



Made in Wigam



 **WIGAM**



AUTOMOTIVE **AIR CONDITIONING** SYSTEMS AND
INSTRUMENTS FOR **MAC** AND MOBILE **REFRIGERATION**

2021
2022



AUTOMOTIVE **AIR CONDITIONING** SYSTEMS AND
INSTRUMENTS FOR **MAC** AND MOBILE **REFRIGERATION**

2021
2022



Since 1976 environmentally friendly technics and equipments



A long history **since 1976**

Castel San Niccolò (Italia)



REFRIGERATION
and **AIR CONDITIONING**
Catalogue



AUTOMOTIVE
Catalogue



HEATING
Catalogue



Wigam



Wigam S.p.a.



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Cert. Nr. 50 100 3770

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LEGEND

- Present
- Optional
- ✗ Not present
- M Manual
- * Standard for Optima/P
- ** Standard for OPTIMA/A



**OPTIMA
VARIANT**



**OPTIMA+
VARIANT**



**X-TREME/20
MULTIVARIANT**



**150-HP
MULTIVARIANT**

| | OPTIMA VARIANT | OPTIMA+ VARIANT | X-TREME/20 MULTIVARIANT | 150-HP MULTIVARIANT |
|--|-------------------|--------------------|------------------------------------|------------------------------------|
| Refrigerants | R1234yf-R134a | R1234yf-R134a | R1234yf-R134a-R404A R407C-R452A | R1234yf-R134a-R404A R407C-R452A |
| Automatic recovery | ● | ● | ● | ● |
| Automatic vacuum | ● | ● | ● | ● |
| Automatic refrigerant charge | ● | ● | ● | ● |
| Number of bottles with dedicated load cells | 3 | 3 | 2 | 2 |
| Refrigerant scale resolution | 5 g | 5 g | 5 g | 5 g |
| Oil scale resolution | 1 g | 1 g | 1 g | 1 g |
| UV scale resolution | 1 g | 1 g | - | - |
| Automatic oil charge (with scale) | ● | ● | ● | ● |
| Automatic UV charge (with scale) | ● | ● | ✗ | ✗ |
| Automatic oil discharge (with scale) | ● | ● | ● | ● |
| Hybrid and electric car management | ● | ● | ● | ● |
| Flushing software (suitable with R134-1234FS/4-6/ZM) | ● | ● | ● | ● |
| Automatic identification of leaks (vacuum test) | ● | ● | ● | ● |
| Test with NITROGEN/AZOIDRO | ● | ● | ● | ● |
| Service connection for injection/pressurization ICS. | ● | ● | ● | ● |
| Automatic lock scale ALS | ● | ● | ● | ● |
| Beginning Check System (B.C.S.) Intelligent Alert System (I.A.S.) | ● | ● | ● | ● |
| Database can be updated | ● | ● | ● | ● |
| Printer | ○* | ● | ● | ● |
| Refrigerant analyzer | ○ | ○** | ✗ | ✗ |
| Computerized discharge of non condensable gases | M | ● | M | M |
| Automatic valves (LOW-HIGH) | M | ● | M | M |
| Recovery of the refrigerant up to | 95% | 99% | 95% | 95% |
| ZERO emissions during oil discharge | ✗ | ● | ✗ | ✗ |
| Climate regulation pressure bottle | ✗ | ● | ✗ | ✗ |
| Recovery rate | 300 g/min | 300 g/min | 400 g/min | 1000 g/min |
| Vacuum pump swept volume | 100 l/min | 100 l/min | 100 l/min | 230 l/min |
| Bottle capacity | 10 kg | 10 kg | 20 kg | 40 kg |

O P T I M A



I.A.S-Intelligent Alert System

CHECK ATTREZZATURA | 18/10/2019 15:30 | 25.1°C

| | | |
|------------------------------------|--------|-----|
| Capacità filtro refrigerante | 30 kg | ✓ |
| Tempo residuo olio pompa per vuoto | 25 " | ✗ ⓘ |
| Quantità refrigerante in bombola | 1000 g | ✓ |
| Quantità olio nuovo | 10 g | ✓ |
| Quantità olio | 20 g | ✓ |

Sostituire l'olio della pompa per vuoto

Sostituire filtro | Sostituire olio

CHECK ATTREZZATURA | 18/10/2019 15:30 | 25.1°C

| | | |
|------------------------------------|--------|-----|
| Capacità filtro refrigerante | 30 kg | ✗ ⓘ |
| Tempo residuo olio pompa per vuoto | 25 " | ✓ |
| Quantità refrigerante in bombola | 1000 g | ✓ |
| Quantità olio nuovo | 10 g | ✓ |
| Quantità olio | 20 g | ✓ |

Sostituire l'olio della pompa per vuoto

Sostituire filtro | Sostituire olio

TEST PRESSIONE INTERNO | 18/10/2019 15:30 | 25.1°C

Assicurarsi che le valvole LOW e HIGH siano aperte
Accertarsi che non sia collegata nessuna vettura

Pressione corretta: 5.5 bar
Pressione reale: 5.4 bar

STOP | 0% | TEST START

B.C.S. Beginning Check System

CHECK ATTREZZATURA | 18/10/2019 15:30 | 25.1°C

| | | |
|------------------------------------|--------|-----|
| Capacità filtro refrigerante | 30 kg | ✓ |
| Tempo residuo olio pompa per vuoto | 25 " | ✓ |
| Quantità refrigerante in bombola | 1000 g | ✓ |
| Quantità olio nuovo | 10 g | ✗ ⓘ |
| Quantità olio | 20 g | ✓ |

Sostituire l'olio della pompa per vuoto

Sostituire filtro | Sostituire olio

CHECK ATTREZZATURA | 18/10/2019 15:30 | 25.1°C

| | | |
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| Capacità filtro refrigerante | 30 kg | ✓ |
| Tempo residuo olio pompa per vuoto | 25 " | ✓ |
| Quantità refrigerante in bombola | 1000 g | ✗ ⓘ |
| Quantità olio nuovo | 10 g | ✓ |
| Quantità olio | 20 g | ✓ |

Sostituire l'olio della pompa per vuoto

Sostituire filtro | Sostituire olio



AUTOMATIC RECOVERY, RECYCLING, VACUUM AND CHARGING UNIT WITH NEW TOUCH SCREEN

OPTIMA

R134a
R1234yf

HYBRID
READY



REFRIGERANT
ANALYZER
OPTIONAL



Automatic unit
R/R/V/C

Model: OPTIMA-VARIANT

Code 13003093

Kit connections and 2500 mm
flexible hoses for R134a

Model: K-134

Code 14010100

Kit connections and 2500 mm
flexible hoses for R1234yf

Model: K-1234

Code 14010101

Automatic unit
R/R/V/C with printer

Model: OPTIMA/P-VARIANT

Code 13003094

Optional
Analyzer Kit

Model: K-ANALYZER-VARIANT

Code 09017024

Optional Hermetic Dosimeters
Start Kit

Model: K-HERMETIC

Code 14028031

A SINGLE UNIT DESIGNED FOR R1234yf OR R134a

OPTIMA is the LATEST unit born in the WIGAM factory. It represents the New Generation of Stations for recovery, recycling, vacuum and charge for the maintenance and repair of vehicle air conditioning systems.

Totally designed and produced by WIGAM, OPTIMA includes the most innovative features on the market today, combining "Technology and Simplicity" in perfect harmony.

Thanks to its New 7" Touch Screen Display, OPTIMA can be set up according to one's own working habits, by choosing among multiple options and personalizing the daily use.

In compliance with the WIGAM tradition, OPTIMA enjoys a design concept that allows the maximum accuracy of the refrigerant quantity, both in the recovery and the charging phase, in line with the industry standards and in full respect of the environment. The 3 independent

scales with 1g resolution, managing Oils and Additives, allow to operate in a safe and reliable way on Hybrid and Full Electric Vehicles.

OPTIMA is also set up to work with Hermetic Disposable Dosimeters, through the purchase of the special kit.

The set-up has also been created for the "PLUG-IN" installation of the state of the art Refrigerant Analyser which interacts directly with the software.

OPTIMA is the follow-up of the family of WIGAM's VARIANT models. An only unit designed to be able to work with either R134a or R1234yf. By means of the purchase of the special completion kit, the unit will be selected for the requested refrigerant during the first starting phase and through a retrofit operation, OPTIMA can be converted to the use of the other refrigerant.

A/C UNITS

LEAK DETECTION

FLUSHING

DIAGNOSIS AND DECONTAMINATION

CO₂ (R744)

TOOLS AND SANITIZATION



MAIN FUNCTIONS

- **HYBRID-READY: AUTO-CLEAN function for hybrid and electric vehicles.**
- Automatic unit:
 - Automatic Recovery /Recycling.
 - Automatic Vacuum / Vacuum test.
 - Automatic oil discharge (with scale).
 - Automatic PAG, POE and UV oil charge.
 - Automatic refrigerant charge.
 - Automatic personalized cycle (recovery-vacuum-charge).
 - Flushing cycle.
- Database upgradeable with USB memory.
- Versions with (mod. OPTIMA/P) and without printer (mod. OPTIMA).
- Customized paper report with workshop/operator data/vehicle data.
- Automatic alarm for service: the unit advises when you have to replace the filter and the oil in the vacuum pump (I.A.S.).
- Automatic bottle pressure control.
- Periodic auto-test: the unit checks the internal circuit tightness every 20 days.
- Autotest of the non-condensables gases: the unit checks the bottle every 10 days.
- Pressure test with refrigerant before the charging phase.
- Service connection on low pressure hose (I.C.S.).
- Pressure test with nitrogen or AZOIDRO (N₂+H₂).
- Distillation with automatic control.
- Integrated room temperature probe.
- Ready for wifi connection (optional).
- **Designed to integrate the new VARIANT analyzer for R134a/ R1234yf (optional) managed directly via OPTIMA touch screen.**



EQUIPMENT OPERATION LIGHT INDICATOR



K-134

K-1234

Technical features

| | |
|---------------------|----------------|
| Refrigerants | R134a- R1234yf |
| Recovery rate | 300 g/min |
| Recovery accuracy | +/-15g |
| Recovery efficiency | >95% |
| Pump swept volume | 100 l/min |
| Bottle capacity | 10 kg |

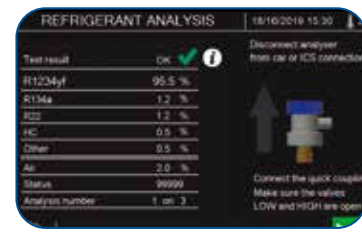
| | |
|---|--------------------------|
| Refrigerant scale resolution | 5 g |
| Oil/UV scale resolution | 1 g |
| Storage temperature | -10 to +50°C |
| Working ambient temperature | 0 to +40°C |
| Power supply | 230/1/50 |
| Dimensions and weight (without packaging) | 54 x 56 x 118 cm / 64 kg |



7" TOUCHSCREEN



CHART DATABASE BY BRAND



OPTIONAL ANALYZER KIT



ESS EASY-SERVICE-SYSTEM
Direct access to replace filter and vacuum pump oil



OPTIONAL HERMETIC DOSIMETERS START KIT



B.C.S. BEGINNING CHECK SYSTEM
I.A.S. INTELLIGENT ALERT SYSTEM



FULLY AUTOMATIC RECOVERY, RECYCLING, VACUUM AND CHARGING UNIT WITH NEW TOUCH SCREEN

o p t i m a +

R134a
R1234yf

HYBRID
READY



ZERO
EMISSION

REFRIGERANT
ANALYZER
OPTIONAL



Automatic unit
R/R/V/C with printer

Model: OPTIMA+ VARIANT

Code 13003097

Kit connections and 2500 mm flexible hoses for R134a

Kit connections and 2500 mm flexible hoses for R1234yf

Optional Analyzer Kit

Optional Hermetic Dosimeters Start Kit

Model: K-134

Model: K-1234

Model: K-ANALYZER-VARIANT

Model: K-HERMETIC

Code 14010100

Code 14010101

Code 09017024

Code 14028031

A SINGLE UNIT DESIGNED FOR R1234yf OR R134a

OPTIMA+ is the follow up of the New Generation of A/C units for recovery, recycling, vacuum and charge for the maintenance and repair of vehicle air-conditioning systems.

