


COOLIUS

Y50A

**A/C Service-Unit for refrigerant R1234yf
with integrated refrigerant analyzer**

Operating Manual

 Original Operating Manual



Introduction

Dear Customer,

Thank you for purchasing this product.

To ensure this condition and ensure safe operation, you must observe these operating instructions!

Read the entire operating instructions before using the machine for the first time. Observe all operating instructions and safety instructions!

All company names and product names are trademarks of their respective owners. All rights reserved.

If you have any questions, please contact the respective service partner of your country *See chapter 9 Contact and support p. 47*

Europa

This machine meets the requirements of valid EU directives.

2014/68/EU (PED)

2006/42/EU

2014/30/EU

2014/35/EU



Australia & New Zealand

RCM compliance



The Declaration of Conformity can be obtained from: www.coolius-ac.com

Reprinting, even in extract, is allowed only after obtaining approval.

We reserve the right to make changes to the product at any time, if we consider them to be in the interest of quality improvement, without prior notice or notification. Figures may be examples, which may differ in appearance from the goods delivered. We also reserve the right to errors, and cannot be held responsible for typographical mistakes. Our general terms and conditions apply.

Contents

1 Important notes on the operating instructions	5
The purpose of this operating manual is:	5
Disclaimer	5
1.1 Important information about refrigerant	6
Safety Classification and information about refrigerant:	6
1.2 Symbols	7
1.3 Intended use	7
2 Important safety instructions	7
2.1 Glossary of terms	7
2.2 General safety rules	8
2.3 Guidelines for handling refrigerants	8
2.4 Safety devices	9
2.5 Not condensable gas discharge	9
2.6 Ventilation Safety System	9
2.7 The work environment	9
3 Use of the machine	10
3.1 Machine description	10
3.1.1 Control panel	10
3.1.2 The machine	11
3.2 Transport lock	12
3.3 Machine handling	12
3.4 On/Off and stopping	12
4 Preparation for the use and settings	13
4.1 Machine start-up	13
Switch on the machine for the first time and activation	13
4.2 Using the printer	14
4.3 Program selection	15
Overview of the menu contents	15
4.4 Download Service data	16
4.5 Setting	18
4.5.1 Machine set-up	18
4.5.2 Time-Date	19
4.5.3 Company data	20
4.6 Automatic Internal flushing	21
4.7 Maintenance messages	21
4.8 Error messages	22
4.9 Refrigerant analyzer error messages	23
4.10 Refrigerant Test	24
4.11 Vessel charge	26
5 Programs	28
5.1 New oil bottle change	28
5.2 Full service	29
5.3 A/C database	31
5.4 Owner DataBase	32
5.4.1 Creation of a vehicle	32
5.4.2 Selection of a vehicle	33
5.4.3 How to modify or delete a saved vehicle	33

5.5	Open program	34
5.5.1	Process setting	34
	Recovery	34
	Nitrogen Pressure Test	34
	Vacuum	36
	A/C system charge	36
5.6	A/C pressure test	37
5.7	A/C flushing (UNLOCK CODE required)	38
6	Maintenance	39
6.1	Operation history	39
6.2	Next service	39
6.3	Counter reset (UNLOCK CODE required)	40
6.4	Filter replacement	40
6.5	Vacuum pump oil replacement	41
6.6	Report	42
6.7	Scale reset	43
	6.7.1 Refrigerant Weight scale	43
	6.7.2 Waste oil weight scale	43
7	Technical features	44
8	Disposal	46
8.1	Storage for long periods	46
8.2	Disposal of used fluids	46
8.3	Disposal of packaging material	46
8.4	Scrapping the old unit	46
9	Contact and support	47
9.1	Service Portal	47

1 Important notes on the operating instructions

COOLIUS Y50A (the machine) has been designed and built to ensure long lasting, high-level operating reliability with maximum safety for user.



This operating manual is part of the machine.

Read carefully before use.

- The user is responsible for the proper use of the machine in accordance with the instructions found in this operating manual.
- The manufacturer cannot be held responsible for damage to persons, animals and/or objects due to improper use different to that illustrated in this instruction manual.
- The manufacturer reserves the right to make technical and aesthetic alterations to the machine without prior notification.

The purpose of this operating manual is:

- To supply the user with all the information needed to use the unit starting from purchase on through to the disposal of this same machine.
- To ensure maximum support for the personnel assigned to the use and the maintenance of the machine.

For any special information or requests for technical assistance or spare parts, please contact the Service partner of your country.

Disclaimer



This manual was created with great care. However, if you notice any omissions or inaccuracies, please inform the service partner of your country in writing.

The manufacturer shall not be liable for technical or typographical errors and reserves the right at any time without prior notice to the product and the instruction manuals make.

The illustrations in this document may differ from the machine actually supplied with this manual.

1.1 Important information about refrigerant



NOTE: All the information here is current as of the date of printing of this manual.



WARNING! The machine is designed exclusively for R1234yf. The design meets all the guidelines of the European standard EN 378:2016

Safety Classification and information about refrigerant:

The refrigerant is classified in Table E.1 (Refrigerants designation) of Annex E (Normative) of the European standard EN 378-1:2008 + A1: 2010 (E) (EN 378-1:2011).

- PROPANE series: 1234yf (2,3,3,3-tetrafluoro-1-propene $\text{CF}_3\text{CF}=\text{CH}_2$)
- Safety group: A2L
- PED fluid group: 1



The refrigerant (R) 1234yf (HFO) is classified FLAMMABLE

The refrigerant can assume different names depending on the manufacturer!



For more information relating to the refrigerant refer to the SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006 (MSDS).

The SAFETY DATA SHEET (MSDS) must be delivered to the operator (s) employee (s) using the machine!

HAZARDS IDENTIFICATION

Classification REGULATION (EC) No 1272/2008 Flammable gases 1

- H220 Extremely flammable gas.
- Gases under pressure Liquefied gas
- H280 Contains gas under pressure; may explode if heated.

DIRECTIVES 67/548/EEC or 1999/45/EC

- F+ Extremely flammable
- R12 Extremely flammable.

Tank label elements REGULATION (CE) N. 1272/2008

Hazard pictograms:

Signal word:

Danger



Hazard statements:

- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.

Precautionary statements:

- P281 Use personal protective equipment as required.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P260 Do not breathe dust/ fume/ gas/ mist/vapours/ spray.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P410 + P403 Protect from sunlight. Store in a well-ventilated place.

DIRECTIVES 67/548/EEC or 1999/45/EC Symbol(s):

R-phrases: R12 Extremely flammable.

S-phrases: S 9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition – No smoking.



1.2 Symbols



This safety alert symbol indicates that this message involves personal safety. Works danger, warning and caution indicate degree of hazard. Death, personal injury and/or property damage may occur unless instructions are followed carefully.



Do not operate this machine if you have not read and understood the following safety items. Read this entire Operating Manual.

1.3 Intended use

The machine is designed solely for use in automobile air-conditioning system maintenance.



CAUTION! *Risk of injury due to improper use.*

This machine is intended for use by Qualified personnel only. Such users must have a knowledge of the basics of refrigeration, refrigeration system, refrigerants and the potential hazards that unit under high pressure can cause.

2 Important safety instructions

The user should follow the “general safety rules”, and use the machine according to the “intended use” and the instructions of this operating manual.

Therefore, the user is not exposed to any risk if the general safety rules reported below are followed with proper use and maintenance of the machine.

2.1 Glossary of terms

- **Machine:** The machine relative to this operating manual.
- **Refrigerant:** Fluid reported on the identification label.
- **A/C system:** Air-conditioning system in the vehicle.
- **External bottle:** New Refrigerant used to fill the internal vessel.
- **Internal vessel:** Refrigerant storage tank.
- **Process:** Execution of an individual function (Ex. Recovery).
- **Cycle:** Execution of more processes.
- **Refrigerant test:** Analysis of the composition of the refrigerant.
- **Recovery:** The recovery of refrigerant in any condition and its storage in a container outside the A/C system, without necessarily undergoing analysis or treatment of any kind.
- **Recycling:** A reduction of the contaminating substances in used refrigerants through oil separation, the recovery of incondensable and their single or multiple passages through elements that enable a reduction in humidity, acidity and gasses.
- **Disposal:** Recovery of refrigerant to store it for subsequent distribution or disposal.
- **Vacuum:** Phase in which air and moisture are evacuated from an A/C system solely by means of a vacuum pump.
- **Oil charge:** Introduction of oil inside an A/C system for the purpose of maintaining the amount of oil specified by the manufacturer.
- **UV dry charge:** Introduction of UV dye inside an A/C system in order to detect possible leaks by means of a UV lamp.

