

GB

# **Instruction manual**

# **OK CLIMA**



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## 1.0 SCOPE OF THE MANUAL

This manual is supposed for the using and maintenance of the recycling, recovery, vacuum and recharge station OK CLIMA. It is absolutely necessary to read this manual attentively before the using the device. This device is equipped with means of security, which are helpful to protect the user against harms or injuries.

The producer denies every responsibility for damages, which can be caused through false treatment of the devices by the user especially if the using of the security devices has not been adhered to. The instruction manual is a firm part of the device and needs to accompany it every time, even in case of sale.

This symbol is being used if the instructions of the manual are not being respected or a false interpretation of the instructions is present this can cause injuries to people.



ATTENTION

The device is being identified via a sign, which shows the description of the model, the construction year and the serial number. The sign is attached to the side of the device. (fig,1).

Fig.1



## ATTENTION

**The device is supposed to be only for specialists, which are familiar with Freon systems and the damages/injuries they can cause.**



The OK CLIMA-device is capable to perform the phases of recovery, recycling, vacuum and Recharge in A/C systems of vehicles and industrial vehicle, which contain the cooling liquid R 134. Each responsibility of the producer ceases at the forbidden use of a different cooling Liquid/freon.



## 1.1 SECURITY FEATURES



For the work in the presence of freon it is absolutely necessary to wear protection gloves and protection glasses.

Use the device at best in a room which is well aired in order to avoid possible inhalation of the freon.

If the Freon comes into contact with the skin accidentally perform as follows:



- 1) Wash the zones in question with water;
- 2) Remove carefully the contaminated protection clothes.

Careful: the protection suits can sting/glue to the skin and can cause fire injuries in case of frost;



- 3) Consult a doctor.

*In case of accidental contact with the eyes perform as follows:*

- 1) Rinse the eyes well with water and contact a doctor immediately.

*If the freon is accidentally swallowed perform as follows:*



- 1) Wash well your mouth and drink lots of water.
- 2) Contact medical assistance.

## CAP. 2 TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS	
Compressor:	Hermetic with the recovered automatic oil
Capacity:	1/3 PS
Recovery capacity (liquid phase)	400gr/min
Vacuum pump:	One-step
Capacity:	4m <sup>3</sup> /h
Vacuum grad:	7x10 <sup>2</sup>
Vacuum test:	Automatically with alarm sound and message on display
Deposit bottle:	With heating – two containers and security valve
Capacity of freon:	18Kg
Exactness of scale:	+/- 10gr
Current Supply:	220v
Loudness:	under 80dB (measured with sound level meter class 2 according to norm IEC 651.804)
Tube length:	3 mt
Measurements of the devices:	
Weight:	Kg

### Enclosed Accessories:

- 1 Low pressure hose l = 3mt
- 1 High pressure hose l = 3 mt
- 1 Quick coupling low pressure
- 1 Quick coupling high pressure
- 1 Plastic bottle with 250 gr for fresh oil filling
- 1 Plastic bottles with 250 gr for old oil discharge
- 1 cable power supply

Fig.2



### Accessories on request:

- Detector's lamp Art. 19CR export SI
- Electronic leak search device TIF RX-1
- O-Ring-Set 150 in Viton Art.47CR
- O-Ring-Set 360 in Viton, Art. 47.3CR
- Digital-Thermometer DT10K
- Oil container for R134a, Art.21CR
- Oil container for vacuum pump 1/2lt Art. AV68I
- Data base and electrical switch plan + CD-Rom for A/C plants Art. 037.14DT
- Retrofit kit for A/C plants Art. Retrofit 715
- Leakage sealing set for A/C plants Art. Super Seal

### 3.0 RECOMMENDATIONS FOR THE CORRECT USE OF THE DEVICE



Please check before the switching-on of the device whether oil is present in the vacuum pump:  
If oil is missing fill it up to the level which has to be visible with the adequate cap.  
Use exclusively mineral oil for vacuum pumps Type AV68 (art. AV68I).

### 3.1 INSTALLATION

The device has to be transported and set-up in vertical position. Tilting the device can cause exit of oil from the vacuum pump and the compressor. The device may only be used on even floors. It is not advisable to use it on unknown area outside the workshop.

### 3.2 PREPARATION OF THE STATION

Assure yourself before the starting of the station, that the net tension is as shown on the shield, which is displayed close to the socket of the switch.



### IMPORTANT



It is advised to adhere absolutely strict to the security features given above. They are given for the protection of the personnel, which is using the systems and the cooling liquid/freon under pressure

