

# **USER MANUAL**

#### FOR AUTOMATIC A/C CHARGING STATION

# **GENESIS**



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## INDEX

| 1    | INTRODUCTION                          |
|------|---------------------------------------|
| 1.1  | Safety instructions3                  |
| 2    | EQUIPMENT4                            |
| 3    | USE5                                  |
| 3.1  | Device elements5                      |
| 3.2  | Preparation for first use8            |
| 3.3  | Automatic use11                       |
| 3.4  | Manual use16                          |
| 3.5  | Synoptic diagram: automatic mode19    |
| 3.6  | Synoptic diagram: manual mode20       |
| 3.7  | Pressures test21                      |
| 4    | SERVICE                               |
| 4.1  | New/exhausted oil22                   |
| 4.2  | Dehydrator filter replacement23       |
| 4.3  | Vacuum pump oil replacement24         |
| 4.4  | Date and time setting25               |
| 4.5  | Language setting25                    |
| 4.6  | Default vacuum time setting26         |
| 4.7  | Default oil quantity setting26        |
| 4.8  | Hoses length setting27                |
| 4.9  | Used-oil bottle capacity setting28    |
| 4.10 | D Logo customization29                |
| 4.11 | Station ID viewing30                  |
| 4.12 | 2 Database loading from USB support31 |
| 4.13 | Logs downloading to USB drive32       |

| 4.14 | Information about SD memory card   | 33 |
|------|------------------------------------|----|
| 4.15 | 5 Logs deletion                    | 34 |
| 4.16 | S Station washing                  | 35 |
| 4.17 | 7 Last log printing ("print bill") | 36 |
| 4.18 | 3 Total cycles viewing             | 36 |
| 4.19 | Gas recovery                       | 37 |
| 4.20 | ) Oil discharging                  | 38 |
| 4.21 | Vacuum phase                       | 39 |
| 4.22 | 2 Oil injection                    | 40 |
| 4.23 | 3 Gas charge                       | 41 |
| 4.24 | 4 Other operations                 | 42 |
| 5    | TECHNICAL SPECIFICATIONS           | 43 |
| 6    | TROUBLESHOOTING                    | 44 |
| 7    | SPARE PARTS                        | 46 |
| 8    | CONFORMITY DECLARATION             | 48 |

## **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 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

- High pressure tube **RED**
- Low pressure tube BLUE
- Power cable 230V
- 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:

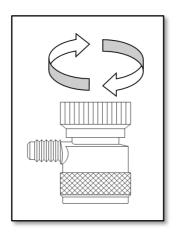
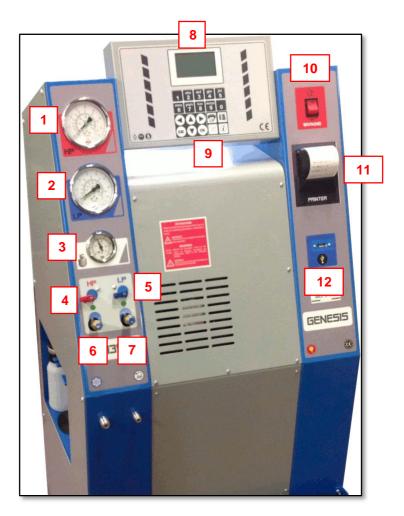


Figure 1

## 3 USE

## **3.1 Device elements**





The station includes the following elements (Figure 2):

| 1 - High pressure gauge:    | for A/C system check and diagnosis               |  |  |  |  |
|-----------------------------|--|--|--|--|--|
| 2 - Low pressure gauge:     | for A/C system and vacuum check and diagnosis    |  |  |  |  |
| 3 - Tank pressure gauge:    | for gas tank pressure check                      |  |  |  |  |
| 4 - High pressure valve:    | opens/closes high pressure (red)                 |  |  |  |  |
| 5 - Low pressure valve:     | opens/closes low pressure (blue)                 |  |  |  |  |
| 6 - High pressure coupling: | connects station to car A/C system via red tube  |  |  |  |  |
| 7 - Low pressure coupling:  | connects station to car A/C system via blue tube |  |  |  |  |
| 8 - Display:                | shows station info                               |  |  |  |  |
| 9 - Keyboard:               | permits to operate on display                    |  |  |  |  |
| 10 - Warming belt button:   | turns on/off the warming belt                    |  |  |  |  |
| 11 - Printer:               | prints the report of charging cycles             |  |  |  |  |
| 12 – USB port:              | permits to interface the station with USB drives |  |  |  |  |