- **Refrigerant charge:** Phase during which refrigerant is introduced into an A/C system in the amount specified by the manufacturer.
- **Flushing:** at the purpose to clean the A/C system or components, liquid refrigerant is flushed through it, in order to do so a special device and adapters are needed.
- **Nitrogen pressure test:** Introduction of nitrogen inside an A/C system in order to detect possible leaks

2.2 General safety rules

- This machine is intended for use by QUALIFIED PERSONNEL only. Such users must have a knowledge of the basics of refrigeration, refrigeration system, refrigerants and the potential hazards that unit under high pressure can cause.
- It's essential to supervise the machine at all times.
- DO NOT modify the safety devices
- DO NOT use external tanks or other storage tanks that have not been type-approved or that lack safety valves.
- DO NOT use the machine near open flames and hot surfaces. At high temperatures, the refrigerant decomposes, releasing toxic and chemical substances that are hazardous for users and the environment.
- It's essential to use only the refrigerant indicated on the identification label. Mixtures with other types of refrigerant will seriously damage the cooling and refrigeration system, as well as the machine.
- Gloves and goggles should be worn - contact with the refrigerant can cause blindness and other physical injury to the user.
- Avoid inhalation of vapours from the refrigerants and contact of the refrigerant with skin.
- Do not switch on the machine unless the machine is going to be used immediately. Cut off the electrical power supply prior to long intervals in which the machine will not be used.
- **Attention:** Ensure that all valves are closed before making connections between the machine and an A/C system or an external tank.
- **Attention:** Ensure that the process has been completed and that all valves are closed before disconnecting the machine.
- **Attention:** All of the flexible hoses may contain refrigerant under high pressure. Exercise extreme caution when disconnecting the service hoses.
- **Attention:** The machine and A/C system in vehicles containing refrigerant should not be tested with compressed air. Some mixtures of air and refrigerant have proven to be combustible at high pressure levels. These mixtures are potentially hazardous and there is a risk of fire and explosions that can cause damage to property and personal injury.
Additional medical and safety information can be obtained from the manufacturers of the oils and refrigerants.

2.3 Guidelines for handling refrigerants

Precautions for Refrigerant Storage

The refrigerant to be removed from a system must be handled carefully in order to prevent or minimise the possibilities of different refrigerants mixing.

The tank used for storing refrigerants must be assigned to specific refrigerants to avoid different refrigerants mixing

Recycling Capacity

The recycling machine's filter system should be replaced regularly in order to maintain the efficiency of the recycling machine

General Notions

Before re-introducing refrigerant into the system, the system itself must be evacuated and cleaned.

In order to be sure that the system is free of contaminating agents before introducing the refrigerant, all the procedures described in this instruction manual must be followed.

Clean and maintain the machine regularly, especially when highly contaminated refrigerant is used: it is extremely important that contamination from the previous operation is not transferred to subsequent operations.

2.4 Safety devices

The machine is equipped with the safety devices required from the European Directives:

- Electric safety switch
- Safety valve



CAUTION! *Danger of injury due to manipulation.*
DO NOT MODIFY THE SAFETY DEVICES.

2.5 Not condensable gas discharge

A not condensable gas discharge valve is installed to allow these gasses to be released.

The not condensable gas discharge valve could generate noises.



WARNING! *Risk of injury from escaping gases under high pressure.*
Make sure that you never come in contact with the drain valve!

2.6 Ventilation Safety System

The machine is designed for the refrigerant 1234yf classified as flammable.

For this reason, the machine is equipped with a ventilation security system which has the task, in case of leakage of the circuit, to avoid the formation of pockets of refrigerant.

It is forbidden to obstruct the inlet grid of the fan.

The user must monitor the efficiency of the ventilation security system and in case of anomaly of the same must switch off the machine.

In addition, the internal vessel is equipped with a normally closed electric valve which is activated only when the machine is ON.

2.7 The work environment

- The machine must be used in well ventilated environments (at least 4 changes of air per hour).
Protect the machine against atmospheric agents (such as avoiding direct exposure to sunrays, rain, etc...).
- The unit has been designed for use at a maximum altitude of 1000 m above sea level, within a temperature range of +10 and +49°C and with a maximum humidity of 50% at +40°C.
- Operate in sufficiently lit conditions.

3 Use of the machine

3.1 Machine description

3.1.1 Control panel

1. Display
2. START button / LED
3. STOP button / LED
4. Information button (i)
5. Cancel button (X)
6. COOLIUS SELECT with ENTER button / LED
7. Right button / LED
8. Left button / LED
9. Printer
10. USB-Port
11. Mushroom safety switch

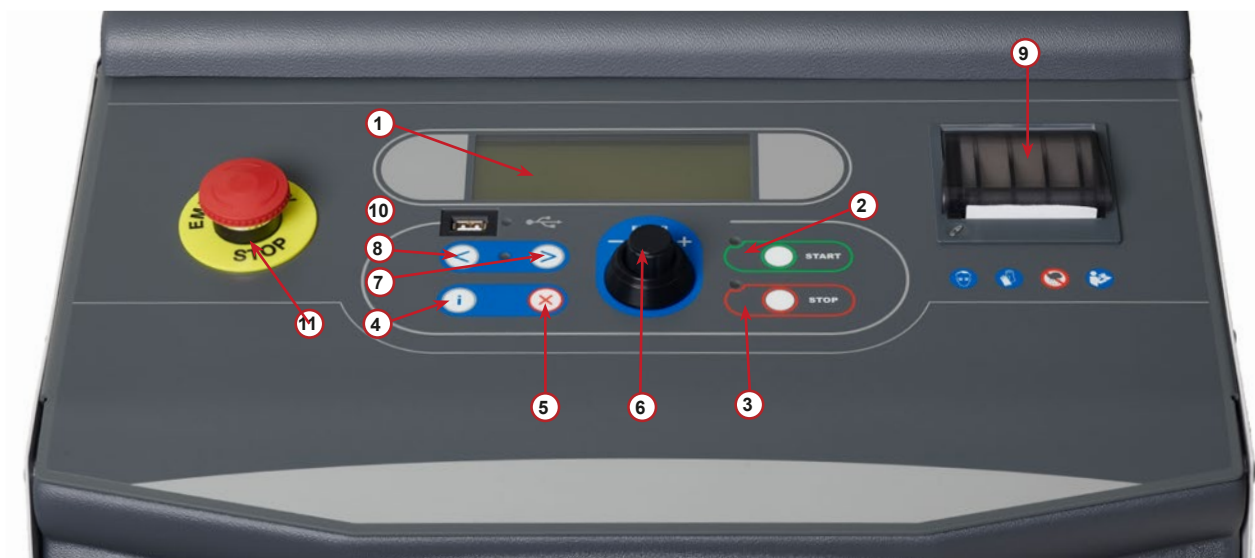


fig. 001 Control panel

3.1.2 The machine

- 1 LP pressure indicator
- 2 HP pressure indicator
- 3 Internal vessel pressure gauge
- 4 Printer
- 5 Front cover
- 6 Rear wheel
- 7 Front wheel with brake
- 8 Drier filter
- 9 Main switch
- 10 Bottle for PAG oil 250 ml
- 11 Storage box for accessories
- 12 Bottle for POE oil 250 ml
- 13 Bottle for UV leak detection additive 100 ml
- 14 Drained oil sealed bottle 250 ml
- 15 LP quick coupling
- 16 HP quick coupling
- 17 LP hose
- 18 HP hose
- 19 By-pass
- 20 Front pocket
- 21 Scale lift knob
- 22 Inlet port for pressure test (Max 12 bar)
- 23 Ventilation Security System inlet grid
- 24 Mushroom safety switch
- 25 External filter for Refrigerant analyzer
- 26 Refrigerant analyzer
- 27 Original filter of the Refrigerant analyzer