Totally designed and produced by WIGAM, OPTIMA+ includes the most innovative features on the market today, combining "Technology and Simplicity" in perfect harmony.

Thanks to its New 7" Touch Screen Display, OPTIMA+ can be set up according to one's own working habits, by choosing among multiple options and personalising the daily use.

In compliance with the WIGAM tradition, OPTIMA+ enjoys a design concept that allows the maximum accuracy of the refrigerant quantity both in the charging phase (+/- 15g) and in the recovery phase, equal to 99% of the total quantity. This model can work in a completely autonomous way, thanks to the Low and High automatic valves. The 3 independent scales with 1g resolution, managing oils and additives,

allow to operate in a safe and reliable way on Hybrid and full Electric Vehicles. The high accuracy standard, together with the new objective of "ZERO" refrigerant leaks during the oil discharge phase, and the fully automatic management of the discharge of non-condensable gases, ensure that this model complies with the strictest standard dictated by the German car manufacturers.

OPTIMA+ is also set up to work with Hermetic Disposable Dosimeters, through the purchase of the special kit. The set-up has also been created for the "PLUG-IN" installation of the state of the art Refrigerant Analyser which interacts directly with the software.

OPTIMA+ is the follow-up of the family of WIGAM's VARIANT models. An only unit designed to be able to work with either R134a or R1234yf. By means of the purchase of the special completion kit, the unit will be selected for the requested refrigerant during the first starting phase and through a retrofit operation, OPTIMA+ can be converted to the use of the other refrigerant

A/C UNITS

LEAK DETECTION

FLUSHING

DIAGNOSIS AND DECONTAMINATION

CO₂ (R744)

TOOLS AND SANITIZATION

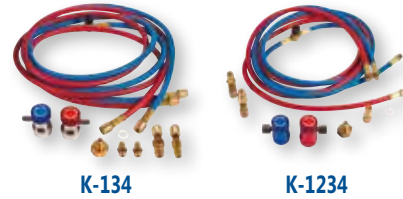


MAIN FUNCTIONS

- **HYBRID-READY: AUTO-CLEAN function for hybrid and electric vehicles.**
- Fully automatic unit:
 - **Low and High automatic valves**
 - Automatic Recovery /Recycling.
 - Automatic Vacuum / Vacuum test.
 - Automatic oil discharge (with scale).
 - Automatic PAG, POE and UV oil charge.
 - Automatic refrigerant charge.
 - Automatic personalized cycle (recovery-vacuum-charge).
 - Flushing cycle.
- **ZERO refrigerant emission during the exhausting oil phase discharge.**
- Database upgradeable with USB memory.
- Integrated printer. Customized paper report with workshop/operator/vehicle data.
- Automatic alarm for service: the unit advises when you have to replace the filter and oil in the vacuum pump. (I.A.S.).
- **Continuous monitoring of internal cylinder pressure.**
- **Automatic discharge control of not condensable gases.**
- Periodic auto-test: the unit checks the internal circuit tightness every 20 days.
- Pressure test with refrigerant before the charging phase.
- Pressure test with nitrogen or AZOIDRO (N₂+H₂).
- Distillation with automatic control.
- Integrated room temperature probe.
- **Automatic temperature control of the refrigerant heater cylinder.**
- Ready for wifi connection (optional).
- **Ready to integrate the new refrigerant analyzer Variant for R1234yf/R134a (optional) managed directly via the OPTIMA+ touch screen.**
- Ready to work with hermetic disposable dosimeters (optional).



EQUIPMENT OPERATION LIGHT INDICATOR



Technical features

| | | | |
|---------------------|----------------|---|--------------------------|
| Refrigerants | R134a- R1234yf | Refrigerant scale resolution | 5 g |
| Recovery rate | 300 g/min | Oil/UV scale resolution | 1 g |
| Recovery accuracy | +/-15g | Storage temperature | -10 to +50°C |
| Recovery efficiency | >99% | Working ambient temperature | 0 to +40°C |
| Charge accuracy | +/- 15g | Power supply | 230/1/50 |
| Pump swept volume | 100 l/min | Dimensions and weight (without packaging) | 54 x 56 x 118 cm / 64 kg |
| Bottle capacity | 10 kg | | |



ZERO EMISSION

ZERO refrigerant leaks during the oil discharge phase



INCONDENSABLE AUTOMATIC DISCHARGE



CHART DATABASE BY BRAND



OPTIONAL ANALYZER KIT



OPTIONAL HERMETIC DOSIMETERS START KIT



B.C.S. BEGINNING CHECK SYSTEM I.A.S. INTELLIGENT ALERT SYSTEM



FULLY AUTOMATIC RECOVERY, RECYCLING, VACUUM AND CHARGING UNIT WITH INTEGRATED ANALYZER

A/C UNITS

LEAK DETECTION

FLUSHING

DIAGNOSIS AND DECONTAMINATION

CO₂ (R744)

TOOLS AND SANITIZATION

o p t i m a + / A **R134a R1234yf** **HYBRID READY** **ZERO EMISSION** **WITH REFRIGERANT ANALYZER**



Automatic unit
R/R/V/C with printer and analyzer

Model: OPTIMA +/A VARIANT

Code 13003099

Kit connections and 2500 mm flexible hoses for R134a

Model: K-134

Code 14010100

Kit connections and 2500 mm flexible hoses for R1234yf

Model: K-1234

Code 14010101

Optional Hermetic Dosimeters Start Kit

Model: K-HERMETIC

Code 14028031

A SINGLE UNIT DESIGNED FOR R1234yf OR R134a

OPTIMA+/A is the follow up of the *New Generation of A/C units for recovery, recycling, vacuum and charge* for the maintenance and repair of vehicle air-conditioning systems.

Totally designed and produced by WIGAM, OPTIMA+/A includes the most innovative features on the market today, combining "Technology and Simplicity" in perfect harmony.

Thanks to its *New 7" Touch Screen Display*, OPTIMA+/A can be set up according to one's own working habits, by choosing among multiple options and personalising the daily use.

In compliance with the WIGAM tradition, OPTIMA+/A enjoys a design concept that allows the maximum accuracy of the refrigerant quantity both in the charging phase (+/- 15g) and in the recovery phase, equal to 99% of the total quantity. *This model can work in a completely autonomous way, thanks to the Low and High automatic valves.* The 3 independent scales with 1g resolution, managing oils and additives, allow to operate in a safe and reliable way on Hybrid and full Electric

Vehicles. The high accuracy standard, together with the new objective of "ZERO" refrigerant leaks during the oil discharge phase, and the fully automatic management of the discharge of non-condensable gases, ensure that this model complies with the strictest standard dictated by the German car manufacturers.

OPTIMA+/A is also set up to work with Hermetic Disposable Dosimeters, through the purchase of the special kit. Unlike the other versions OPTIMA+/A is supplied with the gas analyser Built-In hydraulically as standard. This variant allows fully automatic use even during the analysis phase, without disconnecting from the vehicle.

OPTIMA+/A is the follow-up of the family of WIGAM's VARIANT models. *An only unit designed to be able to work with either R134a or R1234yf.* By means of the purchase of the special completion kit, the unit will be selected for the requested refrigerant during the first starting phase and through a retrofit operation, OPTIMA+/A can be converted to the use of the other refrigerant.



MAIN FUNCTIONS:

- **HYBRID-READY: AUTO-CLEAN** function for hybrid and electric vehicles.
- Fully automatic unit:
 - **Automatic refrigerant composition analysis.**
 - **Low and High automatic valves.**
 - Automatic Recovery /Recycling.
 - Automatic Vacuum / Vacuum test.
 - Automatic oil discharge (with scale).
 - Automatic PAG, POE and UV oil charge.
 - Automatic refrigerant charge.
 - Automatic personalized cycle (recovery-vacuum-charge).
 - Flushing cycle.
- **ZERO refrigerant emission during the exhausting oil phase discharge.**
- Database upgradeable with USB memory.
- Integrated printer. Customized paper report with workshop/operator/vehicle data.
- Automatic alarm for service: the unit advises when you have to replace the filter and oil in the vacuum pump. (I.A.S.).
- **Continuous monitoring of internal cylinder pressure.**
- **Automatic discharge control of not condensable gases.**
- Periodic auto-test: the unit checks the internal circuit tightness every 20 days.
- Pressure test with refrigerant before the charging phase.
- Pressure test with nitrogen or AZOIDRO (N₂+H₂).
- Distillation with automatic control.
- Integrated room temperature probe.
- **Automatic temperature control of the refrigerant heater cylinder.**
- Ready for wifi connection (optional).
- **Automatic and built-in VARIANT (R134a/R1234yf) refrigerant analyser with composition analysis.**
- Ready to work with hermetic disposable dosimeters (optional).



NEW



EQUIPMENT OPERATION LIGHT INDICATOR



AUTOMATIC REFRIGERANT COMPOSITION ANALYSIS

| Test result | OK |
|-----------------|--------|
| R1234yf | 95.5 % |
| R134a | 1.2 % |
| P22 | 1.2 % |
| HC | 0.5 % |
| Other | 0.5 % |
| Air | 2.0 % |
| Status | 99999 |
| Analysis number | 1 on 3 |



K-134



K-1234



Technical features

| | | | |
|---------------------|----------------|---|--------------------------|
| Refrigerants | R134a- R1234yf | Refrigerant scale resolution | 5 g |
| Recovery rate | 300 g/min | Oil/UV scale resolution | 1 g |
| Recovery accuracy | +/-15g | Storage temperature | -10 to +50°C |
| Recovery efficiency | >99% | Working ambient temperature | 0 to +40°C |
| Charge accuracy | +/- 15g | Power supply | 230/1/50 |
| Pump swept volume | 100 l/min | Dimensions and weight (without packaging) | 54 x 56 x 118 cm / 66 kg |
| Bottle capacity | 10 kg | | |



AUTOMATIC REFRIGERANT COMPOSITION ANALYSIS



ZERO EMISSION
ZERO refrigerant leaks during the oil discharge phase



INCONDENSABLE AUTOMATIC DISCHARGE



CHART DATABASE BY BRAND



OPTIONAL HERMETIC DOSIMETERS START KIT



B.C.S. BEGINNING CHECK SYSTEM
I.A.S. INTELLIGENT ALERT SYSTEM



AUTOMATIC RECOVERY, RECYCLING, VACUUM AND CHARGING UNIT WITH NEW TOUCH SCREEN

A/C UNITS

x-treme/20-multivariant

R134a-R407C
R404A-R452A

R1234yf

HYBRID
READY

A/C-HVAC



LEAK DETECTION

FLUSHING

DIAGNOSIS AND DECONTAMINATION

CO₂ (R744)

TOOLS AND SANITIZATION



Automatic unit of R/R/V/C

Model: X-TREME/20 MULTIVARIANT

Code 13003096

Kit connections and 2500 mm flexible hoses for R134a

Model: K-134
Code 14010100

Kit connections and 2500 mm flexible hoses for R1234yf

Model: K-1234
Code 14010101

Kit connections and 5000 mm flexible hoses for R134a-R407C-R404A-R452A

Model: K-MR/200
Code 14010109

Kit connections and 5000 mm flexible hoses for R1234yf

Model: K-1234/200
Code 14010115

THE MOST VERSATILE UNIT IN THE WIGAM FAMILY

X-TREME/20 MULTIVARIANT represents the **most versatile** model of the WIGAM range and even of the market.