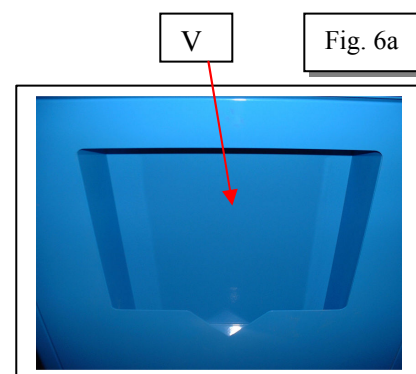
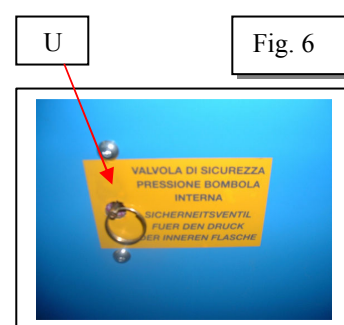
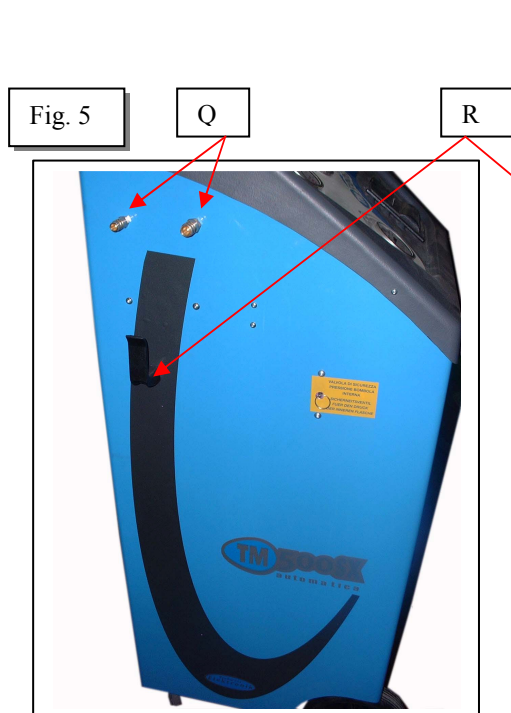
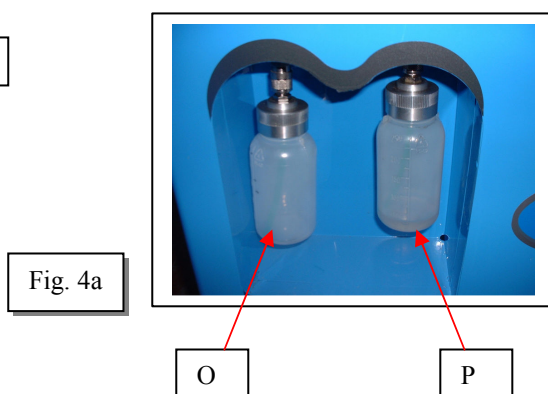
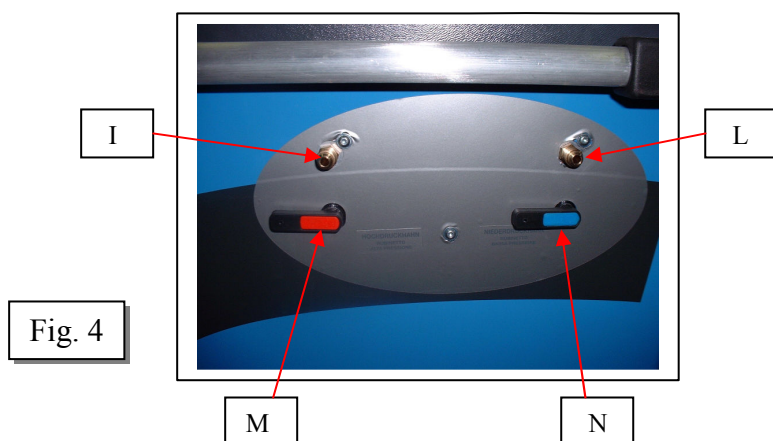
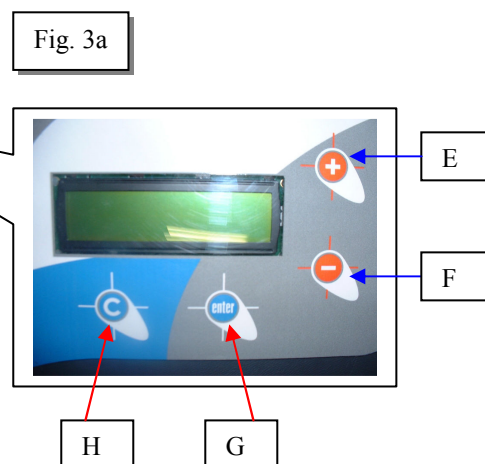
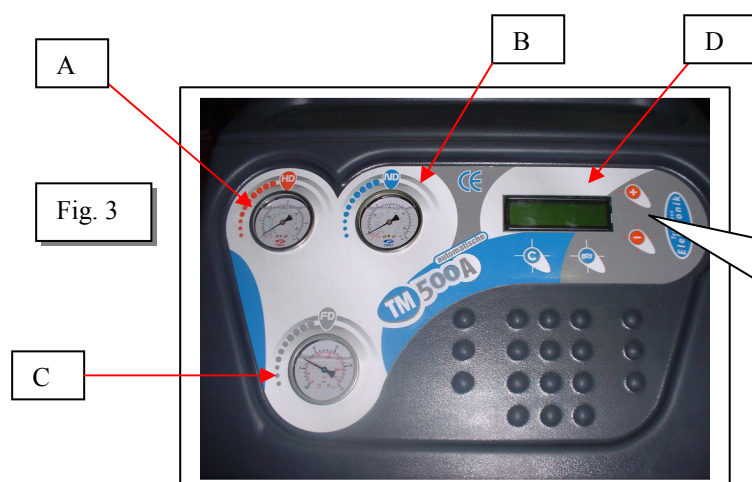
### 3.3 PERFORMABLE WORKS

The OK CLIMA is capable to perform the following phases: recovery, recycling, vacuum and charging of air conditioning plants for vehicles and industrial vehicles, which contain freon R134A. The producer denies every responsibility which derives from the forbidden use of other Freon.