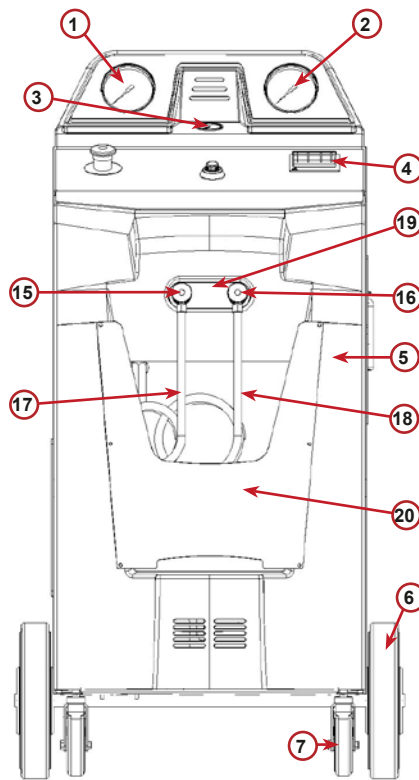


fig. 002 Front view

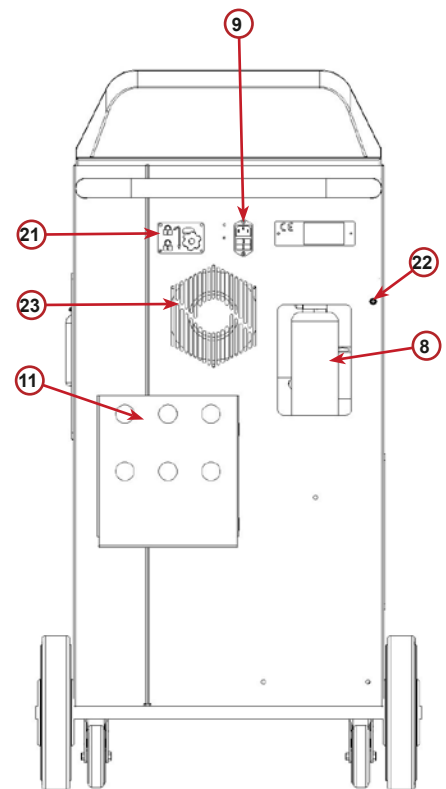


fig. 003 Rear view

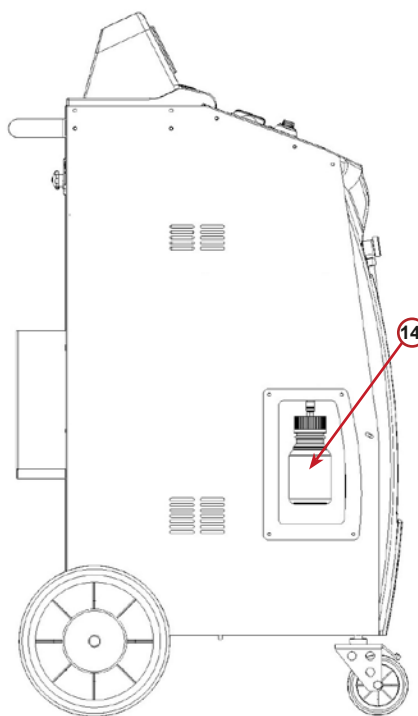


fig. 004 Left view

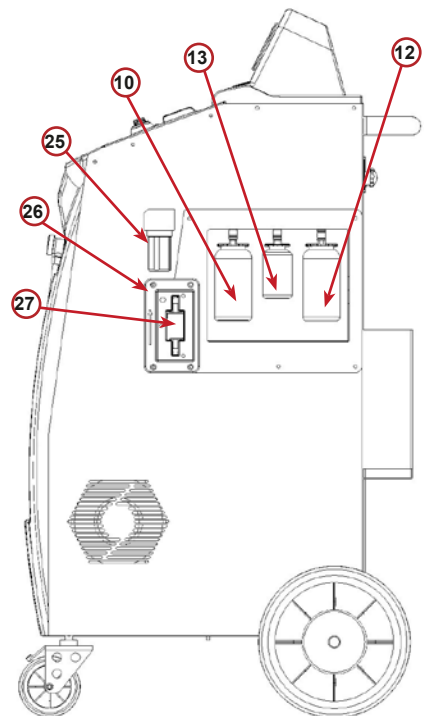
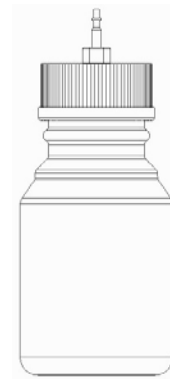


fig. 005 Right view



ATTENTION! *Damage to the machine.
The drained oil bottle is sealed!
Close the bottle by screwing the cap completely!
A wrong fitting may cause a malfunction of the unit!*



3.2 Transport lock

The transport lock secures the scale of the internal refrigerant vessel and protects it from damage during transport..

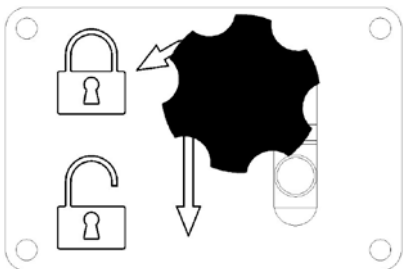


fig. 009 Scale locked (transport position)

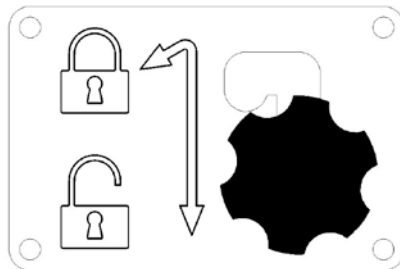


fig. 010 Scale unlocked (working position)



ATTENTION! *Damage of the scale during transport
The transport lock must be locked before transporting the A/C service unit.*

Unlocking

Unscrew the star grip screw of the transport lock.

Raise the star grip screw, then move to the right and down to the unlocked position.

Retighten the star grip screw slightly.

Locking

Unscrew the star grip screw.

Move the star grip screw upwards and then to the left to the locked position.

Retighten the star grip screw slightly.

3.3 Machine handling

In spite of the fact that the heaviest components have been assembled on the base in order to lower the centre of gravity, it has not been possible to eliminate the risk of overturning completely.

The machine is moved on the four wheels.

On rough ground, the machine must be moved by tilting it and balancing the weight on the two rear wheels.

3.4 On/Off and stopping

Start-up: Move the main switch to the ON position (I)

Stopping: Move the main switch to the OFF position (0)



ATTENTION! *Damage to the machine.
Do not switch off the machine by unplugging the mains plug!*

4 Preparation for the use and settings

4.1 Machine start-up

Press the Power Switch (I) to turn on the Machine.

The ventilation security system starts.

Switch on the machine for the first time and activation

Select the display language

Turn **COOLIUS SELECT** to select the language, then confirm by **ENTER**.

After selecting the language, you have two possibilities to work with the machine.

Select :

Language 03

□ □ ■ □ □ □ □ □ □ □ □ □ □ □ □ □ □

1. Demo Mode

You can now activate the machine or work in demo mode.

NOTE: All functions will be full working except for the TIME - DATE menu, that is not available.

1. Press **STOP** to use the machine in DEMO MODE. (The machine start-up and skip the activation procedure).
 - The display shows the number of days before the activation will be necessary to use the machine.
2. Press **START** to go to Stand-by mode.

"START" to activate
the machine.

www.coolius-ac.com

Machine is working
now in DEMO MODE!
Day(s) left

10

2. Machine activation

1. Press **START** to activate the machine.

NOTE: After 10 days, starting from the first switch on, the display will show only this screen at the start-up.

2. To perform the activation, go to website www.coolius-ac.com or call your service partner and request the UNLOCK CODE related to the Serial Number written on the display (in this case, the Serial Number is AA000000).
3. Press **START** to continue with activation or press **STOP** to skip the activation procedure and start-up the machine in DEMO MODE.

Get UNLOCK CODE
register:

AA000000

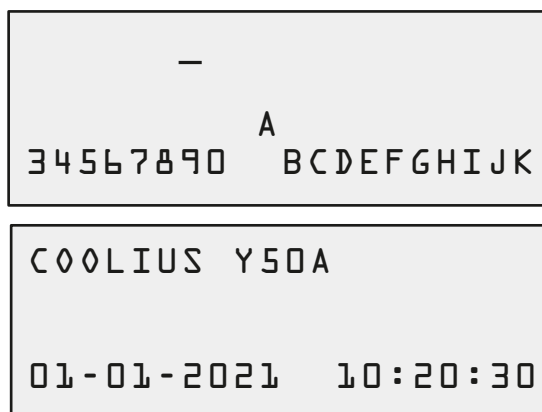
www.coolius-ac.com

NOTE: **STOP** key is available only if there is at least one day left for DEMO MODE, otherwise the activation is compulsory and only the **START** key is available.

To continue with the activation it is required the knowledge of the UNLOCK CODE.

4. Enter the UNLOCK CODE using **COOLIUS SELECT**.
Once done, confirm by **START**.

- If the UNLOCK CODE is wrong, repeat the procedure just described.
- If the UNLOCK CODE is correct, press **START** to confirm. The machine is activated and shows the Stand-by mode.



4.2 Using the printer

The machine has a built-in roll-up printer which can be used to print the vehicle data and the results of the services performed.

- Paper width: 58 mm
- Diameter: 40 mm
- Paper feed ①

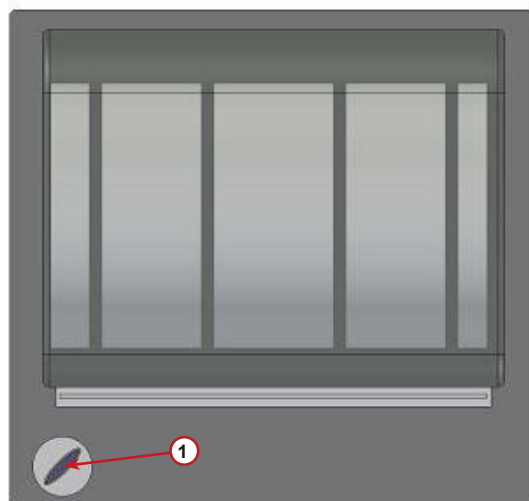


fig. 011 roll-up printer

Before a process:

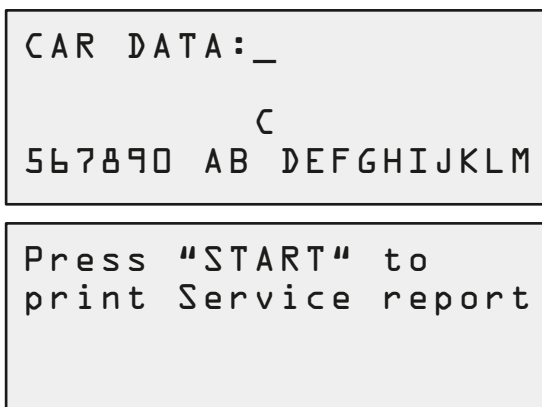
Turn **COOLIUS SELECT** to select the character then confirm by **ENTER**.

Max 20 characters (plate, chassis, etc...).

At the end of a process:

Press **START** key to print.

Press **STOP** key to end.



4.3 Program selection

Press **i** key to check the refrigerant available.

Press **i** key to come back in stand-by mode.

Press **ENTER** to select a menu item.

.

Turn **COOLIUS SELECT** to select the required program.

The symbol **■** shows the current position of the cursor.

The number of symbols **□** shows the number of available menu points of this level.