X-TREME/20 MULTIVARIANT is ready to work with **several refrigerants** such as R134a-R404A-R407C-R452A-R1234yf and it is the only unit that can be programmed also for new mixtures already on the market.

Thanks to its **New 7" Touch Screen Display**, it can be set up according to one's own working habits, by choosing among multiple options and personalizing the daily use. The unit is made entirely of metal and is suitable to be used for outside mobile service, for agricultural machines and heavy duty constructions. **It is also ideal for minibuses and mobile refrigeration.**

The unit is sturdy and was also designed to fit and be fixed perfectly inside a van, preserving the integrity of the scale and the inner bottle. Thanks to their deep technical knowledge in this field, WIGAM was able to manufacture a model able to withstand working exercises in

even very unfavourable environmental conditions.

In case of refrigerants that cannot be recycled, the model features the **BY PASS** function which, through a diverter valve, transfers the recovered refrigerant to an extra external bottle. The unit is also equipped with an on/off switch for the heater belt of the refrigerant internal bottle. It is perfect for quick and reliable operations on **hybrid and full electric vehicles.**

The presence of digital manometers on the display allows complete customization on the unit, based on the refrigerant set (MULTIVARIANT concept).

An only unit designed to be able to work with R134a-R404A-R407C-R452A and R1234yf. By means of the purchase of the special completion kit, the unit will be selected for the requested refrigerant during the first starting phase and through a retrofit operation, it can be converted to the use of another refrigerant.



MAIN FUNCTIONS



NEW

- Ideal for agricultural means, earth movement machineries and refrigerated means.
- Particularly recommended to work in unfavorable environmental conditions (high temperatures).
- During the recovery function, possibility, through a 3-way valve, to stock the refrigerant (polluted, not pure, ...) in an external cylinder.
- **MULTIVARIANT**: great flexibility thanks to the complete customization of the indications offered by the screen according to the refrigerant used.
- **HYBRID-READY**: **AUTO-CLEAN** function for hybrid and electric vehicles.
- **Integrated bottle 20 kg.**
- Automatic unit:
 - Automatic Recovery /Recycling.
 - Automatic Vacuum / Vacuum test.
 - Automatic oil discharge (with scale).
 - Automatic oil/UV charge.
 - Automatic refrigerant charge.
 - Automatic personalized cycle (recovery-vacuum-charge).
 - Flushing cycle.
- Database upgradeable with USB memory.
- Integrated printer. Customized paper report with workshop/operator/vehicle data.
- Automatic alarm for service: the unit advises when you have to replace the filter and oil in the vacuum pump.
- Periodic auto-test: the unit checks the internal circuit tightness every 20 days.
- Pressure test with refrigerant before the charging phase.
- Pressure test with nitrogen or AZOIDRO (N₂+H₂).
- Distillation with automatic control.
- Automatic system to protect refrigerant scale.
- Integrated room temperature probe.
- Complement kit with I.C.S. (INJECTION CONNECTION SYSTEM).



K-134



K-1234



K-MR/200



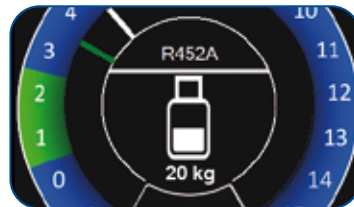
K-1234/200

Technical features

| | | | |
|------------------------------|---------------------------------|---------------------------------------|-------------------------|
| Refrigerants | R134a-R407C-R404A-R452A-R1234yf | Oil/UV scales resolution | 1 g |
| Recovery rates | 400 g/min | Storage temperature | -10 to +50°C |
| Pump swept volume | 100 l/min | Working ambient temperature | +10 to +50°C |
| Bottle capacity | 20 kg | Power supply | 230/1/50 |
| Refrigerant scale resolution | 5 g | Dimensions/weight (without packaging) | 47 x 63 x 93 cm / 85 kg |



**MULTIVARIANT MANAGEMENT
MULTIPLE REFRIGERANTS**



INTEGRATED BOTTLE 20KG



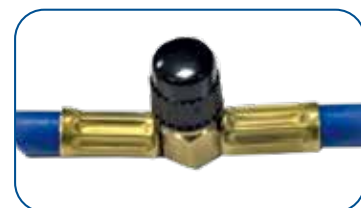
**INTEGRATED CONDENSER
WITH DOUBLE FAN**



INTEGRATED 3-WAY VALVE OF BYPASS
to transfer the recovered refrigerant directly to an external cylinder



**INTEGRATED PRINTER AND BOTTLE
CHECK PRESSURE GAUGE**



ICS INJECTION CONNECTION SYSTEM
Service connection on low pressure hose for UV oils injection and/or pressurization with nitrogen or AZOIDRO



AUTOMATIC RECOVERY, RECYCLING, VACUM AND CHARGING FOR HIGH-CAPACITY SYSTEMS WITH NEW TOUCH SCREEN

150HP-multivariant

R134a-R407C
R404A-R452A

R1234yf

HYBRID
READY

A/C-HVAC



Automatic unit of R/R/V/C for high-capacity systems

Model: 150-HP-MULTIVARIANT
Code 13003098

Kit connections and 2500 mm flexible hoses for R134a

Model: K-134
Code 14010100

Kit connections and 2500 mm flexible hoses for R1234yf

Model: K-1234
Code 14010101

Automatic unit of R/R/V/C with refrigerant charging pump for high capacity systems

Mod.: 150-HP-MULTIVARIANT/PL
Code 13003100

Kit connections and 5000 mm flexible hoses for R134a-R407C-R404A-R452A

Model: K-MR/200
Code 14010109

Kit connections and 5000 mm flexible hoses for R1234yf

Model: K-1234/200
Code 14010115

THE MOST EFFICIENT EQUIPMENT IN HIGH-CAPACITY CIRCUITS

With the 150-HP-MULTIVARIANT model, WIGAM boasts the record as the best unit on the market for the maintenance on the A/C systems of big capacity, such as buses, mobile refrigeration, trains and tramways.

Despite its size and weight, unit 150-HP-MULTIVARIANT moves easily even on garage and workshops outside areas. It is set up to work with several refrigerants such as R134a-R404A-R407C-R452A-R1234yf. It can be programmed also for new mixtures already on the market.

Thanks to its **New 7" Touch Screen Display**, it can be set up according to one's own working habits, by choosing among multiple options and personalizing the daily use.

Inside the unit, the components are suitable for the work stress that this model has to withstand; in fact all the main components are oversized. Thanks to its perfect balance of operation, the result of WIGAM's experience, 150-HP-MULTIVARIANT guarantees a recovery quantity equal to or higher than 1kg per minute, maintaining this level for a very long time, without reaching overpressures.

150-HP-MULTIVARIANT is also available in the PL version (with refrigerant charging pump), that allows to speed up the charging phase saving on execution time.

In case of refrigerants that cannot be recycled, the model features the BY PASS function which, through a diverter valve, transfers the recovered refrigerant to an extra external bottle. The unit is also equipped with an on/off switch for the heater belt of the refrigerant internal bottle. It is perfect for quick and reliable operations on hybrid and full electric vehicles.

The presence of digital manometers on the display allows complete customization on the unit, based on the refrigerant set (MULTIVARIANT concept).

An only unit designed to be able to work with R134a-R404A-R407C-R452A and R1234yf. By means of the purchase of the special completion kit, the unit will be selected for the requested refrigerant during the first starting phase and through a retrofit operation, it can be converted to the use of another refrigerant.



MAIN FUNCTIONS:

- Ideal for big dimensions A/C systems (buses, trains, refrigerated trucks,...).
- Available without (mod. 150-HP) or with refrigerant charging pump (150-HP/PL).
- During the recovery function, possibility, through a 3-ways valve, to stock the refrigerant (polluted, not pure, ...) in an external cylinder.
- **MULTIVARIANT:** great flexibility thanks to the complete customization of the indications offered by the screen according to the refrigerant used.
- **HYBRID-READY:** AUTO-CLEAN function for hybrid and electric vehicles.
- Automatic unit:
 - Automatic Recovery /Recycling.
 - Automatic Vacuum / Vacuum test.
 - Automatic oil discharge (with scale).
 - Automatic oil/UV charge.
 - Automatic refrigerant charge.
 - Automatic personalized cycle (recovery-vacuum-charge).
 - Flushing cycle.
- Database upgradeable with USB memory.
- Integrated printer. Customized paper report with workshop/operator data/vehicle data.
- Automatic alarm for service: the unit advises when you have to replace the filter and oil in the vacuum pump.
- Periodic autotest: the unit check the internal circuit tightness every 20 days.
- Pressure test with refrigerant before the charging phase.
- Pressure test with nitrogen or AZOIDRO (N₂+H₂).
- Distillation with automatic control.
- Automatic system to protect refrigerant scale.
- Complement kit with I.C.S. (INJECTION CONNECTION SYSTEM).



NEW



- A** LED indicator of operation.
- B** In-built printer
- C** Bottle check pressure gauge.



Technical features

| | | | |
|------------------------------|---------------------------------|-----------------------------|---------------------------|
| Refrigerants | R134a-R407C-R404A-R452A-R1234yf | Oil/UV scales resolution | 1 g |
| Recovery rates | 1000 g/min | Storage temperature | -10 to +50°C |
| Pump swept volume | 230 l/min | Working ambient temperature | +10 to +50°C |
| Bottle capacity | 40 kg | Power supply | 230/1/50 |
| Refrigerant scale resolution | 5 g | Dimensions / Weight | 87 x 55 x 133 cm / 140 kg |



**MULTIVARIANT MANAGEMENT
MULTIPLE REFRIGERANTS**



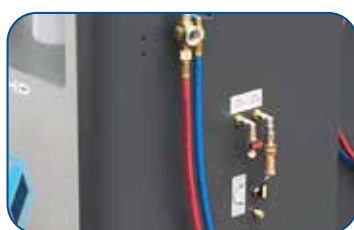
**INTERNAL BOTTLE
WITH HIGH CAPACITY (40KG)**



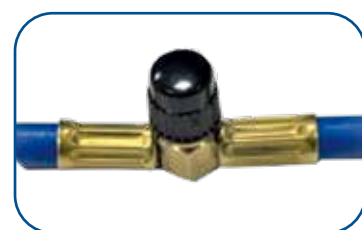
**VACUUM PUMP WITH SWEEPED
volume 230 l/min (14 m³/h) and final
vacuum level 2 x 10⁻² mbar (15 microns)**



OVERSIZED CONDENSER
for optimal performance at high
temperatures



INTEGRATED 3-WAY VALVE OF BYPASS
to transfer the recovered refrigerant directly
to an external cylinder



ICS INJECTION CONNECTION SYSTEM
Service connection on low pressure hose for UV oils injection
and/or pressurization with nitrogen or AZOIDRO



SPARE PARTS FOR RECOVERY, RECYCLING, VACUUM AND CHARGING UNITS

A/C UNITS



FILTER DRIER

OPTIMA - OPTIMA+ - X-TREME - 150-HP

- High capacity filter drier XH412
- Connections 1/4" SAE M.