### 3.4 SECURITY DEVICES

- Security valve, calibrated to 16 bar fuer the internal bottle.
- thermal protection for the compressor against surcharge (within the compressor)
- electronic alarm for the filling of additional 1'80% of the capacity (ERR4) and the minimum Gas amount (ERR1) which is necessary for the performance of the recharge (< 1Kg ).
- Alarm on handling error (ERR5) in case of the try of a performance of the vacuum with the plant under pressure..
- Control display of the level of oil in the pump.
- Pressure control of the minimal pressure ( $P = 0$ ) for the elimination of the compressor recovery.
- Vacuum meter for automatic leak control.
- Electro valve for complete automatism of the functions.
- switch plan display LCD with 2 lines and with electronic protection (PTC).
- Security protection on the receipt module.
- automatic bottle heating (Use in winter)

## CAP. 4 DESCRIPTION OF THE STATION



## LEGEND

A	HIGH PRESSURE GAUGE
B	LOW PRESSURE GAUGE
C	BOTTLE PRESSURE GAUGE
D	DISPLAY LCD ILLUMINATED WITH 2 LINES
E	KEY “+” FOR CHANGING THE CHOICE/PARAMETER
F	KEY “-” FOR CHANGING THE CHOICE/PARAMETER
G	KEY “ENTER” TO CONFIRM THE CHOICE/PARAMETER
H	KEY “C” FOR EXIT/DELETE OF PROGRAM
I	LOW PRESSURE COUPLING
L	HIGH PRESSURE COUPLING
M	HIGH PRESSURE COCK
N	LOW PRESSURE COCK
O	OIL DISCHARGING TANK
P	OIL REFILLING TANK
Q	FALSE COUPLING
R	HOOKS FOR HOSE HANGING
S	GENERAL SWITCH WITH SECURITY SWITCH (10A x 20)
T	BEEPERS
U	BOTTLE’S SECURITY VALVE
V	DISPOSAL DRAWER FOR ACCESSORIES
Z	PRINTER (optional)

### 4.1 MESSAGES ON DISPLAY

**All messages/signal will be displayed on the display LCD with message.**

At switch-on the display shows the amount of freon, which is available within the internal bottle. If an error occurs during the execution of the phases, the display will show an Error according to the following messages:

The message **ERR1** occurs if a minimal amount of freon is available within the inner bottle (<1kg). In this case the freon has to be recovered from an external bottle (see chap. 6.0).

The message **ERR2** will be shown if a leak is detected within the air conditioning device of the vehicle during the vacuum test (see chap. 6.3).

The message **ERR3** is inactive;

The message **ERR4** will be shown when the internal bottle contains a too high amount of cooling liquid (>15 kg) and this is just about to perform the recovery. In this case a charging of the external container has to be performed. (see chap. 6.0).

The message **ERR5** will be shown if a “vacuum” is performed with the A/C station under pressure or if during the vacuum phase a pressure rise occurs. (>0,5 bar). In this case a recovery has to be performed first (see chap. 6.4

The message **Attention 6** means that the interval for maintenance (150 h) is overdue – exchange the internal filter.

The message **Attention 7** will be shown if the recovery is being performed (manually) and the pressure of the plant, which should be checked is under 0,5 bar – circulation empty. (chap. 6.2);

The message **Attention 8** will be shown if the recharging of the internal bottle and the external bottle is empty or is emptying now before the programming of the charge is finished (Chap. 6.0).

The message **Attention 9** will be shown if the recovery from the external bottle is finished, you need to close the cock of the bottle and press the key „Enter“ for the recovery of the gas in the tubes.



## CHAP.5 PREPARATION OF THE STATION

FOR THE PREPARATION OF THE USE OF THE STATION WE REFER TO THE PHOTO ON PAGE 5.

- 1- Install the tubes onto the high- and low pressure coupling (I-L) as described in fig.7.
- 2- Screw the quick couplings onto the tubes (blue = low pressure – red = high pressure).

Fig. 7

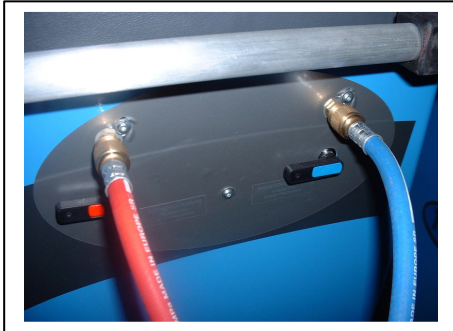


Fig. 8



- 3- Close the high and low pressure cocks (M-N).
- 4- Insert the plug into the socket and turn the general switch (S) in order to switch-on the station.
- 5- Read the amount of cooling liquid from the display, which is available within the internal bottle.
- 6- Refill the container with fresh oil (P) with the adequate synthetic oil for cooling (optional).