The control panel (display + keyboard) includes the following elements and shows the following information (Figure 3):

| 1 - Current date                           |  |  |  |  |  |
|--|--|--|--|--|--|
| 2 - Available gas quantity                 |  |  |  |  |  |
| 3 - SD card                                |  |  |  |  |  |
| 4 - Current time                           |  |  |  |  |  |
| 5 - Available oil quantity                 |  |  |  |  |  |
| 6 - Main screen                            |  |  |  |  |  |
| 7 - Arrow keys                             |  |  |  |  |  |
| 8 - ESC button (cancel)                    |  |  |  |  |  |
| 9 - OK button (confirm)                    |  |  |  |  |  |
| 10 - Maintenance and settings button       |  |  |  |  |  |
| 11 - Information button (software version) |  |  |  |  |  |
| 12 - Total cycles button                   |  |  |  |  |  |
| 13 - Last print button                     |  |  |  |  |  |
| 14 - Alphanumerical buttons                |  |  |  |  |  |

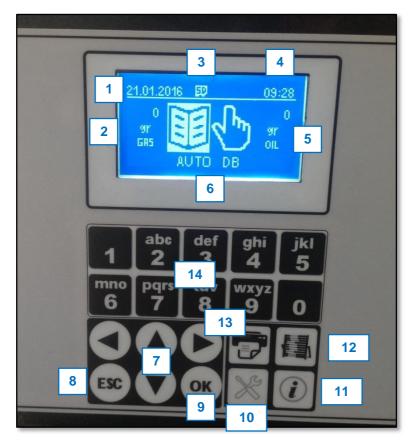
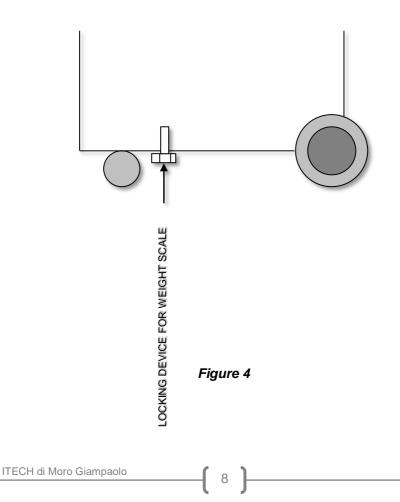


Figure 3

#### 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.



#### PREPARATION PROCEDURE

- 1. Ensure all valves are closed.
- 2. Make sure the car's A/C system is of R1234yf kind.
- 3. Clean the car's connectors.
- 4. Connect tubes to the car's A/C system in this way:

**RED**  $\rightarrow$  high pressure, **BLUE**  $\rightarrow$  low pressure

- Connect power cable to power network (220-240 V) and turn on the station. The refrigerant fluid quantity contained in gas tank will appear on display (for example: 3550 grams), otherwise the display will indicate if gas quantity is insufficient.
- 6. If the gas is not enough, refill the gas tank within 80% of its capacity, in this way:
  - 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 4 according to float presence or absence.

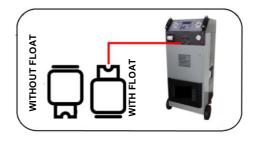


Figure 5

- 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. At this point, refilling operation is over.
- 7. Fill the new oil container ( $\rightarrow$  see paragraph 4.1).
- 8. Open the quick couplings (see Figure 1).
- 9. Open the station **RED** and **BLUE** valves.
- 10. Preparation procedure is done.

### 3.3 Automatic use

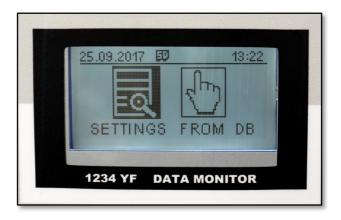
The station works both in completely automatic mode (it does the operations consecutively with minimum user intervention) and in manual mode (user can execute the operations individually).

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

 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 A appears and/or quantities are insufficient. Press OK to begin automatic cycle.



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





- 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.
- 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 <u>automatic mode</u>):
  - 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).

- 5. The display shows START. Confirming by pressing **OK**, the cycle begins automatically, executing in sequence:
  - GAS RECOVEY (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)
- 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.
- 7. Once the pressures test is finished, turn off the station and remove the quick couplings from the car.