• Code 14015013

EASYREC

- Filtre drier MG111.
- Connections 1/4" SAE M

• Code 14015008

LEAK DETECTION



OIL FOR VACUUM PUMPS

OPTIMA+

- 1 L pack. Ester oil W68
- Viscosity 68.

• Code 12002017

OPTIMA - X-TREME - 150-HP

- 1 L pack. Mineral oil K1L.
- Viscosità 46.

• Code 12002003

FLUSHING



GASKETS AND VALVE OPENERS FOR FLEXIBLE HOSES

- Kit (10pcs) Gaskets for 1/4"SAE, 1/2"-16ACME hoses (G19020).
- Kit (10pcs) Gaskets for 3/8"SAE hoses (G19030).
- Kit (10pcs) Gaskets for M12x1,5 (OR-ZM/K).
- Kit (10pcs) Valve openers for hoses (D19302).
- Specific tool that allows easy substitution of gaskets and installation of valve opener inside flexible hoses (LOCK-VALVE-CARE).

- Code 14020014001
- Code 14020015001
- Code 14020109001
- Code 14023001001
- Code 08008059

DIAGNOSIS AND DECONTAMINATION

CO₂ (R744)



FLEXIBLE HOSES OPTIMA - OPTIMA+ - X-TREME - 150-HP

OPTIMA - OPTIMA+ - X-TREME - 150-HP

- Flexible hose R134a blue-LP, 2500mm, connections 1/4" SAE F
- Flexible hose R134a red-HP, 2500mm, connections 1/4" SAE F
- Flexible hose R1234yf blue-LP, 2500mm, connections M12x1.5 M
- Flexible hose R1234yf red-HP, 2500mm, connections M12x1.5 M

- Code 06071121001
- Code 06071025002
- Code 06071120001
- Code 06071079002

X-TREME - 150-HP

- Flexible hose R134a-R404a-R407C-R452A blue-LP 5000mm connections 1/4SAE F
- Flexible hose R134a-R404a-R407C-R452A red-HP 5000mm connections 1/4SAE F
- Flexible hose R1234yf blue-LP 5000mm connections M12x1.5 M
- Flexible hose R1234yf red-HP 5000mm connections M12x1.5 M

- Code 06071126001
- Code 06071102002
- Code 06071128001
- Code 06071116002



TOOLS AND SANITIZATION



QUICK COUPLERS FOR R134a



LP blue 1/4" SAE M - 3/8" SAE M

Model: W-AV134-B4/6

Code 05108091

HP red 1/4" SAE M - 3/8" SAE M

Model: W-AV134-R4/6

Code 05108092



LP blue M 14 x 1,5 F - 3/8" SAE M

Model: W-AV134-BA/6

Code 05108095

HP red M14 x 1,5 F - 3/8" SAE M

Model: W-AV134-RA/6

Code 05108096



LP blue 1/4" SAE M

Model: AV134-B4

Code 05108051001

HP red 1/4" SAE M

Model: AV134-R4

Code 05108052001



LP blue 3/8" SAE M

Model: AV134-B6

Code 05108053001

HP red 3/8" SAE M

Model: AV134-R6

Code 05108054001

QUICK COUPLERS FOR R1234yf



LP blue M12 x 1,5 F

Model: W-AV1234-BM12

Code 05108101

HP red M12 x 1,5 F

Model: W-AV1234-RM12

Code 05108102



LP blue M12 x 1,5 F

Model: AV1234-BM12

Code 05108093001

HP red M12 x 1,5 F

Model: AV1234-RM12

Code 05108094001

QUICK COUPLERS FOR R134a/R1234yf - SPECIAL CONFIGURATION



R134a HP in-line coupler for
BMW-Volvo-Galaxy

Model: AVS134-RA

Code 05101031

R1234yf HP in-line coupler for
BMW-Volvo-Galaxy

Model: AVS1234-RA

Code 05101037



R134a HP coupler for
BMW-Volvo-Galaxy

Model: W-AVS134-RA

Code 05108097



R134a LP in-line coupler for
Ford-Jaguar

Model: AVS134-BA

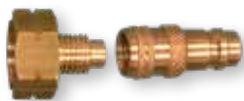
Code 05101035

R1234yf LP in-line coupler for
Ford-Jaguar

Model: AVS1234-BA

Code 05101038

ADAPTERS FOR BOTTLES



Adapter for R1234yf 21.8W 1/14" SX -
1/2" -16 ACME x quick coupler SX BP

Model: 821-818/AVK

Code 05108098001



Adapter for R134a
21.8W-1/14" DX F x 1/4 SAE M

Model: 816/2

Code 05055009



Adapter for R134a
21.8W-1/14" DX F x 3/8" SAE M

Model: 816/6

Code 05055011



Adapter
1/4" SAE F x 3/8" SAE M

Model: 404/6

Code 05055016



SAFETY SYSTEM CLICK-LOCK

Universal system of identification and protection. Protect your craftsmanship. Reduce questionable warranty returns. Provide your customer with a permanent system protection. Safeguard your equipment from being contaminated by impure refrigerants. Kit of 25 sets (high and low).



Example of application on vehicle

For R134a quick connections

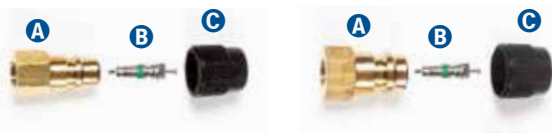
Model: CLSA100
Code 05049024

For 1/4" M and 1/2" ACME M connections

Model: CLSR100
Code 05049025

For R1234yf quick connections

Model: CLSY100
Code 05049057



CAPS AND INTERNAL CORES

A B C

Kit 5 couplers low pressure 1/4" SAE for R134a

Model: AVL/1K
Code 05108036001

B

Internal core for R22

Model: M1/4"-R22/B
Code 14023003

C

Kit 10 pcs. caps for LP quick coupler

Model: C134-BPK
Code 05108039001

Kit 5 couplers high pressure 1/4" SAE for R134a

Model: AVH/1K
Code 05108032001

Internal core for R134a

Model: M1/4"-R134A/V-R
Code 14023002

Kit 10 pcs. caps for HP quick coupler

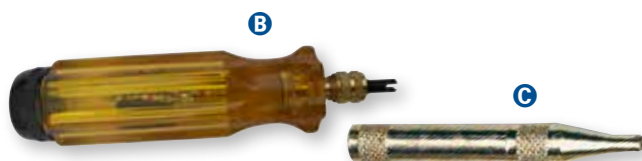
Model: C134-APK
Code 05108038001

DIGITAL TORQUE SCREWDRIVER CTV-DIGIT



Technical features

| | |
|-------------------|--|
| Torque range | 0-2 Nm |
| Torque resolution | 0.01 Nm |
| Torque accuracy | ±1% CW/CCW of reading, 10% to 100 % FS |
| Power supply | 1,5 V, 1 x AA alkaline |



TORQUE SCREWDRIVER W32000 - CTV1

A
Digital torque screwdriver

Model: CTV-DIGIT
Code 08008057

B
Torque screwdriver

Model: W32000
Code 08008002

C
Core Screw tool

Model: CTV 1
Code 08008003



PAG-OIL FOR R134a-R1234yf FOR BELT DRIVEN AND ELECTRIC COMPRESSORS

Double end-capped oil fully compatible with all R134a and R1234yf MAC systems, for belt driven and electric compressors. In 60ml hermetic bellows for K-Bellow injector or 260ml for quick connections and 250ml dosimeters.



Hermetic 60 ml PAG-46
Model: PAG-OIL46-60
Code 12001062

Hermetic 60 ml PAG-100
Model: PAG-OIL100-60
Code 12001063



Hermetic PAG 46 260 ml
Model: PAG46-BELLOW260
Code 12001072

Hermetic PAG 100 260 ml
Model: PAG100-BELLOW260
Code 12001073



Capacity 250 ml PAG-46
Model: PAG-OIL46-250
Code 12001060

Capacity 250 ml PAG-100
Model: PAG-OIL100-250
Code 12001061

POE OIL FOR R134a-R1234yf FOR ELECTRIC COMPRESSORS

Compatible with A/C systems for R134a and R1234yf with electric compressors for which POE is the specific oil. In 60ml hermetic bellows for K-Bellow injector or 260ml for quick connections and 250ml dosimeters.



Hermetic 60 ml POE
Model: POE-OIL-60
Code 12001065



Hermetic oil POE 260 ml
Model: POE-BELLOW260
Code 12001071



Capacity 250 ml POE
Model: POE-OIL-250
Code 12001064

INJECTION KITS

Kit complete with a plastic injector for 60ml bellow cartridges, adapter hose 1/4"SAE with check valve, LP quick couplers R134a and R1234yf.



Injection kit for R134a-R1234yf
Model:K-BELLOW-A/C
Code 14028029

OPTIMA and OPTIMA+ processing kit for hermetic injection of oils and UV complete with quick couplers. Composed of:

- 1 x Additive 125ml.
- 1 x Oil PAG100 260ml.
- 1 x Oil POE 260ml.
- 1 x Quick coupler kit.
- 1 x Oil PAG46 260ml.



Hermetic dosimeters start kit
Model: K- HERMETIC
Code 14028031

1/4" SAE, 3/8", SAE aluminium injector.



1/4" SAE aluminium injector
Model: OJ/4
Code 14028005
 3/8" SAE aluminium injector
Model: OJ/6
Code 14028006



UV LAMPS AND DYES

Complete kit in plastic case with UV lamp, glasses, 60ml dye cartridge, plastic injector, adapter hose 1/4" with check valve, LP quick couplers for R134a and R1234yf, 250ml detergent.

**A****B**

- A** TORCH-PRO-60-KIT-A/C complete with high performance lamp TORCH-PRO with rechargeable battery and charger.
- B** TORCH-MINI-60-KIT-A/C complete with lamp TORCH-MINI.

A
PRO - UV kit hermetic 60 ml
Mod: TORCH-PRO-60-KIT-A/C

Code 09001111

B
MINI - UV kit hermetic 60 ml
Mod: TORCH-MINI-60-KIT-A/C

Code 09001113

**C****D**

Complete kit in case with UV lamp, glasses, additive 250 ml and detergent 250ml.

- C** TORCH-PRO-250-KIT-A/C complete with high performance lamp TORCH-PRO with rechargeable battery and charger.
- D** TORCH-MINI-250-KIT-A/C with lamp TORCH-MINI.

