorized centers; we strongly advise to avoid performing it yourselves.

5.12 Logs downloading to USB drive (R1234yf)

The USB port may be also used to download station's logs (reports of executed charging cycles) to an USB drive. With a valid USB drive at hand, proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Insert the USB drive into station's USB port.
5. Select DOWNLOAD LOGS and confirm by pressing **OK**.
6. The logs are saved in the USB drive.
7. Once done, extract the USB drive.

5.13 Information about SD memory card (R1234yf)

The station stores its logs on a SD memory card. Information about the card may be viewed as follows:

8. Access to PARAMETERS mode and confirm by pressing **OK**.
9. Choose ADVANCED MENU and confirm by pressing **OK**.
10. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
11. Choose INFO MEMORY SD and confirm by pressing **OK**.
12. The station views the SD total capacity and the SD free space in kilobytes.
13. Press **ESC** to return to parameters menu.

5.14 Logs deletion (R1234yf)

Station's logs can be deleted from SD card. *Warning: the station has no other memories than the SD card, so the logs, once deleted, could not be recovered.* Proceed as follows:

1. Access to PARAMETERS mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select DELETE SD LOG and confirm by pressing **OK**.
5. Press **OK** again to finish the operation.
6. The logs are irredeemably deleted from the SD memory card.

5.15 Station washing (R1234yf)

It is possible to wash the station proceeding as follows:

1. Connect high pressure hose **RED** to high pressure coupling and to the corresponding connector for quick coupling
2. Connect low pressure hose **BLUE** to low pressure coupling and to the corresponding connector for quick coupling.
3. Access to MAINTENANCE mode and confirm by pressing **OK**.
4. Select WASHING STATION and confirm by pressing **OK**.
5. The washing cycle is performed. Once done, disconnect the hoses.

5.16 Last log printing (“print bill”) (R1234yf)

It is possible to print the log of the last charging cycle performed, proceeding as follows:

6. Access to MAINTENANCE mode and confirm by pressing **OK**.
7. Select PRINT BILL and confirm by pressing **OK**.
8. Last operation log is printed.

*Note: it is possible to perform this operation more quickly pressing the **last print button** (→ Fig. 3) on the keyboard.*

5.17 Total cycles viewing (R1234yf)

It is possible to view the total number of charging cycles performed by the station. This operation is particularly useful to program the maintenance. Proceed as follows:

1. Access to MAINTENANCE mode and confirm by pressing **OK**.
2. Select SHOW TOTAL CYCLES and confirm by pressing **OK**.
3. The display shows the total number of cycles performed.

5.18 Gas recovery (R1234yf)

It is possible to manually run the gas recovery in this way:

1. Access to MAINTENANCE mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select GAS RECOVERY and confirm by pressing **OK**.
5. The gas recovery is performed.

This operation should be performed by specialized personnel at authorized centers, with the vehicle properly connected to the station; we strongly advise to avoid performing it yourselves.

5.19 Oil discharging (R1234yf)

It is possible to manually discharge the oil in this way:

1. Access to MAINTENANCE mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select OIL DISCHARGING and confirm by pressing **OK**.
5. The operation is performed.

This operation should be performed by specialized personnel at authorized centers.

5.20 Vacuum phase (R1234yf)

It possible to manually run the vacuum phase in this way:

1. Access to MAINTENANCE mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumerical keys** and confirm by pressing **OK**.
4. Select VACUUM PHASE and confirm by pressing **OK**.
5. The vacuum phase is performed.

This operation should be performed by specialized personnel at authorized centers, with the vehicle properly connected to the station; we strongly advise to avoid performing it yourselves.

5.21 Gas charge (R1234yf)

It is possible to manually run the gas charge in this way:

1. Access to MAINTENANCE mode and confirm by pressing **OK**.
2. Choose ADVANCED MENU and confirm by pressing **OK**.
3. Input password 2454 by **alphanumeric keys** and confirm by pressing **OK**.
4. Select GAS CHARGE and confirm by pressing **OK**.
6. The operation is performed.

This operation should be performed by specialized personnel at authorized centers, with the vehicle properly connected to the station; we strongly advise to avoid performing it yourselves.