- **ATTENTION: The heating of the bottle functions automatically.**

Fig. 9



P



Synthetic oil for cooling R134  
(optional)

## 6.0 RECHARGE OF GAS (Charge internal bottle)

The amount of freon, which is present in the internal bottle, has been inserted for the performance of the check and controll of the station and is sufficient for performing a complete charging; Therefore it is advisable at switch-on to charge the necessary gas with the use of an external bottle.

At switch-on appears the amount of freon on the display, which is available within the inner bottle; by pressing the arrow keys + or – the continuous menu will be shown, it will be displayed in subsequent order (by constantly pressing the key +) 1. MANUAL 2. HALF AUTOMATIC; 3. AUTOMATIC; 4. DATA BASE; 5. UTILITY; go back to the amounts of gas, which are present in the bottle;

- Choose the program “UTILITY” and confirm with “ENTER”;
- Choose “Gas Recharge” with the keys “+ and –“ and confirm with “ENTER”;
- The display shows the message “CHARGE” and a certain amount of gas;
- Program the amount of gas which is requested to perform the recharge with the arrow keys “+ and –“ ;
- Confirm with key “ENTER”;
- Like that start the performance of the recharge, the display will show the gas, which is recovered and additionally the amount of the total gas which is being recovered until the end of the operation;
- Attention!!! At the end of the recovery the display shows the message “Attention 9” close the cock of the bottle and press the key “ENTER”, like that the remaining gas within the external tubes is recovered.
- If the external bottle is empty the display will show the message “Attention 8 external bottle empty”. The same message appears, if the bottle empties during the recovery phase.

The device is equipped with a security device, which controls the amount of gas, which is available within the internal bottle; if it for the performance of the recovery with the refilled bottle the border of the alarm (1,5 kg) on the display then appears the message of the full bottle in addition to the message ERR 4. In this case you can only perform the steps of the vacuum and charging until the amount of gas within the bottle has fallen again under 15 kg.

If the amount of gas available within the internal bottle is insufficient after the programming, the display will show **ERR1** as well as the message of the insufficient gas in the bottle, in this case it is necessary to carry-on as mentioned under “recharge gas”;

The internal bottle is supplied with a mechanic security valve, which opens automatically, when the pressure rises over 16 bar. A second, better reachable valve is positioned at the side of the small oil discharge bottle.

## 6.1 PRESSURE TEST OF PLANT A/C

- The two high- and low pressure cocks **need to be closed**.
- Press the key “C” on the keyboard.
- Start the vehicle in gear of 1500 r.p.m.
- Switch-on the A/C device.
- Control the pressure on the gauges “A” and “B” according to the following list:

T. surrounding	LOW PRESSURE	HIGH PRESSURE
°C 15	0,5 – 2,0	7,5 - 13
°C 20	0,5 – 2,5	10 - 16
°C 25	0,5 – 2,5	12 - 18
°C 30	0,5 - 3	12 - 20

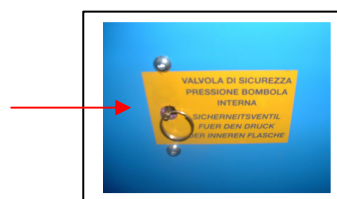


Fig. 12

## 6.2 MANUAL

From the base menu press the key "ENTER", like that you can enter into the submenu, which contains the following parameter:

RECOVERY, VACUUM, OIL INJECTION, CHARGING;

[RECOVERY \(manual\)](#);

For the performance of the recovery of freon press the key "ENTER" after the choice "Recovery". If the plant is empty (PRESSURE ZERO), the message "Attention 7 plant empty, control whether the cocks of the station and the quick couplings are open" will appear.

At the presence of freon the recovery will be performed within the A/C plant; at the end the recovery will be performed by the station automatically the discharge of the old oil. To interrupt press key "C".

[VACUUM \(manual\)](#);

For the performance of the vacuum the plant has to be emptied (Pressure under or equal zero), otherwise the message [ERR 5 Plant under pressure appears](#);

Press the key "ENTER" after the choice "VACUUM";

Program the vacuum time with the arrow keys "+" or "-"; it is possible to program a time between 1 and 180 minutes;

Confirm the programmed time with the "ENTER"- key;

On the display the message "test" will appear, like this it is possible to program the duration of the leak test between 0 and 30 minutes; via insertion „0“ the leak test will not be executed.

Confirm the choice with the key "ENTER", like that the vacuum phase will begin;

After ending of the vacuum phase the leak test will be performed (if programmed preliminary).

If leaks are present within the A/C plant, the display will show the message "[ERR 2 – Density of vacuum insufficient](#)"; in this case you need to search for possible leaks with the help of the leak detector or the electronic leak search device (accessories on request). Press „C“ to exit.

If no leaks are present, the display will again show the amount of freon in the bottle. If during the vacuum phase occurs a rise of pressure (0,5 bar), the station is automatically switching-off and the message „ERR 5“ appears on the display. In this case perform a recovery before continuing.

[OIL INJECTION \(Manual\)](#);

The injection of oil into the A/C station can only be performed, if the plant is in under pressure and this means after the vacuum phase. For the charge of oil into the plant, press the key "ENTER" after the choice "OIL INJECTION"; Program the amount of oil to be inserted into the plant with the arrow keys and confirm with key "ENTER"; At the end of the performance the display shows the amount of freon present in the bottle. It is possible to mix the oil beforehand within the container with an additive, which is integrated within the leaksearcher (on request) in order to emphasize possible existing leaks.