C
PRO kit - UV 250 ml
Mod: TORCH-PRO-250-KIT-A/C

Code 09001112

D
MINI kit - UV 250ml
Mod: TORCH-MINI- 250-KIT -A/C

Code 09001114

UV LAMPS

**A****B**

TORCH-PRO High performance UV lamp 365nm with glasses, rechargeable battery and charger.

TORCH-MINI UV lamp with glasses.

A
PRO-UV lamp
Mod: TORCH-PRO
Code 09001108

B
UV MINI lamp
Mod: TORCH-MINI
Code 09001109

UV DYES

UV CLEANER

LEAK STOP



Hermetic bellow 60 ml
Mod: UV-BELLOW60
Code 12001058



Hermetic bellow 125 ml
Mod: UV-BELLOW125
Code 12001070



UV dye, capacity 250 ml
Mod: UV-CAN250
Code 12001057



Dye cleaner, capacity 250 ml
Model: UV-CLEAN-250
Code 13005067



Leak stop system
Model: LEAK-STOP-MAC-XL
Code 12001059



LEAK DETECTOR VOYAGER-IR

Infrared leak detector for R134a and R1234yf.

Technical features:

- The infrared sensors are long lasting.
- Senses change in refrigerant levels, working even in contaminated environments.
- 3 Sensitivity Levels (4g/yr).
- Audible alarm and optimized graphics on large LCD screen.
- High quality sturdy probe.
- Peak/Mute buttons and connection for earphone.
- Peak recording function.
- Sturdy case.
- Rechargeable lithium-ion battery.
- Complies with CE n.1516/2007, EN14624, SAE J1627, SAE J2791, SAE J2913.

R134a
R1234yf



Infrared leak detector

Model: VOYAGER-IR

Code 09001116

LEAK DETECTOR VOYAGER

Semi-conductor leak detector for R134a, R1234yf and AZOIDRO (N₂-H₂).

Technical features:

- Semi-conductor technology.
- Multiple sensitivity levels (3g/year).
- Sound alarm and optimized graphics on LCD screen.
- High quality sturdy probe.
- "Mute" button and headphone connection.
- Peak recording function.
- Sturdy case.
- Rechargeable lithium-ion battery.
- Complies with CE n.1516/2007, EN14624, SAE J1627, SAE J2791, SAE J2913.

R134a
R1234yf

AZOIDRO
N₂-H₂



Semi-conductor leak detector

Model: VOYAGER

Code 09001115

LEAK DETECTOR ELD-H

Electronic leak detector for R134a and R1234yf.

Technical features:

- Lightweight and ergonomic.
- Acoustic and sound alarm.
- Simple operation, single button.
- Calibrated at 3g/year.
- Self-off function.
- Complies with CE n.1516/2007, EN14624, SAE J1627.

R134a
R1234yf



Electronic leak detector

Model: ELD-H

Code 09001081

LEAK DETECTOR ELD-A

ELD-A leak detector uses a specific sensor for the Azoidro mixture (95% Nitrogen and 5% Hydrogen). This mixture was created in accordance with Regulation (EC) n.1516/2007.

Technical features:

- Semi-conductor technology.
- Maximum sensibility < 8 ppm H₂ (<4,9 g/year R134a equivalent).
- Automatic calibration.
- Warm up time < 30 seconds. Response time: 5 seconds.
- Probe length: 30 cm.
- Batteries life: 40 hours.
- TRICOLOR LED leak size indicator.
- Complies with CE n. 1516 2007.

AZOIDRO
N₂-H₂



Azoidro leak detector (N₂-H₂)

Model: ELD-A

Code 09001107

LEAK DETECTION KITS WITH AZOIDRO TOTAL-TEST



Leak in evaporator in an ambulance.



Leak from low pressure connection.



Leak in the condenser.



Leak from the compressor shaft.



Leak in the evaporator.



A



DUAL CONNECTION INTEGRATED



B

TOTAL TEST allows to detect and locate the leakages of the A/C system in compliance with Regulation (EC) No. 1516/2007 and Directive 2006/40/EC. The heavy duty professional nitrogen regulator AZ200/50 with dual integrated connection for cartridges and cylinders (no external adapter required) and "High Performance" safety valve and class 1 control pressure gauge allows to pressurize the system to the required value with the AZOIDRO mixture, to be able to check it with the specific leak detector.

Pressurize at 5 bar.

A The **TOTAL TEST A/C** leak detection kit contains in a sturdy plastic case:

- AZ200/50 nitrogen regulator with dual connection.
- VOYAGER electronic leak detector.
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE HD flexible hose, 1500 mm + 200 mm.
- AZOIDRO cartridge 1 lt - 110 bar, valid for 9-10 tests. **Code 11001112**
- Low pressure quick couplers for R134a and R1234yf.

B The **TOTAL TEST A/C ELD-A** leak detection kit contains in a sturdy plastic case:

- AZ200/50 nitrogen regulator with dual connection.
- ELD-A electronic leak detector.
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 1500 mm + 200 mm.
- AZOIDRO cartridge 1 lt - 110 bar, valid for 9-10 verification tests. **Code 11001112**
- Low pressure quick couplers for R134a and R1234yf.

COUNTRY CONNECTION IT
W21.7 x 1/14" M UN11144-5 M10X1

COUNTRY CONNECTION F-B-P-E
Ø21.7 x 1814" NF E 29-650/C M10X1

COUNTRY CONNECTION D
W24.32 x 1/14" F DIN477 nr10 M10X1

COUNTRY CONNECTION GB
G5/8" M BS341 nr3

| | | | | |
|----------|---|---|---|---|
| A | Model: TOTAL TEST-A/C Code 13005072001 | Model: TOTAL TEST-A/C-D Code 13005072002 | Model: TOTAL TEST-A/C-C Code 13005072003 | Model: TOTAL TEST-A/C-E Code 13005072004 |
| B | Model: TOTAL TEST-A/C-ELD-A Code 13005046010 | Model: TOTAL TEST-A/C-ELD-A/D Code 13005046011 | Model: TOTAL TEST-A/C-ELD-A/C Code 13005046012 | Model: TOTAL TEST-A/C-ELD-A/E Code 13005046013 |



LEAK DETECTION KIT WITH AZOIDRO TOTAL-PGR 100-A/C - 1LT

It allows to detect and locate the leaks of the A/C system in compliance with Regulation (EC) No. 1516/2007 and Directive 2006/40/EC.

Leak detection kit with nitrogen regulator PGR with integral brass body and single connection for 1 liter cartridges.

The leak detection kit **TOTAL PGR 100 A/C** contains in a sturdy plastic case:

- PGR 100 nitrogen regulator.
- ELD-A electronic leak detector.
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 900 mm + 200 mm.
- AZOIDRO cartridge 1 lt - 110 bar, valid for 9-10 verification tests.

Code 11001112

- Low pressure quick couplers for R134a and R1234yf.

Leak detection kit with Azoidro

Model: TOTAL PGR 100-A/C

Code 13005058002



**AZOIDRO
N₂H₂**

LEAK DETECTION KIT WITH AZOIDRO 5LT

It allows to detect and locate the leaks of the A/C system in compliance with Regulation (EC) No. 1516/2007 and Directive 2006/40/EC.

The heavy duty professional nitrogen regulator AZ200/50 with dual integrated connection for cartridges and cylinders (no external adapter required) and "High Performance" safety valve allows to pressurize the system to the value necessary to perform the check.

The leak detection kit **K-AZ200-50/AZOIDRO5-A/C** is composed of:

- AZ200-50 nitrogen regulator with dual connection.
- Ø80 pressure gauge, class 1.0 with defined sectors, positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 2500 mm + 220 mm.
- AZOIDRO 5lt - TPED - full cylinder (20 MPa).
- Metal frame.
- Low pressure quick couplers for R134a and R1234yf.

Leak detection kit with Azoidro

Model: K-AZ200-50/AZOIDRO5-A/C

Code 13005068002



**AZOIDRO
N₂H₂**

**DUAL
CONNECTION
INTEGRATED**

"NEW DIAL WITH N₂-H₂"

AZOIDRO CARTRIDGES AND CYLINDERS

Cartridges and cylinders containing AZOIDRO (mixture composed of 95% nitrogen and 5% hydrogen) which allow the pressurization of the system and the verification of the leak points using the VOYAGER and ELD-A electronic leak detectors.

A

Cartridge 1 l

Model: AZOIDRO

Code 11001112

B

Bottle 5 l

Model: AZOIDRO5

Code 11003020

C

Reference leak for R134/N2-H2

Model: RL-134/H2N2

Code 09050099



**AZOIDRO
N₂H₂**

C

LEAK DETECTION KIT WITH NITROGEN

AZOTO
N₂

DUAL
CONNECTION
INTEGRATED



The kit allows to detect and locate the leakages of the A/C system in compliance with Regulation (EC) No. 1516/2007 and Directive 2006/40/EC.

The heavy duty professional nitrogen regulator AZ200/50 with dual integrated connection for cartridges and cylinders (no external adapter required) and "High Performance" safety valve allows to pressurize the system to the value necessary to perform the check.

The **K-AZ200-50/BN2-A/C** kit contains in a sturdy plastic case:

- AZ200/50 pressure regulator with dual connection.
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 900 mm + 200 mm.
- Nitrogen cartridge 1 lt - 110 bar, **Code 11001060**
- Low pressure quick couplers for R134a and R1234yf.

COUNTRY CONNECTION IT
W21.7 x 1/14" M UN11144-5 M10X1

Model: K-AZ200-50/BN2-W-AV

Code 13005017004

COUNTRY CONNECTION F-B-P-E
Ø21.7 x 1814" NF E 29-650/C M10X1

Model: K-AZ200-50/BN2-W-AV-D

Code 13005017010

COUNTRY CONNECTION D
W24.32 x 1/14" F DIN477 nr10 M10X1

Model: K-AZ200-50/BN2-W-AV-C

Code 13005017013

COUNTRY CONNECTION GB
G5/8" M BS341 nr3

Model: K-AZ200-50/BN2-W-AV-E

Code 13005017012

LEAK DETECTION KIT WITH NITROGEN 5LT

AZOTO
N₂

DUAL
CONNECTION
INTEGRATED



It allows to detect and locate the leaks of the A/C system in compliance with Regulation (EC) No. 1516/2007 and Directive 2006/40/EC.

The heavy duty professional nitrogen regulator AZ200/50 with dual integrated connection for cartridges and cylinders (no external adapter required) and "High Performance" safety valve allows to pressurize the system to the value necessary to perform the check.

The **K-AZ200-50/BAZ50-A/C** leak detection kit is composed of:

- AZ200-50 nitrogen regulator with dual connection.
- Ø80 pressure gauge, class 1.0 with defined sectors, positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 2500 mm + 220 mm.
- 5lt nitrogen cylinder - TPED - full (20 MPa).
- Metal frame.
- Low pressure quick couplers for R134a and R1234yf.

Leak detection

Model: K-AZ200-50/BAZ50-A/C

Code 13005022002

NITROGEN CYLINDERS AND GAS CONTROL

AZOTO
N₂

A



B



C



1 liter cartridge and 5 liters high pressure compressed nitrogen cylinder.

GAS CONTROL spray leak detector.