## 3.4 Manual use

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:

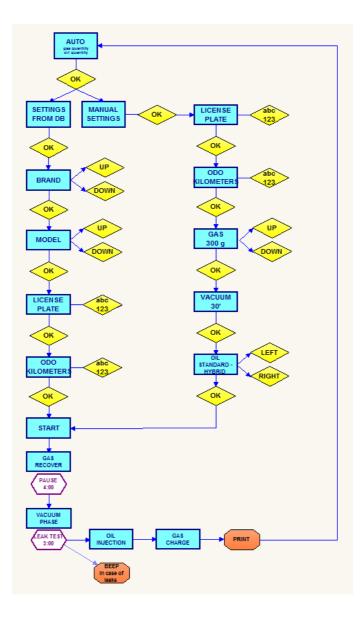
- Press OK to begin manual cycle. First, the station requires to input the vehicle license plate. Use alphanumerical keys to input the license plate and confirm by pressing OK.
- The station requires to input the vehicle total mileage (ODO). Use alphanumerical keys to input the value and confirm by pressing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

- 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.
- 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).

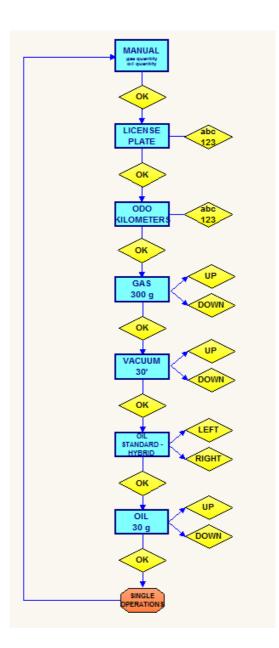
- At this point, it is possible to select the various cycle phaes, which can be chosen by pressing UP/DOWN arrows and executed by pressing OK. Individually-executable phases are:
  - WASHING STATION
  - GAS RECOVERY (with de-icing pause)
  - OIL DISCHARGING
  - VACUUM PHASE (with leaking test "diagnosis")
  - 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



## 3.6 Synoptic diagram: manual mode



### **3.7 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<br>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  |

## 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

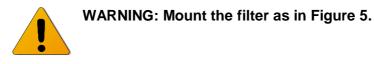
New oil level must never be less than 80/100 cc. Under this level, the station is not operative.

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

## 4.2 Dehydrator filter replacement

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

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.



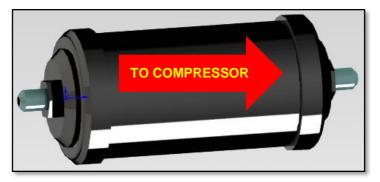


Figure 6

## 4.3 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.

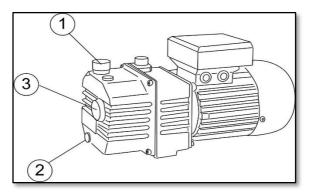


Figure 7

## 4.4 Date and time setting

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 **alphanumerical keys** and confirm by pressing **OK**.
- 4. Input current time by **alphanumerical 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**.

## 4.5 Language setting

To set the station language, proceed as follows:

- 1. Access to PARAMETERS mode and confirm by pressing **OK**.
- 2. Select LANGUAGE and confirm by pressing **OK**.
- Choose the preferred language from the list using UP/DOWN arrows and confirm by pressing OK.

## 4.6 Default vacuum time setting

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 **alphanumerical keys** and confirm by pressing **OK**.

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

## 4.7 Default oil quantity setting

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 **alphanumerical keys** and confirm by pressing **OK**.

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

## 4.8 Hoses length setting

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 **alphanumerical 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.

## 4.9 Used-oil bottle capacity setting

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 **alphanumerical 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.

## 4.10 Logo customization

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 **alphanumerical keys** and confirm by pressing **OK**.
- 4. Select CUSTOMIZED BRAND and confirm by pressing **OK**.
- 5. Modify the logo using **alphanumerical keys** and **arrow keys**, and finally confirm by pressing **OK**.

## 4.11 Station ID viewing

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 **alphanumerical 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.

## 4.12 Database loading from USB support

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 **alphanumerical 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.

## 4.13 Logs downloading to USB drive

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 **alphanumerical 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.

## 4.14 Information about SD memory card

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 **alphanumerical 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.

## 4.15 Logs deletion

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 **alphanumerical 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 <u>irredeemably</u> deleted from the SD memory card.

## 4.16 Station washing

It is possible to wash the station proceeding as follows:

- Connect high pressure hose RED to high pressure coupling and to the corresponding connector for quick coupling, as in picture.
- 2. Connect low pressure hose BLUE to low pressure coupling and to the corresponding connector for quick coupling, as in picture.



- 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.

## 4.17 Last log printing ("print bill")

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** ( $\rightarrow$  Fig. 3) on the keyboard.

#### 4.18 Total cycles viewing

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.

#### 4.19 Gas recovery

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 **alphanumerical 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.