Available quantity:
Refrigerant g.//////

01-01-2021 10:20:30

Full Service

□ □ ■ □ □

Overview of the menu contents

1. OTHER SELECTIONS

- SERVICE
- A/C PRESSURE TEST
- A/C FLUSHING
- NEW OIL BOTTLE CHANGE
- MACHINE SET-UP
- TIME-DATE
- COMPANY DATA
- SCALE RESET
- MAINTENANCE
- REFRIGERANT TEST

2. A/C DATABASE

3. FULL SERVICE

4. OPEN PROGRAM

5. VESSEL CHARGE

4.4 Download Service data

Starting from the first switch on of the new year, the display shows:

```
Download
SERVICE DATA!
```

Press **STOP** to by-pass or **START** to download.

NOTE: When the service data of two different years are stored in the machine and current year is different from the two years saved, it is necessary to delete the data of at least one of the two years in order to continue with the start-up of the machine.

If **START** is pressed, then the display shows:

Type the password: **200200**

NOTE: This password can be also used in
OTHER SELECTIONS > SERVICE

```
—
A
34567890  BCDEF GHIJK
```

Then the display shows:

Turn **COOLIUS SELECT** to select the year to be downloaded then press **START** to confirm, the display shows:

```
Year                2020
```

Insert an empty USB stick.

NOTE: The file-system of the USB stick must be FAT32, if not please format it.

```
Insert a USB stick!
```

The download starts when the stick is detected and the display shows:

The last line of the screen indicates the progress of the downloading process.

```
Downloading!

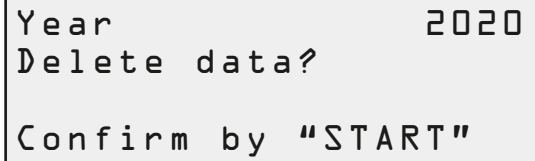
Please wait!
Record                11/46
```

NOTE: Please do not remove the USB stick during the process to avoid damages to the stick and to the machine.

When the download is completed, the display shows:

```
Download
Completed!
Remove USB stick
```


Remove the USB stick, then the display shows:

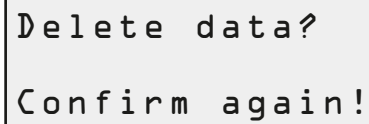


Year 2020
Delete data?
Confirm by "START"

Press **START** to delete the data or press **STOP** to exit and keep the data stored in the machine.

IMPORTANT NOTE: Before deleting data, make sure that the downloaded file is kept in a safe place. The erasing process is not reversible!!

If **START** is pressed, the display shows:



Delete data?
Confirm again!

Press **START** key to confirm or **STOP** to go back to previous screen.

If **START** is pressed, the display shows:



Please wait!

Wait a few seconds. The recorded data for the selected year is now deleted.

4.5 Setting

4.5.1 Machine set-up

The procedure allows to modify the settings of the machine.

Turn **COOLIUS SELECT** to select MACHINE SET-UP. Press **ENTER** to confirm.

Recovery data on service ticket:

- 1 The recovery data are reported on the ticket (recovered amount of refrigerant and oil).
- 0 The recovery data are not printed.

Turn **COOLIUS SELECT** to select 1 or 0. Press **ENTER** to confirm. The next menu item is displayed.

```
Print recovery
data?
                      1
```

Refrigerant residual check:

The value is used as default parameter in:

A/C DATABASE and FULL SERVICE

Turn **COOLIUS SELECT** to set the value. Press **ENTER** to confirm. The next menu item is displayed.

```
Refrigerant residual
check
                      min.    2
```

Leak test:

The value is used as default parameter in:

A/C DATABASE and FULL SERVICE

Turn **COOLIUS SELECT** to set the value. Press **ENTER** to confirm. The next menu item is displayed.

```
Leak test    min.    2
```

Fresh oil:

The value is used as default parameter in:

A/C DATABASE and FULL SERVICE

Turn **COOLIUS SELECT** to set. Press **ENTER** to confirm. The next menu item is displayed.

```
Oil                      ml.  10
```

UV Dye:

The value is used as default parameter in:

A/C DATABASE and FULL SERVICE

Turn **COOLIUS SELECT** to set the value. Press **ENTER** to confirm. The next menu item is displayed.

```
UV Dye                      ml.   6
```

NOTE: Set 0 to bypass the process

Hoses length:

Turn **COOLIUS SELECT** to set the value. Press **ENTER** to confirm. The next menu item is displayed.

```
Set the HP hose
length (red hose)
cm.                      300
```

Language:

Turn **COOLIUS SELECT** to select the language.

Press **ENTER** to confirm.

The next menu item is displayed.

```
Select:
Language 03
```

Unlock Code:

These eight digits are necessary to obtain the UNLOCK CODE for the counter reset. Request the new UNLOCK CODE on the website www.coolius-ac.com or call your service partner.

Press **ENTER**, then the next menu item is displayed.

```
UNLOCK CODE:
BB111111
Serial Number:
AA000000
```

Printer:

- 1 Printer online (Activated).
- 0 Printer offline or not installed.

Turn **COOLIUS SELECT** to select 1 or 0.

Press **ENTER** to confirm.

The next menu item is displayed.

```
Optional
```

```
Printer          1
```

Nitrogen Pressure Test:

- 1 Automatic Nitrogen Pressure Test activated and automatically performed in the following programs:
A/C DATABASE and FULL SERVICE
- 0 Automatic Nitrogen Pressure Test not activated.

Turn **COOLIUS SELECT** to select 1 or 0.

Press **ENTER** to confirm. The next menu item is displayed.

```
Nitrogen Press.Test
```

```
AUTO
                               1
```

Turn **COOLIUS SELECT** to set the testing time, then press **ENTER** to confirm.

Turn **COOLIUS SELECT** to set the maximum pressure drop value allowed to pass the test, then press **ENTER** to confirm.

The next menu item is displayed.

```
Nitrogen Press.Test
```

```
                                min.  3
Δ Pressure                    mb.350
```

Automatic internal flushing:

- 1 Automatic internal flushing activated (see Chap. 6.5)
- 0 Automatic internal flushing not activated.

Turn **COOLIUS SELECT** to select 1 or 0, then confirm by **ENTER**.

```
Automatic internal
flushing.
```

```
1
```

Press **STOP** to exit.

4.5.2 Time-Date

Turn **COOLIUS SELECT** to select TIME - DATE.

Press **ENTER** to confirm.

```
Time:          10:20:30
```

Turn **COOLIUS SELECT** to modify the blinking value.

Press **ENTER** to confirm. The next value blinks.

```
Date:          01/01/21
```

Press **START** key to confirm when the setup is completed.

4.5.3 Company data

Turn **COOLIUS SELECT** to select COMPANY DATA.

Press **ENTER** to confirm.

5 lines are available:

- 1 _____ Company name (Workshop)
- 2 _____ Address (road, etc..)
- 3 _____ City
- 4 _____ Phone
- 5 _____ FAX

The above setting is an example only.

1	_____
	C
5 6 7 8 9 0	A B D E F G H I J K L M

NOTE: *These lines are reported on the service ticket.*

Procedure:

- Turn **COOLIUS SELECT** to select the character.
Press **ENTER** to confirm, then the character is written on the blinking cell of first line.
- If required, press **X** key to delete.
- It is possible to move in the line by **LEFT / RIGHT**
- Turn **COOLIUS SELECT** to select the next character.
Press **ENTER** to confirm, then the character is written on the blinking cell of first line.
- Press **START** key to confirm the setting.
The display shows the following line.
- Press **STOP** when the setup of the 5 lines is completed.

4.6 Automatic Internal flushing

The machine is equipped with two oil bottles (one for the PAG oil and one for POE oil). Due to low compatibility between the two kinds of oil, it is strongly suggested to avoid the mixing between the two.

In order to avoid contamination, the Automatic Internal flushing function performs a machine cleaning phase at the end of each process involving the oils.

This function can be deactivated if sure that only one type of oil is used with the machine (also in case of recovery!).



IMPORTANT NOTE: *Excluding this function may cause anomalies in the A/C system and could create hazardous situations for the user (electric shocks on the A/C compressor unit)*

At the end of Vessel Charge, A/C Pressure Test, A/C Data-Base, Full Service, Open Program (only the ones including “Recovery” and/or “A/C System Charge”), the display shows:

Perform the instruction, then press **START** key to confirm.

At the end of the process:

Press **STOP** key to exit.

Join HP/LP couplers
to the stands and
Open the valves

Internal flushing
end
Machine ready!

4.7 Maintenance messages



NOTE: Maintenance of the vacuum pump must be performed every 3000 minutes or at the latest after one year of operation, whichever is sooner.

The following messages can be shown at the start-up of the machine:

Notice: “MAINTENANCE WILL EXPIRE SOON!” or
“MAINTENANCE EXPIRED!”

Maintenance will expire soon!

Press **STOP** to continue with the start-up of the machine.

Maintenance will
expire soon!
Call for service

Maintenance expired!

1. Press **STOP** key when MAINTENANCE EXPIRED! message is shown.

Maintenance expired!
UNLOCK CODE required



2. Then the display shows:

Press **STOP** key and hold it for 5 seconds to continue with the start-up of the machine.

```
Get UNLOCK CODE
register:
BB111111
www.coolius-ac.com
```

NOTE: See chapter 6.3 Counter reset (UNLOCK CODE required) p. 40 to reset the maintenance counter.