A

Cartridge 950 cc - 110 bar

Model: BN2/1-TPED

Code 11001060

B

Bottle 5 l - 200 bar

Model: BAZ50/1

Code 11003011

C

Spray leak detector

Model: GAS CONTROL

Code 09001080

UNIVERSAL LEAK DETECTION KIT K-AZ200-50

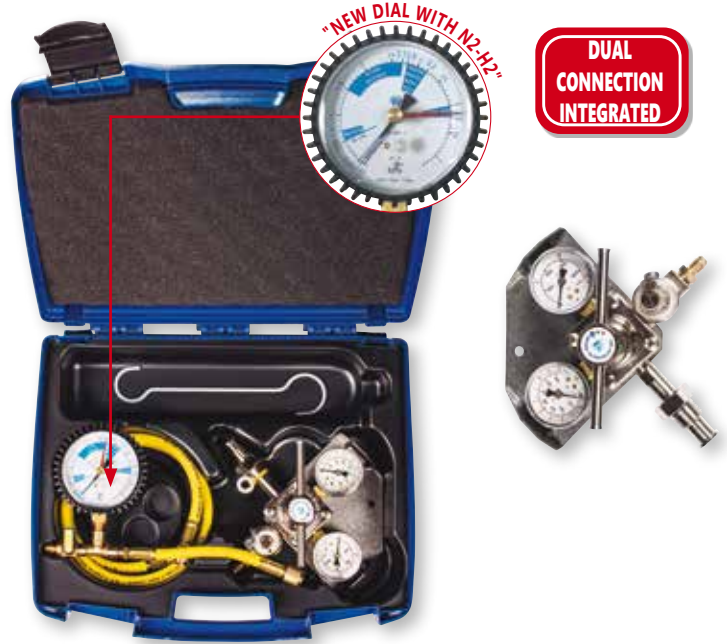
Thanks to its high maximum operating pressure (50 bar), the kit can be used to pressurize A/C systems with both nitrogen and AZOIDRO, with cartridges or cylinders.

The heavy duty professional nitrogen regulator AZ200/50 with dual integrated connection for cartridges and cylinders (no external adapter required) and "High Performance" safety valve allows to pressurize the system to the value necessary to perform the check.

The pressurization kit **K-AZ200-50** contains in a sturdy plastic case:

- AZ200/50 nitrogen regulator with dual connection.
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 1800 mm + 200 mm.

Quick couplers not included.



COUNTRY CONNECTION IT
W21.7 x 1/14" M UN11144-5 M10X1

Model: K-AZ200-50

Code 13005070010

COUNTRY CONNECTION F-B-P-E
Ø21.7 x 1814" NF E 29-650/C M10X1

Model: K-AZ200-50-D

Code 13005070011

COUNTRY CONNECTION D
W24.32 x 1/14" F DIN477 nr10 M10X1

Model: K-AZ200-50-C

Code 13005070012

COUNTRY CONNECTION GB
G5/8" M BS341 nr3

Model: K-AZ200-50-E

Code 13005070013

LEAK DETECTION KIT WITH NITROGEN K-WN2-60-A/C

Thanks to its high maximum operating pressure (50 bar), the kit can be used to pressurize A/C systems with both nitrogen and AZOIDRO, only with cylinders.

The pressurization kit **K-WN2-60-A/C** contains in a sturdy plastic case:

- WN2-60 nitrogen regulator with single connection for cylinders
- Control pressure gauge Ø80, class 1 with positioning index and adjustment screw.
- 1/4 "SAE flexible hose, 1800 mm + 200 mm.
- Low pressure quick couplers for R134a and R1234yf.



COUNTRY CONNECTION IT
W21.7 x 1/14" M UN11144-5 M10X1

Model: K-WN2-60-A/C

Code 13005066010

COUNTRY CONNECTION F-B-P-E
Ø21.7 x 1814" NF E 29-650/C M10X1

Model: K-WN2-60-A/C-D

Code 13005066011

COUNTRY CONNECTION D
W24.32 x 1/14" F DIN477 nr10 M10X1

Model: K-WN2-60-A/C-C

Code 13005066012

COUNTRY CONNECTION GB
G5/8" M BS341 nr3

Model: K-WN2-60-A/C-E

Code 13005066013



FLUSH SERIES FLUSHING STATIONS



The flushing stations are ideal to flush any A/C system, even large ones. They eliminate all solid residues caused by compressor or filter breakage and oil residues. Essential in case of breakdowns due to compressor breakages, or modifications of the A/C system. With the use of FLUSH series flushing stations, it is possible to minimize warranty claims due to compressor failure. To be used with SUPER-FLUSH non-flammable flushing liquid.

They are equipped with:

- Electric pump, specially designed for flushing with mechanical seal and PTFE gaskets, compatible with all flushing liquids (non flammable).
- 10 lt (FLUSH1-PLUS-A/C) or 30 lt (FLUSH-HP) tank, with connection for additional tank.
- Connection for external nitrogen cylinder
- Mechanical filter placed just before entering inside the tank.
- Flexible hoses with universal cones for connection to the pipes of the A/C system (in the FLUSH1 series).

Optional hose and filter dryer ("F") to increase the filtering effect and to be able to reuse the washing fluid a higher number of times

FLUSH&DRY-A/C allows the fluxing of the system thanks to the nitrogen regulator and the 950cc cartridge included in the kit (only FLUSH&DRY version).

| | | | | | |
|----------------------------------|--|--------------------------------|---|--|----------------------|
| A | B | C | | | |
| Flushing station for A/C systems | Flushing and fluxing station for A/C systems | High capacity flushing station | | | |
| Model: FLUSH1-PLUS-A/C | Model: FLUSH&DRY-A/C | Model: FLUSH-HP | | | |
| Code 13005038001 | Code 13005038002 | Code 13005044 | | | |
| | D | E | F | | G |
| | Flushing fluid 6Kg | Flushing fluid 20Kg | Kit with flexible hose, 3 "High capacity" filters 3/8"SAE M and gaskets | | Kit cones and clamps |
| | Model: SUPER-FLUSH/6 | Model: SUPER-FLUSH/20 | Model: KIT-FILT | | Model: F1-A/C |
| | Code 13005030 | Code 13005048 | Code 13006071 | | Code 05108087 |

Technical features

| | FLUSH&DRY - FLUSH1-PLUS | FLUSH-HP | | FLUSH&DRY - FLUSH1-PLUS | FLUSH-HP |
|-----------------|-------------------------|----------|--------------|-------------------------|--------------------|
| Pump flow rate | 26 l/m | 51 l/m | Motor power | 0,6 kW | 1,2 kW |
| Integrated tank | 10 l | 30 l | Power supply | 230-240/1/50-60 Hz | 230-240/1/50-60 Hz |
| Max pressure | 4,5 bar | 8,3 bar | | | |



UNIVERSAL FLUSHING KIT FOR A/C UNITS



The WIGAM flushing kit model R134-1234FS/4-6/ZM allows to flush the A/C systems using R134a or R1234yf refrigerant. It is suitable to be used with any automatic or manual recovery equipment. The INSPECTOR cylinder integrated in the kit allows check the quality of the refrigerant at the end of the flushing cycle.

WHY FLUSH WITH REFRIGERANT?

The liquid refrigerant, thanks to its mechanical action, allows to eliminate macro and micro particles, deposits, etc... from the A/C systems. This allows to extend the life of our A/C systems.

WHY USE THE WIGAM FLUSHING SYSTEM?

Thanks to the large internal volume of the flushing system, the flow of refrigerant reaches a high speed inside the system, maximizing the cleaning action.

The filter adds a dehydrating action to the flushing, making it really complete.

The maintenance kit includes two filter driers and gaskets for hoses.

The presence of the INSPECTOR cylinder (unique in this application) allows checking visually the quality of the refrigerant and the amount of dirt removed.

Standard equipment:

- 2 flexible hoses of 1500 mm.
- 1 kit of adapters for R1234yf (M12x1.5).
- 1 kit of adapters for R134a (1/4" - 3/8" - M14x1.5).
- 1 hose with check valve to guarantee an unidirectional flow.



Universal flushing kit

Model: R134-R1234FS/4-6/ZM

Code 13006064

FLUSHING SET BY PRESSURIZATION



Complete set to flush refrigeration circuits that allows complete removal of impurities and oil, by injecting the flushing fluid under pressure into the system in both directions alternately, using the cylinder and a professional nitrogen pressure regulator set at a pressure between 5-7 bar.

Completely removes metal fragments, impurities and oil.

It leaves no residue. Economic. Practical and fast.

It can be used in combination with nitrogen kits.

To be used with FF1 or SUPER-FLUSH flushing fluids.

Presented in a sturdy plastic case containing:

- Fluid injection system (1 liter), with pressure gauge, hook and valve for nitrogen connection.
- 5 liter tank to collect the waste fluid.
- Flexible hose to connect the flushing set to the A/C system.
- Flexible hose to connect the A/C system to the waste fluid collection tank.
- Universal cones for connection to the A/C system.

A

Flushing set by pressurization

Model: A/CF-P-A

Code 13005007006

B

Flushing liquid

Model: FF1

Code 13005006





Browse the countless solutions on the WIGAM Refrigeration catalog

SPY

"SPY" ANALYZER KIT WHY?

The information provided nowadays by the existing manifold on the market is based on pressures and temperatures. Important but incomplete information, since the standard sightglass does not allow us or only partially, to guess the passage of the refrigerant, its phase (liquid or vapour) and its quality.

WHAT INFORMATION DOES SPY PROVIDE?

The ever-increasing importance of indications on the state of refrigerant and oils has led to design the new SPY WIGAM manifolds.

The innovative SPY diagnostic manifolds, in order to help technicians in daily working, are equipped with a fully transparent central body representing the new frontier of these service equipment.

Here are some of the indications that can be obtained quickly and easily using SPY:

- Clearly show if we are working with refrigerant in the liquid or steam phase.
- Clearly show the presence of contaminants in the refrigerant.
- Show the miscibility state of the refrigerant with oil.

Sturdy plastic case containing:

- 1 manifold SPY with gauges R134a-R1234yf, 80mm "Pulse Free", class 1.
- 2 flexible hoses 1500mm 1/4" x 1/4", blue and red.
- 2 flexible hoses 1500mm 1/4" x 1/4", with ball valve, yellow.
- 2 quick couplers R134a (blue + red).
- 2 quick couplers R1234yf (blue + red).
- 1 adapter 1/4"SAE M – 1/2"-16ACME SX F.

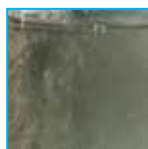
Analyzer kit Spy

Model: K-SPYF4-4-GYSS60

Code 04102033



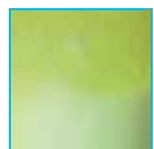
Cleaned refrigerant



Oil and refrigerant with good miscibility



Oil, additives and refrigerant with good miscibility



Bad refrigerant oil miscibility



Refrigerant and additive contaminated by water



Compressor burned

4-WAYS MANIFOLD KIT

Sturdy plastic case containing:

- A 4-ways manifold.
- 4 hoses 1500mm.
- 3 quick couplers (2 blue and 1 red).
- 1 bottle adapter-connection.

Manifold kit for R1234yf

Model: K-W4PFD4-ZM-K1-GYSS60

Code 04102031

Manifold kit for R134a

Model: K-W4PFD4-4-K1-GYSS60

Code 04102032



On request the kit can be supplied in any combination.