5.22 Other operations (R1234yf)

MAINTENANCE menu includes various other possible operations, which *should be executed by specialized personnel at authorized centers*. In particular:

- Gas scale calibration
- New oil scale calibration
- Used oil scale calibration
- Gas tank emptying

We strongly advise to NOT execute these operations by yourselves, because they may involve the dismounting of some parts of the station. Moreover, if not properly performed, these operations may cause malfunctions and potentially dangerous situations, as well as warranty expiration.

6 TECHNICAL SPECIFICATIONS

R134a PART	
COMPRESSOR	9 cc
VACUUM PUMP	2 cfm
GAS TANK	12 litres
FILTERS	High-efficiency filters
WORKING TEMPERATURE	From 10°C to 50°C
VOLTAGE	220 V 50 Hz
RECOVERY SPEED	500 gr/min
REFRIGERANT FLUID TYPE	R134a

R1234yf PART	
COMPRESSOR	9 cc
VACUUM PUMP	2 cfm
GAS TANK	7 litres
FILTERS	High-efficiency filters
WORKING TEMPERATURE	From 10°C to 50°C
VOLTAGE	220/230 V 50 Hz
RECOVERY SPEED	500 gr/min
REFRIGERANT FLUID TYPE	R1234yf

DIMENSIONS: 600x700x1350 mm
WEIGHT: 110 kg

7 TROUBLESHOOTING

PROBLEM	SOLUTIONS
General problems	
The station doesn't work, the switch is not illuminated.	5
Turning on the station, the display is not illuminated.	1-2-3
The station works, but does not accept any input from the control panel.	1-2-3
Weighing problems	
Turning on the station, the gas weight is not indicated, although the fluid is present.	9-10
During the recovery phase, the station does not indicate the weight of recovered gas.	8-9-10-16-20
Working problems	
At the beginning of the cycle, the station bypasses recovery phase and switches directly to vacuum phase.	1-14-15-20
The recovery phase begins, but no gas is recovered.	1-8-14-15-16-20
Vacuum phase does not create vacuum.	1-13-21
Gas charging is not completed.	23-25-26

SOLUTIONS LIST

1. Replace CPU motherboard *
2. Replace display card *
3. Replace display connection cable *
4. Calibrate the station (reset tare)
5. Check main fuse (the one mounted in feeding socket)
6. Check secondary fuse in transformer circuit
7. Replace vacuum switch
8. Replace compressor *
9. Make sure the weight scale is not blocked
10. Replace refrigerant load cell and recalibrate the station
11. Replace oil load cell *
12. Replace solenoid valve *
13. Replace vacuum pump *
14. Replace pressure switch *
15. Verify pressure switch calibration *
16. Make sure the receiver's taps are open
17. Replace heater resistance (if present)
18. Check power cable
19. Replace transformer *
20. Replace solenoid valve INLET *
21. Replace solenoid valve VACUUM *
22. Replace solenoid valve RECOVERY *
23. Replace solenoid valve CHARGE *
24. Replace solenoid valve OIL CHARGE *
25. Check if the vacuum has been performed
26. Check the oil level in new oil container

* = call assistance service

8 SPARE PARTS

For any spare part, contact assistance service.

We recommend to use original spare parts only.

9 CONFORMITY DECLARATION



Dichiarazione di Conformità
EC Declaration of Conformity



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dichiariamo sotto la nostra esclusiva responsabilità che il prodotto
declares under our exclusive responsibility that the product

<i>Device for handling air</i>	<i>with serial number</i>
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alla quale questa dichiarazione si riferisce, risponde alle seguenti Direttive applicabili
to which this declaration relates, complies with the following applicable Directives

2006/42/WE	Machinery Directive
2006/95/WE	Low Voltage Directive
2004/108/WE	Electromagnetic Compatibility Directive

Per la conformità alle suddette direttive sono state seguite, in modo totale o parziale, le seguenti Norme Armonizzate:
In order to comply with the abovementioned directives, were followed, wholly or partly, the following Harmonized Regulations:

EN ISO 12100:2012P	Safety of machinery – General principles for design – Risk assessment and risk reduction
EN 60614-1:2012P	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission
EN 61000-8-3:2008/A1:2012P	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard environments: residential, commercial and light-industrial
EN 61000-8-2:2008P	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
EN 60847-1:2010/A1:2011E	Switchgear and control Voltage – Part 1: Generality
EN 60204-1:2010P	Safety of machinery – Electrical equipment of machines – Part 1: General Requirements

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