4.8 Error messages

No	Error message	Description
A1	ERROR	A1 Scale blocked or faulty (<i>See chapter 3.2 Transport lock p. 12</i>).
A3	ERROR	A3 Scale is loaded and is not possible to set the zero point. Unload the weight scale (<i>See chapter 3.2 Transport lock p. 12</i>).
C1	ERROR	C1 Recovery process anomaly or compressor faulty
C5	ERROR	C5 Low pressure quick coupler (LP) is not connected to the A/C System during the flushing process.
F1	ERROR	F1 The pressure is too low to complete the A/C System Charge (in case of A/C System Charge performed by "HP PORT" only and LP quick coupler is not connected).
	ERROR! Overpressure in recovery process!	High pressure switch activated. Press STOP then wait 20-30 min. If the message appears again, please contact SERVICE CENTER.
	Vessel full! Please wait!	Maximum refrigerant quantity reached! Reduce the refrigerant quantity in the internal vessel.
	Leakage! "START" to by-pass	If after a few minutes the minimum vacuum value is not reached. Possible causes: defective A/C system, etc...
	Insufficient vacuum for oil/UV charge! "START" to by-pass	The vacuum value is not enough to guarantee the process. Possible causes: defective A/C system, air in the bottles, etc... Press START to by-pass the process and go to charge process.
	Insufficient refrigerant! Charge the vessel.	The refrigerant quantity is below the minimum quantity required. Perform "Vessel charge".
	Last internal flushing process not completed	<p>Internal flushing of last process was not correctly completed. Press START key to perform it again.</p> <div>  <p>ATTENTION! The following procedure is STRONGLY DISCOURAGED! Please read <i>See chapter 4.6 Automatic Internal flushing p. 21</i> and PROCEED AT YOUR OWN RISK!</p> </div> <div>  <p>NOTE: Is possible to skip the cleaning process by keeping pressed down the STOP key for 5 seconds.</p> </div>

4.9 Refrigerant analyzer error messages

No	Error message	Description
0	ERROR Contact SERVICE CENTER	The refrigerant analyzer is not working. Please contact SERVICE CENTER.
1	ERROR Perform the test again?	Unstable air or gas readings. Press START to try to perform the test again. If the message appears again, please move the machine to another area then try again.
2	ERROR Perform the test again?	Excessively high air or gas readings. Press START to try to perform the test again. If the message appears again, please move the machine to another area then try again.
3	ERROR Perform the test again?	Air calibration failed. Press START to try to perform the test again. If the message appears again, please move the machine to another area then try again.
4	ERROR Temperature condition out of range!	Environmental conditions out of the analyzer operating range. Please move the machine to another area then try again.
5	ERROR Excess of air or low refrigerant flow.	Large amount of air in the gas sample or no refrigerant flow. Check that the external tank valve is open.
6	ERROR Air sensor expired! Contact SERVICE CENTER	The air sensor is expired and must be replaced in order to use the refrigerant analyzer. Replace the air sensor or contact SERVICE CENTER.
7	ERROR Perform the test again or contact SERVICE CENTER	The gas pressure is out of range. Please contact SERVICE CENTER.
17	ERROR Contact SERVICE CENTER	Refrigerant analyzer not working. Please contact SERVICE CENTER.
	Not enough pressure for Refrigerant Quality Test	Not enough refrigerant to perform the test. Please check the LP and HP gauges.

4.10 Refrigerant Test

The machine has a built-in refrigerant analyzer SAE J2927 which is manufactured by NEUTRONICS Inc.



ATTENTION!

Maintenance and servicing of the Refrigerant Analyzer must be performed by authorized personnel only!



NOTE: The refrigerant test is automatically performed when the recovery of refrigerant is part of the process selected (e.g. FULL SERVICE, RECOVERY, RECOVERY / VACUUM). This avoids the use of non-compliant refrigerant fluid.

It is also possible to perform the Refrigerant Test on a refrigerant tank or on an A/C system as a single process.

Connect the HP or LP hose to the refrigerant tank or to the A/C system that has to be tested.

1. Turn **COOLIUS SELECT** to select OTHER SELECTIONS. and press **ENTER** to confirm.

2. Turn **COOLIUS SELECT** to select REFRIGERANT TEST.

Press **ENTER** to confirm.

Refrigerant Test

□□□□□□□□■

3. Press **START** key to confirm.

Refrigerant Test

Confirm by "START"



MESSAGE: If the equipment senses a lower pressure than the minimum value for the process.

Please check the pressure on HP/LP gauges.

Press **STOP** to end.

Not enough pressure
for Refrigerant
Quality Test

If the pressure is above the minimum pressure value required to perform the test, then the process starts.

Refrigerant Test
in process.
Please wait!

4. At the end of the test, the result of the analysis is shown:

This screen gives the composition of the tested gas in percentages of R1234yf, R134a, hydrocarbon (HC) and unknown compounds (UNK).

Also the presence of air in the analyzer chamber is given.

R1234yf	100.0 %
R134a	0.0 %
UNK	0.0 %
HC	0.0 %
Air	0.5 %



ATTENTION!

*If the TEST is FAILED, **switch off** the machine, move it in a ventilated area and then empty the service hoses.*

TEST FAILED!
Disconnect service
hoses then empty
the hoses.



ATTENTION! During the cleaning operation, take all the necessary safety precautions!.

Contact with the refrigerant can cause blindness and other physical injury to the user! Always use goggles and gloves!



IMPORTANT NOTE: Ensure that the refrigerant contained by the service hoses is transferred into a specific container and not discharged in the environment!

5. If the test is PASSED, perform the instruction on the display and then press **STOP** to continue.

TEST PASSED!
Disconnect service
hoses from external
tank or A/C system

6. Press **START** key to confirm.

Confirm by "START"

7. Wait the end of the refrigerant recovery process.

Refrigerant recovery
from the
service hoses

8. Press **START** to print the service report or **STOP** to exit.



NOTE: The service ticket will report the composition of the tested gas only if the REFRIGERANT TEST menu is performed.

If another menu is selected and the refrigerant test is performed automatically, then the composition of the gas will be printed only in case of failed test.

Press "START" to
print Service Report

4.11 Vessel charge

The equipment may not contain enough refrigerant to run. The available quantity could be negative (Es: -500 g.) It will be necessary to add new refrigerant into the internal vessel before the use (at least 3 or 4 Kg).

1. Turn **COOLIUS SELECT** to select **VESSEL CHARGE**. Press **ENTER** to confirm.



NOTE: The message is shown before processes.

WARNING!
Verify Oil/UV
quantity in the
bottles.

2. Connect the LP (BLUE) or the HP (RED) hose to a new tank of refrigerant. If available, open the liquid tank valve (RED).
Otherwise turn the tank up-side-down.

Connect LP or HP
hose to ext. tank.
Open the valve
liquid side.

3. Turn **COOLIUS SELECT** to set the value.
 - Minimum: 800 g.
 - Maximum: the value shown by the display.
4. Press **ENTER** to confirm..

Set the quantity.

g.////////

5. Press **START** key to confirm

Confirm by "START"



MESSAGE: If the equipment senses a pressure lower than the minimum value for the process.

Check:
Ext. tank empty or
tank valve closed.

The process starts.

Vessel charge in
process.
Pressure mb.
Refrigerant g.////////



MESSAGE: *If the equipment senses a pressure lower than the minimum value for the process.*

- Replace the external tank, then press **START** key to confirm.
- Press **STOP** key to complete the process.

Check:
Ext. tank empty or
tank valve closed.

The process is completed.

6. Close the tank valve and disconnect the red hose from the tank.

Press **START** key to confirm.

Vessel charge end.

Close the external
tank valve.

Refrigerant recovery
from the
service hoses

7. Press **STOP** key to end.

The machine now performs a self-cleaning process
See chapter 4.6 Automatic Internal flushing p. 21
if “Automatic internal flushing” is activated under
MACHINE SET-UP *See chapter 4.6 Automatic Internal
flushing p. 21.*
Otherwise it goes to stand-by mode.

Vessel charge end.

g./////

5 Programs

5.1 New oil bottle change



NOTE: A/C System can be damaged.

If it is required to change the kind of compressor oil, the A/C machine will require flushing to prevent cross contamination of oils. This procedure cleans the hoses and pipes prior to new oil injection.

1. Turn **COOLIUS SELECT** to select OTHER SELECTIONS.

Press **ENTER** to confirm.

2. Turn **COOLIUS SELECT** to select NEW OIL BOTTLE CHANGE.

Press **ENTER** to confirm

New oil bottl.change

□□□■□□□□□□

3. Turn **COOLIUS SELECT** to select the bottle that has to be replaced (PAG oil or POE oil).

Press **ENTER** to confirm.

Select oil type:

PAG oil

4. Replace the oil bottle with the new oil bottle.

Press **ENTER** to confirm.

Replace oil bottle
with the new oil
bottle for specific
application.

5. Perform the instruction.

Press **START** key to confirm.

Join HP/LP couplers
to the stand and
open the valves!
Confirm by "START"

6. The machine starts.

Internal flushing
Wait!

If the couplers are not joint to the stand or the coupler valves are not closed, message:

Press **START** key to confirm.

The machine starts. The process cleans the complete unit included the service hoses.

Join HP/LP couplers
to the stand and
open the valves!
Confirm by "START"

At the end:

Press **STOP** key to exit.

The machine is ready.

Internal flushing
end.