REFRIGERANT IDENTIFIERS AND ANALYZERS FOR R134a AND R1234yf

Given the increase in the market of the use of refrigerant products that contain hydrocarbons (propane, isobutane,...) within their composition, the use of these types of analyzers is recommended to avoid the contamination of refrigerant gas (which would be useless after mixing/contamination) therefore the possible damages that can cause the A/C charging equipment, which was neither designed nor tested to operate with hydrocarbons.

WIGAM offers 2 solutions:

- MINI-ID cheap PASS/FAIL solution.
- LEGEND-ID professional solution with composition analysis.

The MINI ID identifier with a compact and sturdy design performs a quick and accurate analysis of the refrigerant in a simple way.

The MINI ID refrigerant identifier will help you verify the presence and quality of R134A or R1234yf refrigerant from automotive A/C systems. If during the analysis process it is found that the purity is less than 95%, the identifier will visually warn " FAIL ", indicating that this refrigerant must not be recovered with the equipment.

The identifier itself provides us with detailed instructions for taking the refrigerant sample.

Available in version for R134a or R1234yf.

The LEGEND-ID analyzer performs a real analysis of the composition of the gas R134a R1234yf. Before the analysis operation, the instrument asks the operator for the type of refrigerant to be analyzed.

It provides the result of the purity percentage of the analyzed refrigerant, therefore the percentages of contaminants such as HC, R22 or air.

Available either with or without printer.



- Compact and light design
- Easy to use
- Sturdy and easy to handle
- Step-by-step instructions for carrying out the refrigerant analysis procedure



Technical features MINI-ID

| | |
|------------------------|------------------------|
| Weight | 0,8 kg |
| Identified refrigerant | R134a o R1234yf |
| Analysis type | PASS/FAIL (95% purity) |
| Supply | 12 VDC |
| Approvals | UL, CE, RoHS |

Technical features LEGEND

| | |
|------------------------|--|
| Weight | 5 kg |
| Identified refrigerant | R134a, R1234yf, R22 o R12 Hydrocarbons |
| Analysis type | Compositions |
| Supply | 12 VDC |
| Approvals | UL, CE, RoHS |

A
Identifier
for R134a

Model: MINI-ID 134

Code 09017012

B
Identifier
for R1234yf

Model: MINI-ID 1234yf

Code 09017021

C
Analyzer for
R134a and R1234yf

Model: LEGEND ID

Code 09017019

C
Analyzer for
R134a and R1234yf with printer

Model: LEGEND ID/P

Code 09017020

EASYREC RECOVERY UNITS



Available in single piston (EASYREC-1) version, and double piston (EASYREC-2) version for higher recovery speed.

Automatic self-evacuation device (PURGE) which allows you to change the type of refrigerant easily.

Low pressure switch that stops the equipment once the refrigerant recovery is complete, which avoids the problems of failure in the unit compressor during operation in the absence of refrigerant.

Signal led (green / cycle performed successfully - red / alarm).

Maximum pressure safety device.

Shut-off valves that prevent the escape of the refrigerant.

"Pulse free" pressure gauges with adjustment screw.

" High Resistance " ceramic cylinder with carbon fiber gasket.

Sight glass and filter included.

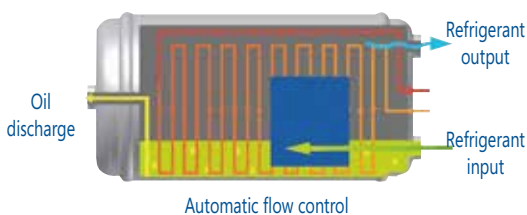
Wide graphics with quick functioning instructions.

Can be used with R134a and R1234yf, only by personnel specifically trained for the use of these gases.

EASYREC-R RECOVERY AND RECYCLING UNITS

EASYREC-R Integrated distillation system

High-efficiency heat exchanger



EASYREC-R includes the distillation system in a particularly compact design.

Distillation device with liquid refrigerant flow check, which allows to separate oil/impurities/dyes up to 900 cc very efficiently.

Available in single piston (EASYREC-1R) and double piston (EASYREC-2R) versions.

Automatic self-evacuation device (PURGE) that allows you to change the type of refrigerant easily.

Low pressure switch that stops the equipment once the refrigerant recovery is complete, which avoids the problems of failure of the unit compressor during operation in the absence of refrigerant.

Technical features

| | | | |
|--------------|-------------------------------------|---------------------------|-----------------------------|
| Refrigerants | R134a, R1234yf, CFC, HCFC, HFC, HFO | Maximal current draw | 4A |
| Power supply | 220 - 240V AC 50 - 60 Hz | Compressor | Piston-type and oil less |
| Power motor | 550W | Automatic safety shut-off | 38.5 bar/3850 kPa (558 psi) |

| Recovery rate | EASYREC 1-1R | | | EASYREC 2-2R | | |
|------------------------------|-------------------|-----------|----------------------|-------------------|-----------|----------------------|
| | R12-R134a-R1234yf | R22-R407C | R404A-R410A-R507-R32 | R12-R134a-R1234yf | R22-R407C | R404A-R410A-R507-R32 |
| Vapour | 14 kg/h | 15 kg/h | 16 kg/h | 28 kg/h | 30 kg/h | 32 kg/h |
| Liquid (Recovery) | 96 kg/h | 108 kg/h | 132 kg/h | 168 kg/h | 198 kg/h | 198 kg/h |
| Liquid (Recycling) EASYREC-R | 16 kg/h | 17 kg/h | 18 kg/h | 32 kg/h | 34 kg/h | 36 kg/h |
| Push-pull | 276 kg/h | 336 kg/h | 378 kg/h | 450 kg/h | 510 kg/h | 570 kg/h |

Recovery unit
Model: EASYREC-1
Code 13001019

Recovery and recycling unit
Model: EASYREC-1R
Code 13001020

Recovery unit
Model: EASYREC-2
Code 13001021

Recovery and recycling unit
Model: EASYREC-2R
Code 13001022



EASYREC-HP RECOVERY AND RECYCLING UNIT



- Ideal for recovery and recycling of large quantities of refrigerant.
- Integrated distillation system with automatic flow control of the refrigerant which allows the separation of oil / impurities / additives highly effective.
- Self-evacuation device (PURGE) that allows easily the passage from one refrigerant to another.
- Automatic stop device at the end of the cycle.
- Safety pressure switch (red light - alarm).
- Shut-off valves that prevent the escape of refrigerant.
- Pulse free pressure gauges Ø80 with adjustment screw.
- Flexible hoses 1500mm with shut-off valves.
- Two filters on the intake (with passage indicators) and one on the delivery.
- Can be used with R134a and R1234yf, only by personnel specifically trained for the use of these gases.



Technical features

| | |
|---------------------------|---|
| Refrigerants | CFC, HCFC, HFC e HFO (included R32 and R1234ze) |
| Power supply | 230/1/50 |
| Power motor | 1800W |
| Maximal current draw | 8A |
| Compressor | with oil |
| Automatic safety shut-off | 37 bar |
| Operating temperature | 10 to 50°C |

Recovery speed

| | |
|--------------------|----------|
| Recovery-Recycling | 60 kg/h |
| Push-Pull | 660 kg/h |

Recovery-recycling system

Model: EASYREC-HP

Code 13001025

MANUAL SYSTEM FOR REFRIGERANT TRANSFER R-ECOPUMP

- Ideal for the recovery of polluted refrigerant, after the analyzer warning of the unit for recovery, recycling, vacuum and charge.
- Ideal to make service on recovery, recycling, vacuum and charge units.
- The system allows to recover refrigerant reducing the residual quantity inside the A/C system in an inexpensive and safe way.

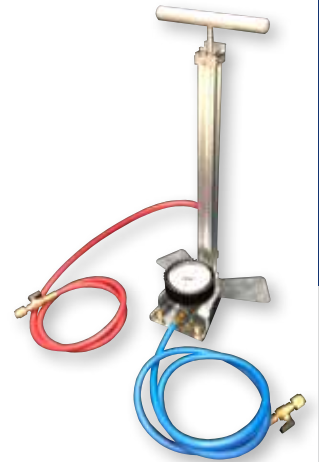
Technical features

| | |
|--------------------------------------|------------|
| Max. operating pressure | 12 bar |
| Liquid flow rate (for R134a-R1234yf) | 800 g/min* |
| Vapour flow rate (for R134a-R1234yf) | 180 g/min* |
| Liquid flow rate (for R290-R600a) | 320 g/min* |
| Vapour flow rate (for R290-R600a) | 72 g/min* |
| Reachable vacuum | - 0,8 bar |
| Max. temperature | 40°C |

Manual recovery system

Model: R-ECOPUMP

Code 13001026



* The calculation of the flow rate has been made considering a mean of 40/45 pumpings per minute.

RECOVERY BOTTLES WITH DOUBLE VALVE AND ELECTRONIC SCALE

- Refillable bottles without refrigerant with tube, with liquid and vapour valve ideal for recovery operation. 12,5 liters capacity.
- Electronic scale up to 100kg.



A
Recovery bottle for R134a

Model: W2-WR10K/44

Code 11001062

B
Recovery bottle for R1234yf

Model: W2-WR9K/48

Code 11001129

C
Electronic scale

Model: PRATIKA 100-05

Code 09013019

DIGITAL MANIFOLD FOR CO₂ (R744)

R744



PRESSURE TESTING WITH NITROGEN

FOX-R744 is realized on purpose to work with CO₂ (R744). FOX-R744 has the same performances as the other Fox series.

Functions:

- Maximum operating pressure 160 bar.
 - 200 bar overpressure.
 - 2 pressure transducers (0-160 bar).
 - Precision class better than 1% FS.
 - Type K temperature probes.
 - Room temperature probe.
 - 2-way piston manifold with 3 connections 1/4" SAE.
 - Pressure test with nitrogen.
 - Dimensions: 360 x 320 x 120 mm.
 - Weight: 3 kg.
- Equipment standard:
- 2 probes TK109.

2 ways digital manifold for CO₂ (R744)

Model: FOX-R744

Code 04080001006

MANIFOLD KIT FOR CO₂ (R744)

R744



2 ways piston manifold kit with Ø80 oil filled gauges for R744, class 1 with regulation screw and stainless steel case, 3 flexible hoses in plastic case.

- Manifold connections: 3x1/4" SAE.
- Hoses connections: 1/4" F x 1/4" SAE F (1 hose).
1/4" SAE F x 1/4" BSP F (2 hoses).
- Bar pressures: -1 +100 bar / 0 +160 bar.
- PTFE flexible hose, inox covering.
- Dimensions: 360 x 320 x 120 mm.
- Weight: 2,5 kg.

CO₂ (R744) manifold kit

Model: K-PF2ML/D5-4-COS-A/C

Code 04101132

QUICK COUPLERS FOR R744 (CO₂)



LP blue 1/4" M BSP

Model: W-AV744-B1/4

Code 05108106



HP red 1/4" M BSP

Model: W-AV744-R1/4

Code 05108107



NITROGEN REGULATOR (0-200 BAR) FOR CO₂ (R744) SYSTEMS

Technical features:

- Inlet pressure 300 bar.
- Outlet pressure 0-200 bar.
- Connections 1/4" SAE M.
- Regulation system by piston
- Inlet gauge 0-400 bar FS.
- Outlet gauge 0-400 bar.
- Dimensions: 220 x 150 x 150 mm.
- Weight: 2,3 kg.