[CHARGING OF FREON \(manual\)](#);

To perform the charge of freon into the A/C plant (as usual with the plant in low pressure), press the key "ENTER" after the choice "CHARGING";

Program the amount of gas, which is supposed to be loaded into the plant with the arrow keys "+" or "-", Press the key "ENTER" to confirm;

Like that starts the charging of the plant A/C.

**PLEASE NOTE:** the loading will be performed simultaneously via high- and low pressure, if the pressure in the inner bottle is higher (over 9 bar), it is advisable to perform the charging only over the high pressure (also only partially), by closing the low pressure cock.

At the end of the charging of the station a sequence of beeps will resound from the station and the display will show the amount of gas loaded into the plan.

If during the programming of the charge appears "[ERR1 – Gas in bottle insufficient](#)", you need to recover gas from an external bottle (see par. 6.0) before you continue. The message ERR1, will be shown during the programming, if the difference between the necessary and the really present freon in the bottle lies under 1 kg. Press the key „C“ to exit.

### 6.3 HALF AUTOMATIC

With the program “half automatic”, it is automatically possible to perform the following phases: - Recovery – Oil discharge – Vacuum – vacuum test;

Choose from the main menu “**half automatic**” and confirm with “ENTER”;

- The display shows: “vacuum time”;
- Program with the arrow keys “+” and “-” the vacuum time, it is possible to program a time between 1 and 180 minutes
- Confirm the programmed time with the key “ENTER”;
- The display shows “Vacuum test”;
- Program the duration of the vacuum test with the arrow keys “+” and “-”; it is possible to program the duration of the test between 0-30 minutes; insertion of „0“, the leak test will not be performed;
- Confirm the choice with key “ENTER”;

The station carries-out automatically the following Steps:

First recovery – 2 minutes pause – second recovery – oil discharge – vacuum – leak test (if programmed); if leaks have come up, the display will show the message „oil injection“;

- Program the amount of oil with the arrow keys “+ and –“ (if you insert “0” of oil, the oil charge will not be executed);
- Confirm the choice with key “ENTER”;
- Program the amount of gas to charge with the arrow keys “+ and –“, confirm the choice with the key “ENTER”.

**Please note: the charging will be performed simultaneously via high- and low pressure, if the pressure within the internal bottle is increased (over 9 bar), it is advisable to perform the charging only via the high pressure (also only partial), by closing the low pressure cocks..**

Then perform the pressure tests (see par. 6.1), separate the connections of the A/C station and perform a manual recovery by discharging of the pressure out of the tubes.

If leaks are present within the A/C plant (only if previous the leak test has been programmed), the display shows the message “**ERR 2** – Vacuum density insufficient“; in this case possible leaks have to be traced with the help of a leak search lamp or an electronic leak detector (accessories on request). Press „C“ to exit.

If during the programming of the charge the fault “**ERR1** – insufficient gas in the bottle” occurs, you need to recover gas from an external bottle before continuing (see par. 6.0). The message ERR 1 will be shown during the programming when the difference between the necessary and the really present freon in the bottle is less than 1 kg. Press “C” to exit.

**Attention:** It is possible to print out the performed steps by pressing the key “**enter**” for 2 seconds (on the display appears “printig”), or the key “**print**” on the printer, always after having pressed the key “C”.

**PLEASE NOTE THAT** if during the oil discharge an increase of the pressure occurs (> 0,5 bar), the station automatically continues with the recovery phase.

**PLEASE NOTE THAT** if an increase of pressure occurs during the vacuum phase (> 0,5 bar), the station switches off and the message **Error 5** appears on the display. In this case perform a recovery before continuing.

## 6.4 AUTOMATC

With the program “**automatic**”, it is possible to execute all phases automatically (from the recovery to the charge); Ensure that the station has a sufficient amount of freon before switching-on the station in order to function properly, otherwise perform a recovery as mentioned in par. 6.0.

From the main menu pressing the arrow key “+” the following steps will be shown:

MANUAL; 2.HALF AUTOMATIC; 3.AUTOMATIC; 4.DATA BASE; 5.UTILITY; Return to the amount of gas, which is within the bottle;

- Choose “automatic” with the keys “+ and –” and press “ENTER”;
- The display shows the message “Vacuum”;
- Program the vacuum time with the keys “+ and –”; confirm with “ENTER”;
- the display shows “vacuum test”;
- Program the duration of the test with the keys “+ and –” and confirm with ENTER”; by pressing of „0” the vacuum test will not be executed;
- The display shows “oil injection”;
- Program with the arrow keys “+ and –” and confirm with key “ENTER”; by the programming of “0” the oil filling will not be executed;
- The display shows “gas charging”;
- Program with the arrow keys “+ and –” and confirm with key ”ENTER”;
- The station will perform all phases automatically;

**FOR THE PRINT-OUT OF DATA (only in printer version):**

- At the end of the cycle press the key “C”;

- Press “**print**” on the printer (see par. 7);

Attention: If you like to interrupt the phases the data will not be memorized and therefore will not be printed.