5.2 Full service

1. Press **ENTER** to go to selection menu (if in Stand-by mode).
2. Turn **COOLIUS SELECT** to select FULL SERVICE.
3. Press **ENTER** to confirm.

Full service

□ □ ■ □ □

4. Turn **COOLIUS SELECT** to set the amount of refrigerant to be charged into the A/C system.
 - Minimum: 50 g.
5. Press **ENTER** to confirm.

Refrigerant g. 500

6. Turn **COOLIUS SELECT** to set AUTOMATIC / MANUAL / NO
Press **ENTER** to confirm.

Oil/UV charge

Automatic

If AUTOMATIC or MANUAL is selected, then the display shows:

7. Turn **COOLIUS SELECT** to set PAG Oil or POE Oil
Press **ENTER** to confirm.

Select Oil Type

PAG Oil

If Automatic is selected, then the display shows:

8. Turn **COOLIUS SELECT** to set oil quantity, confirm by **ENTER**, then set UV quantity and press **ENTER** to confirm.

PAG Oil	ml.	—
UV dye	ml.	—

9. Turn **COOLIUS SELECT** to set (usually HP)
HP PORT / LP PORT / HP/LP PORTS

Press **ENTER** to confirm.

Charge A/C system by

HP PORT

Equipment with printer: [See chapter 4.2 Using the printer p. 14](#)

10. Press **START** key to confirm.
The equipment performs all the processes.
 - Refrigerant test.
 - Recovery.
 - Residual refrigerant check.
 - Used oil drain process.
 - Nitrogen Pressure test
(if Nitrogen Press.Test AUTO is set to 1 in MACHINE SET-UP).
 - Vacuum, Leak test.
 - New oil charge.
 - UV Dye charge.
 - Refrigerant charge.

Confirm by "START"

11. At the end of the processes,
start the engine and A/C system, then check the pressures.

Verify the A/C
system pressures.

12. At the end of the verification, press **STOP** key to end.
Perform the instruction.

Disconnect the HP/LP
service hoses from
the A/C system.

13. Press **START** key to confirm.

At the end, all the process values are reported on the display.

Refrigerant recovery
from the
service hoses

Recovery

Refrigerant	g.	////
Oil	ml.	//

Vacuum

mb. ///

14. Press **STOP** key to end.
Equipment with printer: [See chapter 4.2 Using the printer p. 14](#)
15. Press **START** key to print or **STOP** key to skip.

A/C system charge

Quantity	g.	////
----------	----	------

At the end The machine performs a self-cleaning process [See chapter 4.6 Automatic Internal flushing p. 21](#) if "Automatic internal flushing" is activated under MACHINE SET-UP [See chapter 4.6 Automatic Internal flushing p. 21](#).
Otherwise it goes to stand-by mode.

5.3 A/C database

The memory contains the data of the main cars on the market.

1. Press **ENTER** to go to selection menu (if in Stand-by mode).
2. Turn **COOLIUS SELECT** to select A/C DATABASE
Press **ENTER** to confirm.

A/C DataBase

□ ■ □ □ □

3. Turn **COOLIUS SELECT** to select the brand.
Press **ENTER** to confirm.

Hyundai

4. Turn **COOLIUS SELECT** to select the model.
Press **ENTER** to confirm.

Hyundai
i30

5. Turn **COOLIUS SELECT** to select the version of the vehicle.
Press **ENTER** to confirm.

Hyundai
i30

2012-

6. Refrigerant quantity and oil viscosity are shown.

Hyundai
i30
PAG FD46XG ml. 150
g. 500

7. For more information, press **i** key.

Press **i** key to go back.

Please refer to
the car manufacturer
technical
specifications!

8. Press **START** key to confirm.
The program is performed like [See chapter 5.2 Full service p. 29.](#)

Hyundai
i30
PAG FD46XG ml. 150
g. 500

The display shows:

9. Turn **COOLIUS SELECT** to set PAG 0IL or P0E 0IL.

Press **ENTER** to confirm.

Select Oil Type

PAG 0il

10. Turn **COOLIUS SELECT** to set (usually HP)
HP PORT / LP PORT / HP/LP PORTS

Press **ENTER** to confirm.

```
Charge A/C system by  
  
HP PORT
```

At the end The machine performs a self-cleaning process [See chapter 4.6 Automatic Internal flushing p. 21](#) if “Automatic internal flushing” is activated under Machine Set-up [See chapter 4.6 Automatic Internal flushing p. 21](#).

Otherwise it goes to stand-by mode.

5.4 Owner DataBase

In the OWNER DATABASE, you have the ability to create your own, frequently used vehicle data.

5.4.1 Creation of a vehicle

1. Enter in A/C DATABASE.

Turn **COOLIUS SELECT** counter clockwise, the display shows:

Confirm by **ENTER**.

NOTE: The display could show PLEASE WAIT! for a very short time.

```
Owner DataBase
```

2. The display shows:

Confirm by **ENTER** to create a new vehicle or **STOP** to exit.

```
New Model?
```

3. Type the brand of the vehicle.

NOTE: The field cannot be empty and a space is not allowed as a first character.

4. When the brand is filled, press **START** to confirm.

```
Brand:
```

```
█  
A  
34567890 BCDEFGHIJK
```

5. Type the model of the vehicle.

NOTE: The field cannot be empty and a space is not allowed as a first character.

6. When the model is filled, press **START** to confirm.

```
Model:
```

```
█  
A  
34567890 BCDEFGHIJK
```

7. Set the quantity of refrigerant by **COOLIUS SELECT** (from 50 to 5.000). Press **START** to save.

The record is saved in alphabetical order.

```
Quantity:
```

```
g. 500
```


5.4.2 Selection of a vehicle

1. Enter in A/C DataBase.

Turn **COOLIUS SELECT** counter clockwise, the display shows:

```
UserBrand
UserModel
INFO                                g . 500
```

2. Turn **COOLIUS SELECT** to select the desired vehicle, then press **ENTER** to use it, or **STOP** to exit.

```
Automatic
```

3. Turn **COOLIUS SELECT** to choose between:

- **AUTOMATIC:** The machine performs a complete process using the default values for oil and UV (set in MACHINE SET-UP).
- **MANUAL:** The machine goes to the complete process set-up
[See chapter 5.5 Open program p. 34](#)
RECOVERY / NITROGEN PRESS. TEST
/ VACUUM / A/C SYSTEM CHARGE.

NOTE: Set the Nitrogen test time to 0 minutes to bypass the pressure test.

4. Press **ENTER** to confirm or **STOP** to go back to the Owner DataBase list of vehicles.

5.4.3 How to modify or delete a saved vehicle

1. Enter in A/C DATABASE.

Turn **COOLIUS SELECT** counter clockwise, the display shows:

```
UserBrand
UserModel
INFO                                g . 500
```

2. Press **i** (INFO) key, then the display shows:

```
Modify
```

3. Turn **COOLIUS SELECT** to select between **MODIFY** and **DELETE**, then press **ENTER** to confirm or **STOP** to go back to the Owner DataBase list of vehicles.

- **MODIFY:** Overwrite the existing **BRAND**, **MODEL** and **Quantity** fields for the selected vehicle as shown in CREATION OF A VEHICLE.
[See chapter 5.4.1 Creation of a vehicle p. 32](#)
- **DELETE:** Press **START** to confirm when the display shows:

```
Delete

Confirm by "START"
```

Wait a few seconds.

NOTE: The waiting time increases as the number of vehicles in the Owner DataBase becomes larger.

The vehicle is now deleted and the machine goes to the Owner DataBase list of vehicles.

5.5 Open program

1. Press **ENTER** to go to selection menu (if in Stand-by mode).

Open program

□ □ □ ■ □

2. Press **ENTER** to confirm.

3. Turn **COOLIUS SELECT** to select the program or more programs.

Recovery

The following selections are available:

- "RECOVERY"
- "NITROGEN PRESSURE TEST"
- "VACUUM"
- "A/C SYSTEM CHARGE"
- "RECOVERY / VACUUM"
- "VACUUM / A/C SYSTEM CHARGE"
- "RECOVERY / NITROGEN PRESSURE TEST / VACUUM / A/C SYSTEM CHARGE"

4. Press **ENTER** to confirm.

5.5.1 Process setting

Recovery

1. Turn **COOLIUS SELECT** to set the value.

- Minimum: 1 min.
- Maximum: 60 min.

Residual refrigerant
check.

min. 2

2. Press **ENTER** to confirm.

At the end The machine performs a self-cleaning process

[See chapter 4.6 Automatic Internal flushing p. 21](#) if "Automatic internal flushing" is activated under MACHINE SET-UP

[See chapter 4.6 Automatic Internal flushing p. 21.](#)

Otherwise it goes to stand-by mode.

Nitrogen Pressure Test



ATTENTION! Damage to the machine.

Maximum allowed pressure 12 bar!

Please refer to OEM instructions for Nitrogen Pressure Test!

1. Turn **ENCODER** to set the testing time.

- Minimum: 1 min.
- Maximum: 60 min.

Press **ENTER** key to confirm.

Nitrogen Press.Test

min. 3
Δ Pressure mb. 350

2. Turn **ENCODER** to set the maximum pressure drop value allowed to pass the test.

- Minimum: 100 mb.
- Maximum: 800 mb.

Press **ENTER** key to confirm.

3. Enter CAR DATA, then the display shows:

Please connect
nitrogen bottle
to press. test
inlet port

4. Press **START** to confirm.

The nitrogen valve fills the A/C System.