IT nitrogen regulator (0-200 bar). Connection W 21.7 x 1/14" M

Model: WN2-200

Code 10002039

F-B-P-E nitrogen regulator (0-200 bar). Connection Ø21.7 x 1.814F

Model: WN2-200/D

Code 10002041

GB nitrogen regulator (0-200 bar). Connection G 5/8" M

Model: WN2-200/E

Code 10002040

D nitrogen regulator (0-200 bar). Connection W 24.32 x 1/14" F

Model: WN2-200/C

Code 10002042

CO₂ (R744) TEST SYSTEM KIT

Complete with gauge 0-200 bar (3080 psi) with reference indicator.

- Hose total length 1750 mm.
- Dimensions: 220 x 240 x 70 mm.
- Weight: 1 kg.



CO₂ (R744) test system kit

Model: COSS/4-4G/60V8/PF80/N2-K1

Code 05015015

R744 (CO₂) FLEXIBLE HOSES

PTFE hose, inox covering.

- Working max pressure 200bar.
- Busting pressure 800bar.
- Operating temperature -60°C +200°C.
- Connections 1/4"SAE F x 1/4"SAE F or 1/4"SAE F x 1/4"BSP F.



R744 flexible hoses in various lengths

Model: COSS/4-4/XXX

Code 061030xx

INFRARED LEAK DETECTOR FOR CO₂ (R744)

- Sensitivity less than 400 ppm to 350 ppm in environment.
- Light and ergonomic.
- Visual and sound leak signal.
- Simple, one button.
- Two levels of sensitivity.
- Self-off function.



Infrared leak detector for CO₂ (R744)

Model: ELD-D

Code 09001083

INFRARED LEAK DETECTOR FOR CO₂ (R744)

- High longevity and reliability infrared sensor.
- Multiple levels of sensitivity.
- Audible alarm and optimized graphics on large LCD screen.
- Mute button and headphone connection.
- Peak storage function.
- Rechargeable lithium-ion battery.



Infrared leak detector for CO₂ (R744)

Model: VOYAGER-R744

Code 09001119



DIGITAL THERMOMETER WITH PROBE SA 880 SSX

Digital thermometer with 1-meter probe, designed to measure temperature in the A/C outlet vents.

Thanks to the 1 meter cable, it is possible to see the temperature from the outside of the vehicle, without the necessity to access inside of the car.



Technical features

| | |
|--------------------------------------|----------------------------|
| Measuring range | -50°C to +300°C |
| Probe | 100 mm stainless steel |
| Resolution | 0,1°C (-19,9°C to 199,9°C) |
| Measuring units | °C/°F |
| High or low temperature programmable | yes |



DIGITAL INFRARED THERMOMETER TIR-50C

It allows the measurement of temperature without any contact.

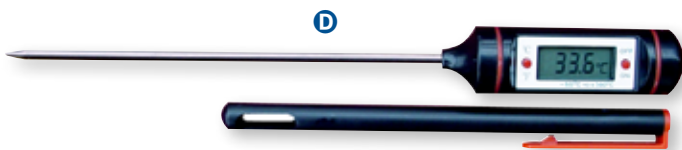
Emissivity adjustable from 0.10 to 1.00.

Large display with backlighting for easy of use in dark environments.



Technical features

| | |
|---------------------|-------------------------------|
| Measuring range | -50°C to 800°C |
| Distance | Spot Ratio 16:1 |
| Accuracy | ±2,5% reading |
| Repeatability | 1% reading or 1°C |
| Reponse time | 500 msec |
| Storage temperature | -20°C to +60°C (battery-free) |
| Batteries | 9 V x 1 |



DIGITAL PEN THERMOMETER ST09 / ST10

Digital pen thermometer with needle probe for measuring the temperature on the grilles of the vents of the A/C system.



Technical features

| | ST09 | ST10 |
|------------------------|----------------|----------------|
| Temperature range | -40°C to 200°C | -50°C to 300°C |
| Temperature resolution | 0,1°C | 0,1°C (<205°C) |
| Power supply | DC 1.5V LR44 | DC 1.5V LR44 |

A
Digital thermometer

Model: SA-880-SSX

Code 09011031

B
Infrared thermometer

Model: TIR-50C

Code 09011060

C
Digital pen thermometer

Model: ST09

Code 09011023

D
Digital pen thermometer

Model: ST10

Code 09011050



LOVAIR-PRO OZONO (O₃) GENERATOR

LOVAIR-PRO has been designed to support the treatment of passenger compartments and environments thanks to the reactivity of ozone (O₃) in oxidizing the vast majority of organic and inorganic particles, and the consequent odors, even in difficult places to reach.

LOVAIR-PRO advantages:

- Take advantage of a natural principle without the need for chemicals consumables.
- Effective in critical points that would otherwise be unreachable
- Widespread action thanks to the ability of ozone to penetrate tissues,...
- Automatic operation.
- Intervention times selectable according to areas and treatment.
- Timer up to 180 min.
- Double power supply connection 220V-50/60Hz and 12DVC.
- More than 10,000 half-hour treatments without using consumables .

How does OZONE works?

Ozone is a molecule of three oxygen atoms bound together (O₃), with negative electric. In nature, ozone is produced by some physical reactions. The most well-known example is of course the ozone layer, where ozone is produced from the sun's UV rays. But ozone is also produced at thunderstorms and waterfalls. The special "fresh and clean spring rain" smell is a result of nature-produced ozone. Ozone derives from the Greek word "ozein" which means "to smell".

After fluorine, ozone is the strongest oxidant found in nature. The ozone operates according to the principle of oxidation. When the static loaded ozone molecule (O₃) contacts with something "able to oxidize", the charge of the ozone molecule will directly flow over. This is because ozone is very unstable and tends to turn back to its original form (O₂).



Usage times* recommended in cabin treatments

| | |
|--|---------------|
| Utility vehicle / Average | 15 - 30 min. |
| Large sedans / SW / SUVs / Minivans / Truck cabins | 30 - 45 min. |
| Camper / Caravan / Minivan | 45 - 60 min. |
| Minibus | 60 - 90 min. |
| Buses / Trains | 90 - 180 min. |

* Read the manual carefully before using the equipment.

Usage times* recommended in room treatments**

| | |
|-------------------------|----------------|
| Up to 15 m ² | 15 - 30 min. |
| Up to 30 m ² | 30 - 60 min. |
| Up to 50 m ² | 60 - 90 min. |
| Up to 65 m ² | 90 - 120 min. |
| Up to 80 m ² | 120 - 180 min. |

* Read the manual carefully before using the equipment.

** Calculations with a room height of 3m.



Technical features LOVAIR-PRO

| | |
|------------------|------------------------|
| Ozone production | 4.000 mg/h |
| Power input | 40W |
| Power supply | 220V-50/60Hz and 12DVC |
| Dimensions | 20 x 15 x 15 cm |
| Weight | 2,5 kg |

Ozone generator O₃

Model: LOVAIR-PRO

Code 09019008

SANITIZER CLEAN-AIR

Sanitizer for air conditioning systems.

Removes bad smells.

Sanitizes safely and quickly.

Sanitizer

Model: CLEAN-AIR

Code 13005014





DAL 1976, UNA LUNGA STORIA

La WIGAM è sempre stata un'azienda al passo con i tempi, con lo sguardo "rivolto al green", senza mai tralasciare la parte tecnica, aggiornandosi sulle direttive europee e americane e adottando soluzioni tecniche per migliorare la qualità delle sue attrezzature.

WIGAM has always been a company in step with the times and with a view to being environmentally friendly. Without neglecting the technical part, Wigam is keeping up-to-date regarding the European and American standards and is adopting technical solutions to improve the quality of its units.



Cert. Nr. 50 100 3770



FINE ANNI '70

Produzione di unità per la carica e il vuoto degli impianti di condizionamento A/C.

Production of units for vacuum and charge of A/C conditioning systems.

ANNO 1994

Il protocollo di Montreal sancisce la messa al bando dei CFC (R12) responsabili della distruzione dell'ozono.

The Montreal Protocol banishes the CFCs (R12) that are responsible for the depletion of the ozone layer.

ANNI 2007-2012

La normativa SAE J2788 stabilisce la riduzione delle emissioni in ambiente dei fluidi refrigeranti durante la manutenzione degli autoveicoli (recupero minimo 95% del totale). Attuazione del protocollo di Kyoto stabilisce le tappe per la riduzione progressiva dei gas ad effetto serra (R134a) e lo sviluppo dei nuovi refrigeranti a basso impatto ambientale.

SAE J2788 standard establishes the reduction of refrigerant fluids emissions in the environment during maintenance of vehicles (minimum recovery of 95% of the total). Fulfilment of the Kyoto protocol for the progressive reduction of greenhouse gases (R134a) and for the development of the new low environmental impact refrigerants.

ANNO 2018

La Direttiva 2006/40/CE vieta dal 1 Gennaio 2017 l'immatricolazione di autovetture con impianti di condizionamento con gas fluorurati ad effetto serra a GWP >150, con conseguente uso di R1234yf.

Ampliamento della gamma per i settori agricolo, refrigerazione mobile...

Directive 2006/40/EC prohibits from 1st January 2017 the registration of vehicles with air conditioning systems with fluorinated greenhouse gases in GWP > 150, resulting in use of R1234yf.

Expansion of the range for agriculture, mobile refrigeration ...

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TERMS OF SALE

Prices are per unit, list prices and do not include VAT.

Packaging is invoiced at cost.

The Min. Qty column indicates the minimum orderable quantity.

Symbol indicates the pieces included in the kit.



In this case, price refers to the kit.

Prices are considered Ex-Works and can be changed by us without notice.

The goods are shipped at the consignee's risk, even if sold franco domicile. If there is no precise indication, goods will be shipped with one of our forwarders, without our being responsible.

No complaint will be considered valid and accepted after five days from the receipt of goods.

Any comment on the price invoiced must be done immediately.

Orders are always accepted without commitment regarding delivery times.

Delivery dates on order confirmations are approximate.

Deliveries are subject to the availability of raw material on the market.

Payments are not recognized unless effected to our domicile.

Return of goods are not accepted unless authorized and carriage free.

For any controversy, the place of jurisdiction is Arezzo, seat of our company, whatever are the way and the place agreed for the payment and the delivery.





WIGAM S.p.A.

Sede:

Loc. Spedale, 10/b
52018 Castel San Niccolò
(Arezzo) Italia
Tel. +39 0575 5011
Fax +39 0575 501200
www.wigam.com
info@wigam.com

Filiale:

Via Sibari, 15
20141 (Milano) Italia
Tel. +39 02 57307472
Fax +39 02 56804118

WIGAM IBERICA INSTRUMENTS, S.L.

Sede:

C/ Séquia Benáger, 19
Pol. Ind. Alquería de Moret
46210 Picanya (Valencia) España
Tel. +34 961 59 49 31
Fax +34 961 47 69 44
comercial.auto@wigam.es

Filiale:

Edificio Madrid 92
C/ Chile, 10. Oficina 107
28290 LAS ROZAS (Madrid)
Tel. 910 299 663
Fax 810 525 888
comercial.auto@wigam.es