Carry out the pressure control (see par. 6.1), separate the connectors from the plant A/C and perform a manual recovery by releasing the pressure from the tubes.

If leaks occur within the plant (only if previously a leak test has been programmed), the display will show the message “**Error 2** – Vacuum density insufficient“; in this case a possible leak has to be searched by using a leak search lamp or an electronic leak detector (accessories on request). Press „C” to exit.

**PLEASE NOTE** If during the programming of the charging the message “**Error 1** – Gas in bottle insufficient” occurs, you have to recover first gas from an external bottle before continuing (see par. 6.0). The message **Error 1**, will be shown during the programming, if the difference between the necessary and the really present freon in the bottle is less than 1 kg. Press „C” to exit.

**PLEASE NOTE** If during the oil discharge an increase of pressure (> 0,5bar) occurs, the station will carry-on automatically with the recovery phase.

**PLEASE NOTE** if a pressure increase (> 0,5 bar) occurs during the vacuum phase, the station switches-off and the message **Error 5** appears on the display. In this case perform a recovery before continuing.

## 6.5 DATA BANK (personalized – vehicles)

With the personalized data bank it is possible to memorize 30 vehicles and to give them an appropriate number; like that it is possible to perform all phases by simply calling the appropriate vehicle number;

For execution press the key “ENTER” after you have chosen “data base” from the main menu; the display shows “program choice”; while pressing of one of the two arrow keys the display shows “Setting”; With “Setting” you program the data banks, with “choose programmes” you recall the memorized data.

### “INSERT”:

- Press “ENTER”, the first number above on the right (memorized number) illuminates;
- Choose the memory number, which you like to program (from 1-30) via the arrow keys (von 1 bis 30);
- Confirm with “ENTER”;
- The first cipher above left illuminates (duration of vacuum time);
- Program the required vacuum time with the arrow keys and confirm with “ENTER”;
- that illuminates automatically the second cipher;
- Program the duration of the vacuum test and confirm with “ENTER”, by pressing of “0”, the vacuum test will not be performed;
- Program the amount of fresh oil, which should be inserted within the plant with the arrow keys and confirm with key „ENTER”;
- program at the end the amount of gas to be inserted within the plant and confirm with “ENTER”;

Repeat the same steps to memorize the other positions of the data bank;

### CHOICE OF DATA BANKS MEMORIZED:

For the choice of the memorized positions of the data bank, choose “Choice programs” and confirm with the key “ENTER”;

- the number above right illuminates;
- Choose with the arrow keys “+ and –“ the number of the data bank according to the car’s sign of the car which should be charged;
- The display shows (from sx to dx): vacuum time - duration vacuum test- amount of oil – amount of gas; Confirm with key “ENTER”, like that all phases are being carried out automatically.

### Database vehicles

- to proceed press the key “ENTER” after having selected “data bank vehicle” from the menu;
- choose the car manufacturer with the keys “+” and “-“ and confirm with “Enter”;
- choose the present model with the keys “+” and “-“ and confirm with “Enter”;
- the display will show the parameters in memory
- confirm with the key “Enter”;
- now the whole automatic cycle will be performed.



## 6.6 UTILITY

With the program “Using”, it is possible to perform the following steps: gas recharge – calibration test- measure unit – language – printer heading- service

### Recharge GAS

See Chap. 6.0

### CALIBRATION TEST

Choose “Calibration test” and confirm with key “ENTER”, on the display appears the weight of the gas in the bottle and the coefficient of the cell. While putting the sample weight on the bottle, one can exactly read the total weight from the display; the displays shows similarly the coefficient of the cell (for technical service).

### MEASURE UNIT

It is possible to display the measuring unit in kg or pound;

Choose the “Measuring unit” and press the key “ENTER”;

Choose with the arrow keys the desired measuring unit and confirm with the key “ENTER”.

### LANGUAGE

Confirm with „Enter“ and choose with the arrow keys the requested language (italian-english-french-german, to confirm the choice press „Enter“

### PRINTER HEADING (is for Printer version)

- 1) Select “printer heading” and push the ENTER key ;
  - 2) The display shows “R1” (line no.);
  - 3) Push the “ENTER” key, the first character will blink (or the first line);
  - 4) With the arrow keys (+ and -) it is possible to select the requested character (numbers-symbols-capital letters-small letters- space);
  - 5) Confirm your choice with the “ENTER” key;
  - 6) Next character will automatically blink;
  - 7) Repeat the procedure from the step no. 4;
  - 8) With the setting of the 24th character you will skip to the second line;
  - 9) If you want to jump the line push “+” while any character or any line is blinking;
  - 10) Set data as per the step no. 3;
  - 11) Once set the 9th line push “ENTER” until the display will show again the message “printer heading”;
- The heading is in this way memorized

Printer (optional)



### TECHNICAL SERVICE (ONLY FOR THE TECHNICAL SERVICE)

Insert the pass word in order to perform the calibration of the scale.

## 7.0 HEATING INTERNAL BOTTLE

The heating of the bottle, with the following pressure rise, favours the charge of freon into the A/C plant in the cool season of the year (with a bottle pressure < than 5-6 bar). The switch-on of the heating is being performed automatically.