When the pressure is stable, the machine checks possible leaks for the time set.

Nitrogen Press.Test
in process

Pressure mb. 6500

5. At the end, the exhaust nitrogen valve empties the A/C System.

Nitrogen Press.Test
in process

Time sec. 120

Pressure mb. 6500

Nitrogen Press.Test
in process

Pressure mb. 6500

Process end.

Nitrogen Press.Test
OK!



MESSAGE: If charging pressure is too low
(below the minimum allowed threshold).

Press **STOP** to exit.

Not enough
pressure to test the
A/C system!



MESSAGE: If during the test a leak is detected:

Press **STOP** to exit.

Leakage in the
A/C system
under test.

Vacuum

1. Turn **COOLIUS SELECT** to set the vacuum time.

- Minimum: 20 min.
- Maximum: 900 min.

```
Vacuum time          min. 20
Leak test            min.  _
```

2. Press **ENTER** to confirm.
3. Turn **COOLIUS SELECT** to set the leak test time.
 - Minimum: 2 min.
 - Maximum: 60 min.
4. Press **ENTER** to confirm.

A/C system charge

A) In case of vacuum selected:

1. Turn **COOLIUS SELECT** to select the oil type (PAG oil or POE oil).
Press **ENTER** to confirm.

```
Select oil type:
PAG oil
```

1. Turn **COOLIUS SELECT** to set the Fresh oil value.

NOTE: The value indicates only the new oil added to the drained oil.

- Minimum: 0 g.
 - Maximum: 150 g.
2. Press **ENTER** to confirm.
 3. Turn **COOLIUS SELECT** to set the refrigerant amount.
 - Minimum: 50 g.
 4. Press **ENTER** to confirm.

```
PAG Oil          ml. 10
UV Dye           ml.  _
Refrigerant      g.  _ _ _ _
```

B) In case of vacuum not selected:

```
Refrigerant
g.  _ _ _ _
```

C) In case of A/C system charge:

5. Turn **COOLIUS SELECT** to set (usually HP).
HP PORT / LP PORT / HP/LP PORT
6. Press **ENTER** to confirm.
7. Input CAR DATA, then press **START** key to confirm.
The equipment performs all the selected processes.

```
Charge A/C system by
HP PORT
```

At the end The machine performs a self-cleaning process [See chapter 4.6 Automatic Internal flushing p. 21](#) if "Automatic internal flushing" is activated under Machine Set-up [See chapter 4.6 Automatic Internal flushing p. 21](#).
Otherwise it goes to stand-by mode.

5.6 A/C pressure test

This procedure allows to check the A/C system (pressures) without recovering refrigerant from the system.

1. Press **ENTER** to confirm.

A/C Pressure Test

□ ■ □ □ □ □ □ □ □ □

2. Perform the pressure test.
At the end confirm by **STOP**.

Verify the A/C
system pressures

NOTE: *If a temperature probe is connected to the machine,
then the value is shown in the 4th row of the screen.*

3. Perform the instruction.
Press **START** to confirm

Disconnect the HP
service hose (red)
from the A/C system

4. Wait the end.

Refrigerant recovery
from the
service hoses.

5. At the end The machine performs a self-cleaning process [See chapter 4.6 Automatic Internal flushing p. 21](#) if "Automatic internal flushing" is activated under MACHINE SET-UP [See chapter 4.6 Automatic Internal flushing p. 21](#). Otherwise it goes to stand-by mode.

5.7 A/C flushing (UNLOCK CODE required)

The flushing UNLOCK CODE is required to activate the A/C flushing process, please retrieve it on the web-site www.coolius-ac.com or call your service partner.

1. Press **START** to confirm.

```
Get UNLOCK CODE
register:
CC222222
www.coolius-ac.com
```

2. Enter the UNLOCK CODE using **COOLIUS SELECT**.

```
A*****
A
34567890 B C D E F G H I J K
```

3. Once done, confirm by **START**.



In order to clean the vehicle A/C system, the equipment performs a washing process in “single” or “multi pass” (multiple flushes). For more details, refer to the A/C system manufacturers.

1. Press **ENTER** to confirm.
2. Turn **COOLIUS SELECT** to select OTHER SELECTIONS confirm by **ENTER** then A/C FLUSHING.
3. Press **ENTER** to select.

```
A/C Flushing
□ □ ■ □ □ □ □ □ □ □
```

4. Turn **COOLIUS SELECT** to set from 01 to 04 steps (flushes).

Enter CAR DATA and press **START** to confirm.

```
A/C Flushing
Set flushes
required: 01
```

5. Press **START** key to confirm.

```
Confirm by "START"
```

The “single” or “multi pass” process is carried out.

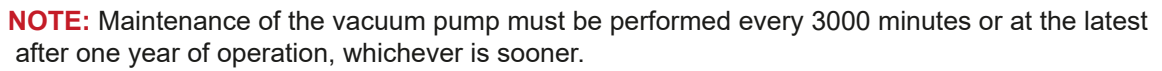
NOTE: Appropriate adaptors for the compressor/expansion valve are required.

```
Flushing in process
Please wait!
>>>
```

At the end the machine performs a self-cleaning process [See chapter 4.6 Automatic Internal flushing p. 21](#) if “Automatic internal flushing” is activated under MACHINE SET-UP [See chapter 4.6 Automatic Internal flushing p. 21](#). Otherwise it goes to stand-by mode.

```
Flushing completed.
Oil ml. //
```

6



- Select:
- Historical counters

- HISTORICAL COUNTERS
- NEXT SERVICE
- COUNTER RESET
(UNLOCK CODE required)
- REPORT

- ## 6.1 Operation history

This menu allows to check the operation history of the machine. The data are not erasable!

Select counter.
HF0 recovered
Total
Kg. ///. /

- ## 6.2 Next service

Maintenance within
3000 min.
pump working time.

6.3 Counter reset (UNLOCK CODE required)



NOTE: Change the filter and/or the vacuum pump oil before reset!

NOTE: Only genuine spare parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the machine!

Go to website www.coolius-ac.com or call your service partner to get the UNLOCK CODE for maintenance counter reset..

1. Press **ENTER** to type the unlock code.
2. Use the **COOLIUS SELECT** to enter the maintenance UNLOCK CODE obtained from www.coolius-ac.com.

Confirm by **START** when done.

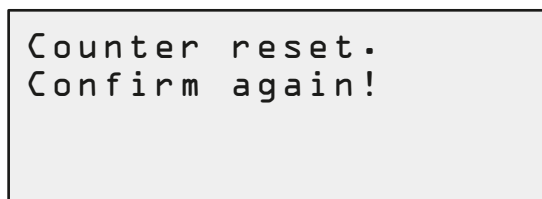
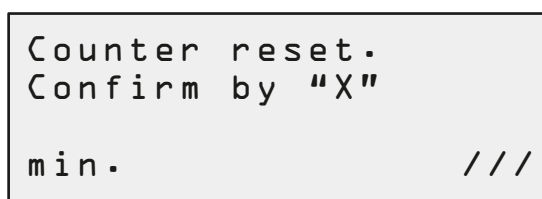
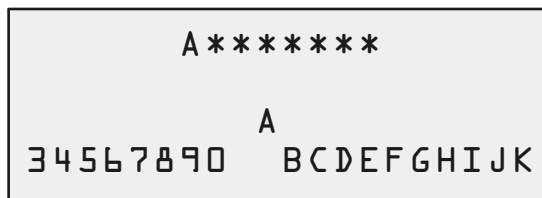
- If the UNLOCK CODE is wrong, repeat the step 8.
- If the UNLOCK CODE is right, go to step 9:

3. The display shows:

Press **X** key to confirm.

4. Press again **X** key to confirm.

Maintenance reset successfully completed.



6.4 Filter replacement



ATTENTION! Risk of injury from leaking refrigerant.

Contact with the refrigerant can cause blindness and other physical injury to the user!

Always use goggles and gloves!



1. Before dismounting the filter, start a recovery process to reduce the internal pressure!



ATTENTION! Risk of injury from electric shock.

Before working on the machine, always disconnect the plug from the power supply.

The maintenance of the filter can be performed by the inspection hole placed on the back side of the equipment.

2. By 38 mm ② wrench unscrew the filter ①.



NOTE! Disposal in according to local directives!

3. Lubricate and place correctly the new O-rings.
4. Assembly the new filter.

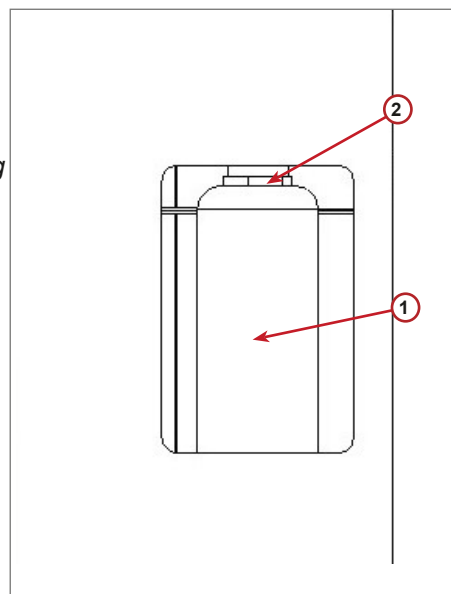


fig. 012 Filter replacement

6.5 Vacuum pump oil replacement



ATTENTION! Risk of injury from leaking refrigerant.
Contact with the refrigerant can cause blindness and other physical injury to the user!
Always use goggles and gloves!