## 4.20 Oil discharging

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 **alphanumerical 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.

#### 4.21 Vacuum phase

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.

### 4.22 Oil injection

It is possible to manually run the oil injection 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 OIL INJECTION 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.

### 4.23 Gas charge

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 **alphanumerical keys** and confirm by pressing **OK**.
- 4. Select GAS CHARGE and confirm by pressing **OK**.
- 7. 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.

#### 4.24 Other operations

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.

# **5 TECHNICAL SPECIFICATIONS**

| COMPRESSOR             | 9 cc                    |
|------------------------|-------------------------|
| VACUUM PUMP            | 80 l/min 0,1 Mbar       |
| GAS TANK               | 7 litres                |
| FILTERS                | High-efficiency filters |
| WORKING TEMPERATURE    | Da 10°C a 50°C          |
| VOLTAGE                | 220/230 V 50 Hz         |
| RECOVERY SPEED         | 500 gr/min              |
| DIMENSIONS             | 550x550x1225 mm         |
| WEIGHT                 | 65 kg                   |
| REFRIGERANT FLUID TYPE | R1234yf                 |

# **6** 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<br>bypasses recovery phase and switches directly<br>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

# 7 SPARE PARTS

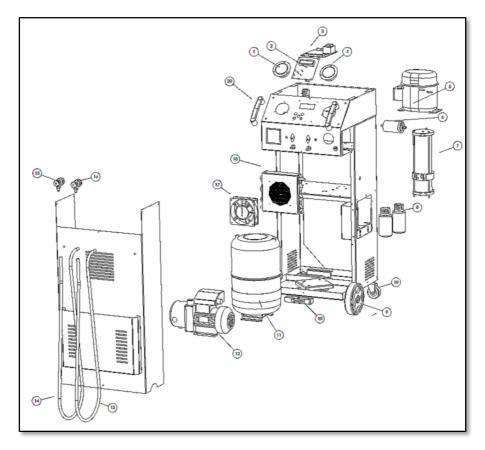


Figure 8

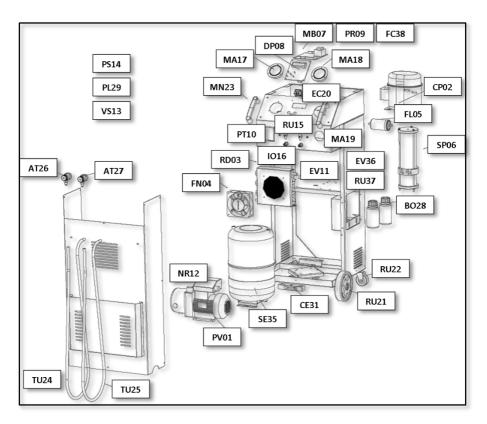


Figure 9

# 8 CONFORMITY DECLARATION



Dichiarazione di Conformità EC Declaration of Conformity



Itech di Moro Giampaolo Via Provinciale, 35 24020 Peia Bergamo Italy

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

| Device for handling air                                |   | with serial number   |
|--|---|--|
| all  |   | e, risponde alle seguenti Direttive applicabili<br>les with the following applicable Directives  |
| 2006/42/WE   | Machinery Directive   |  |
| 2006/95/WE   | Low Voltage Directive   |  |
| 2004/108/WE  | Electromagnetic Compatibility Directive   | e  |
|  |   | modo totale o parziale, le seguenti Norme Armonizzate<br>or party, the following Harmonized Regulations:   |
|  |   |  |
| EN 180 12100:2012P                                     | Safety of machinery - General principles for design -   | - Risk assessment and risk reduction   |
| EN 180 12100:2012P<br>EN 66014-1:2012P                 |   | - Risk assessment and risk reduction<br>sehold appliances, electric tools and similar apparatus - Part 1: Emission   |
|  | Electomagnetic compatibility - Requirements for hou   | sehold appliances, electric tools and similar apparatus – Part 1: Emission   |
| EN 66014-1:2012P                                       | Electomagnetic compatibility – Requirements for hou<br>Electromagnetic compatibility (EMC) – Part 6-3: Gen                      | sehold appliances, electric tools and similar apparatus – Part 1: Emission<br>effc standards – Emission standard environments: residential, commercial and |
| EN 6601 <b>4-1:2012P</b><br>EN 61000-8-3:2008/A1:2012P | Electromagnetic compatibility - Requirements for hou<br>Electromagnetic compatibility (EMC) - Part 6-3: Gen<br>light-industrial | sehold appliances, electric tools and similar apparatus – Part 1: Emission<br>effc standards – Emission standard environments: residential, commercial and |

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