To maintain the station with full efficiency it is necessary to perform regular maintenances.  
*The disrespect of performing the maintenances from the customers side frees the producer  
From every responsibility concerning the guarantee.*

All maintenance works have to be performed after the separation of the station from the net. Replace the drier filter and the oil of the pump regularly (according to the use) and clean the de-oiling filter as well. The display will then show the message „Attention 9“, for the performance of the maintenance of the station after 150 hours of functioning of the compressor.

### Pump oil

Replace the pump oil every 100/150 hours of functioning or at least every 2 years even when the station is not continuously in use. The exchange of oil is absolutely necessary even when the presence of polluting substances can cause cloudiness, in this case this can cause irreversible damages on the mechanical parts of the pump. Use only mineral oil for vacuum pumps type AV68I.

The amount is approx. 300 gram.

### Oil refill

- 1) Fill the new oil into the cap “b”, until you reach the height of the appropriate glass.

### Exchange of pump oil

- 1) Discharge the oil from the cap “a”.
- 2) Insert the new oil via the cap “b”, until you reach the height of the appropriate visualizing glass “c”.

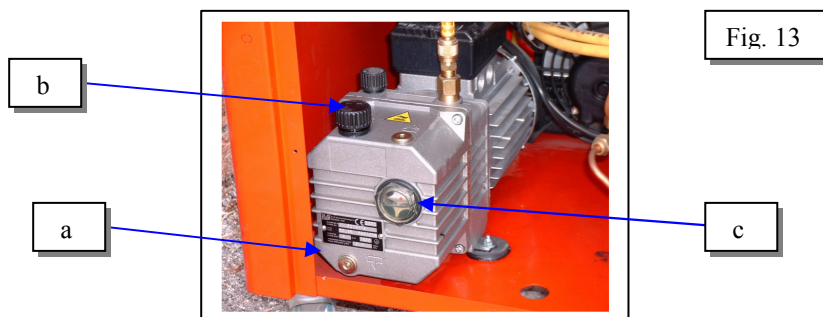


Fig. 13

*Attention: Do not dispose of the oil via normal waste but via special waste according to the law. Cod. Oil exchange: AV68I*



**Exchange of drier filter.**

Exchange the drier filter every 100/150 working hours of the recovery compressor or at least every 2 years even when the station is not in continuous use.

- 1) Separate the rear panel from the station.
- 2) Unscrew the filter slowly and carefully.
- 3) Install the new filter (in considering of the direction).

Fig.14



*Attention: Do not dispose of the filter with normal waste but with special waste according to the law.*  
Art. Exchange of de-oiling filter

**Maintenance of oil discharging filter.**

The oil-discharging filter has to be cleaned every time the dryer filter is exchanged.

- 1) Separate the rear panel from the station.
- 2) Unscrew the filter and clean the inner retina.



Fig.16 oil-discharging filter

## CHAP. 8 Suggestions to solve functioning problems

In order to solve problems please keep exactly to the security norms mentioned in Chap 1.