ATTENTION! Risk of injury from electric shock.
Before working on the machine, always disconnect the plug from the power supply.



NOTE: Disposal in according to local directives!

1. Dismount the front cover.
2. Unscrew the oil discharge screw and wait for the oil to drain. Refit discharge screw.
3. Unscrew the muffler.
4. Fill with new oil. The correct oil level of the pump is around half sight glass (Filling capacity approx. 400 ml).
5. Refit the muffler.
6. Close the front cover.
The machine cannot be used with the front cover opened.

NOTE: The picture could show a different type of vacuum pump.

- (A) Muffler
- (B) Sight glass to indicate the oil level
- (C) Discharge screw
- (D) Discharge hole

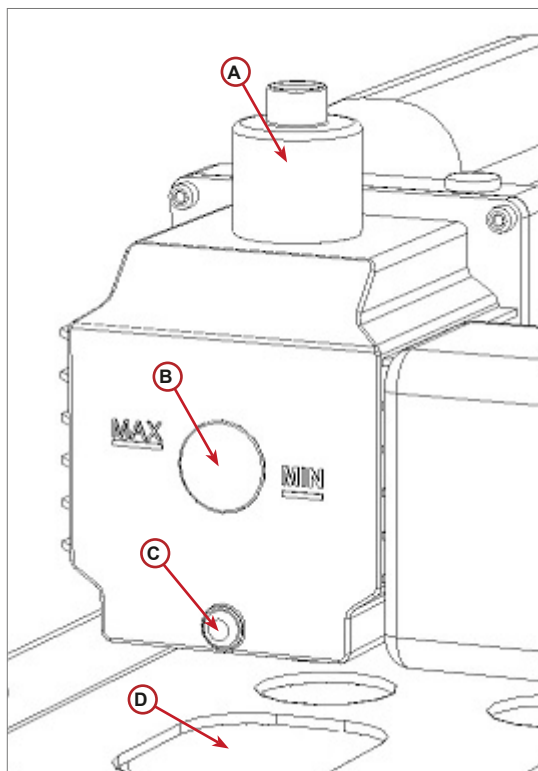


fig. 013 Vacuum pump

6.6 Report

The machine records the refrigerant usage monthly for the previous twelve months. Beyond this period, it will overwrite the data for the month in question.

1. Turn **COOLIUS SELECT** to select the following counters:

- REFRIGERANT RECOVERED FROM A/C SYSTEM
- REFRIGERANT RECOVERED FROM EXTERNAL TANK
- REFRIGERANT FILLED TO A/C SYSTEM

01/2020

HF0 recovered

Kg.

10.0

The display shows in sequence all the months and the total per year.

2. Press **START** to print the report.

2020

Total

HF0 recovered

Kg.

210

6.7 Scale reset

In order to compensate the scale deviation, perform the following instructions:

1. Turn **COOLIUS SELECT** to select `OTHER SELECTIONS`, confirm by **ENTER**,
2. Turn **COOLIUS SELECT** to select `SCALE RESET`
3. Press **ENTER** to confirm.

Scale reset

□□□□□□■□□

4. Turn **COOLIUS SELECT** to select the scale:
 - "REFRIGERANT WEIGHT SCALE"
 - "WASTE OIL WEIGHT SCALE"
5. Press **ENTER** to confirm.

Select:

Refrig. Weight scale

6.7.1 Refrigerant Weight scale

1. Lift the knob on the back side of the machine, move it to the left and turn it in clockwise direction in order to lock it into "safety position".
2. Press **START** key to confirm scale unloaded.

Unload weight scale
(safety position)



WARNING! Confirm by **START** only if the scale is unloaded!

3. At the end, bring back the knob to the "working position" (turn it counter-clockwise, move it slightly up and to the right, then fully down).

In case of mistake:
Perform again the procedure and be sure to follow correctly the instructions!

Reset not possible!
Scale not unloaded
PLS unload the scale
before reset.

6.7.2 Waste oil weight scale

1. Disconnect the waste oil bottle from its coupler.
2. Press **START** key to confirm bottle disconnected.



WARNING! Confirm by **START** only if the waste oil bottle is disconnected!

Unload used oil
scale!

3. Wait the end, then reconnect the waste oil bottle.

7 Technical features

Technical features	COOLIUS Y50A
Power	230V+/-10% 50/60Hz
Operating temperature range	10/49 °C
Refrigerant	R1234yf
Internal vessel capacity (Kg)	20 kg
Maximum pressure (PS)	20 bars
Compressor	3/8 HP
Recovery rate (liquid)	500 g/min'
Not condensable gas discharge	Automatic
Main drier filter	Type 660 Coaxial
Ventilation Security System	172 mm
Recovery high speed fan	172 mm
Internal vessel pressure gauge	D40 mm
Oil discharge – Environment friendly	Automatic
Bottle capacity (sealed)	250 ml
Refrigerant Weight scale	60 kg
Scale accuracy (+/-)	2 g
Nitrogen pressure test	Automatic
Vacuum pump	128 lt/min
Final pressure (McLeod abs)	0,05 mb
Electronic vacuum meter	YES
PAG oil charge	Automatic
Bottle capacity	250 ml
POE oil charge	Automatic
Bottle capacity	250 ml
UV Dye charge	Automatic
Bottle capacity	100 ml
Refrigerant charge	Automatic
Service hoses compensation	Automatic
Flushing program	On demand
Workshop program	YES

Configuration	
Refrigerant Analyzer (Neutronics Inc.)	SAE J2927
Display	4 x 20 characters
Keyboard with COOLIUS SELECT	YES
Vehicle Database	YES
Printer	YES
Pressure gauges (pulse free) CL 1.0	D 80 mm
Service couplings	Parker SAE J639
Service hoses 3.0 m	SAE J2888
Service hoses extension kit to 6.0 m (additional 3.0 m)	On demand

8 Disposal

8.1 Storage for long periods

The machine should be positioned in a safe area, disconnected from the supply and protected from excessive temperatures and humidity.

8.2 Disposal of used fluids



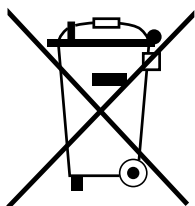
NOTE! *Used oil is hazardous waste. Do not mix used oil with other fluids.
Keep used oil in suitable containers prior to disposal.*

The lubricants extracted from A/C system must be delivered to used oil collection centre!

8.3 Disposal of packaging material

- The cardboard packaging material should be disposed of with other waste paper.
- Plastic packaging material should be added to other recyclable waste.

8.4 Scrapping the old unit



If you wish to scrap the Machine, first completely drain it of all liquids and dispose of them in an environmentally responsible manner.

Take the old unit to your nearest recycling centre or contact the customer service.

9 Contact and support



If you have further questions about the product or need help with the installation, our technical hotline staff will be happy to help you.

Contact information for your country's service partner can be found on our website

 www.wow-portal.com/contact

Manufactured by:

WOW ! ITALY

Viale della Stazione 7
39100 Bolzano, Italy

Distributed by:

Germany

WOW! Würth Online World GmbH

Schliffenstraße 22
74653 Künzelsau

Phone: +49 7940 981 88 - 0
Fax: +49 7940 981 88 - 10 99
info@wow-portal.com
www.wow-portal.com

Germany

WABCOWÜRTH Workshop
Services GmbH

Schliffenstraße 22
74653 Künzelsau

Phone: +49 7940 981863-0
Fax: +49 7940 981863-5555
info@wabcowuerth.com
www.wabcowuerth.com

Sweden

AUTOCOM
Diagnostic Partner AB

Grafitvägen 23 B
461 38 Trollhättan, Schweden

Phone: +46 520 470 701
Fax: +46 520 470 727
info@autocom.se
www.autocom.se

Australia

Würth Australia Pty. Ltd.
Building 5, 43 - 63 Princes Highway
Dandenong South
Victoria 3175

Phone: 1300 65 77 65
Fax: 1800 03 23 96
info@wurth.com.au
<http://www.wurth.com.au/>

Contact person: John Tsakoumangos

New Zealand

Würth New Zealand Limited
PO Box 97079, Manukau 2241
99 McLaughlins Road,
Wiri 2104, Auckland

Phone: +64 926 230 40
Fax: +64 926 230 30
info@wurth.co.nz
<http://www.wurth.co.nz/>

Contact person: Conrad Bennett

Japan

Würth Japan Co., Ltd.
MT Building
33 Sanmai-cho, Kanagawa-ku
Yokohama 221-0862


Phone: +81 454 884 186
Fax: +81 454 884 187
support@wuerth.co.jp
<http://www.wuerth.co.jp/>

China

Wuerth (China) Co., Ltd.
Building 5, No 51, Lane 1159 East
Kangqiao Road
Pudong District
201315 Shanghai

Phone: +86 215 029 76 66
marketing@wuerth.cn
legal@wuerth.cn
<https://www.wuerth.cn>

9.1 Service Portal

On the website  www.coolius-ac.com the activation of the machine can be carried out independently. In addition, you will find further help and instructions for your COOLIUS device on this website.



COOLIUS

WOW! ITALY
Viale della Stazione 7
39100 Bolzano
www.coolius-ac.com

Doc.No.: 22361_Rev.04.05
© by WOW! ITALY
All rights reserved.
Responsible for content: Product dept.