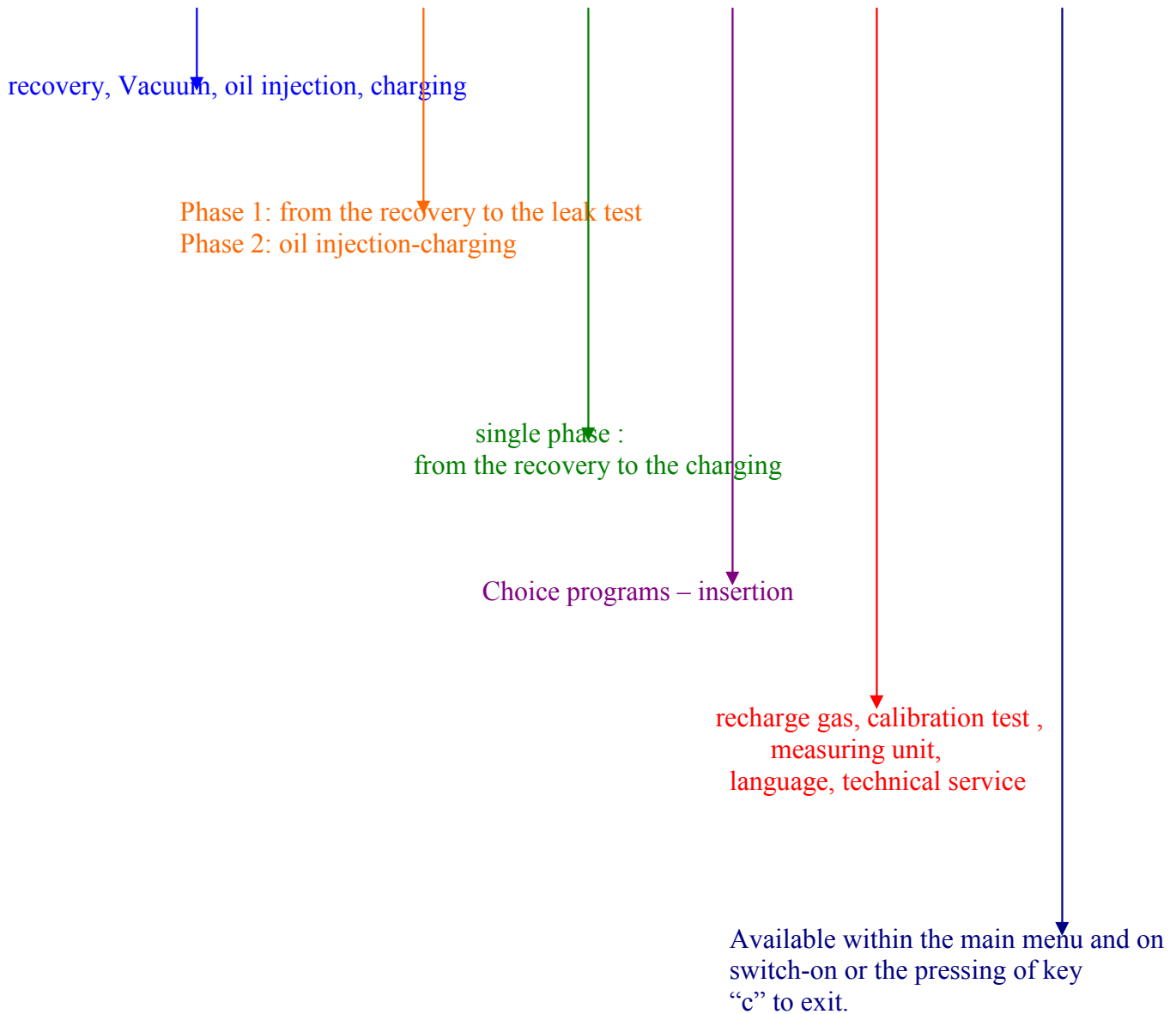
PROBLEM	Solving
The station does not switch-on; The main switch does not illuminate.	Control the security of the mounted line on the switch-on block.
At switch-on the display remains switched-off; the main switch does not glow	1) Control the cabling on the switch board display. 2) possible default: power supply – switchboard CPU Call the technician.
The display shows a completely false amount of gas within the bottle.	1) Control the tightening of the screws of the balance sensor; 2) Calibrate the balance (chap. 6.6 technical service); Call the technician.
The recovery starts but no gas is being recovered.	Possible default: 1) Compressor; Call the technician.
The station is blocked in the recovery phase; The high and low pressure gauges are on zero;	1) Calibrate if possible the pressure control.
The station finishes the recovery phase but the high- and low pressure gauge show the presence of gas (> zero).	1) Calibrate if possible the pressure control.
The station is blocked in the recovery phase; The high- and low pressure gauges are under pressure.	Close the cock within the bottle: 1) The station finishes the recovery phase (gauge on zero): Electro-charging valve EV2 blocked. 2) The station remains furthermore within the recovery phase: Possible default: Compressor Art OMT021CR000. Call the technician.
The charging phase starts but the gas does not come out of the Station; The high and low pressure gauges remain on zero.	Possible default: One-Way-Valve of charging (after the electro valve) Art. 0RR026CR000. Call the technician.
Smoke comes out of the pump in the vacuum phase; the sound of the pump is not normal/regular.	Possible suction of air; 1) Close the cock of the station and try anew, whether the pump is starting its function, control the joints of the tubes and connectors. 2) Control the oil level of the pump.
The display shows ever ERR2 during the leak test.	1) close the cocks and try to perform a vacuum for 5 minutes, if no leaks are signalized, control the joints of the tubes and the quick couplings. 2) Should the problem persist call the technician.
When no fresh oil is being charged into the A/C station.	1) Control the integrity of the fresh oil tank. 2) Call the technician.

## OVERVIEW OVER THE FUNCTIONS “main menus and Under menus”

This overview allow a quick localization of a certain function coming from the main menu.

### Main menu

1.Manual - 2.Half automatic - 3.Automatic- 4.Data banks - 5.Usage – available Gas amount



#### *CAP. 9 GUARANTEE*

The device has a guarantee period of 12 months from the date of delivery. Within the guarantee the compressor and the vacuum pump is not included, because it can occur, that the compressor is being treated with a different oil than the recommended one.

## PERSONALIZED DATABASE

Number Program	Vehicle modell	Vacuum time (Minutes)	Duration of Vacuumtest (Minutes)	Amount of oil (gr)	Amount of gas ( Kg)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
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29					
30					

# DECLARATION OF CONFORMITY CE

COMPANY **SPIN srl** seated in Rimini, Via Casalecchio 35

**DECLARES**

HEREWITH THAT THE FOLLOWING DEVICE:

**A/C SERVICESTATION Mod. “OK CLIMA”**

SERIAL NO \_\_\_\_\_

On which this declaration refers, conforms with the following guidelines:

GUIDELINE FOR THE MACHINE SECURITY AND APPROPRIATE  
MODIFICATIONS

89/392 CEE

91/368 CEE

93/44 CEE

93/68 CEE

GUIDELINE FOR LOW PRESSURE AND APPROPRIATE MODIFICATIONS.

73/23 CEE

93/68 CEE

GUIDELINE OF ELECTRO MAGNETIC CAPABILITY AND APPROPRIATE  
MODIFICATIONS

89/336 CEE

93/68 CEE

-LEGAL REPRESENTATIVE  
Ing. Focchi Marco

\_\_\_\_\_