

ELPARTS | JAKOPARTS



[herthundbuss.com/
en/acservicing](http://herthundbuss.com/en/acservicing)

A/C servicing made simple!

Breathe easy!



Passt immer!

 **HERTH+BUSS**

A/C system servicing

Everything you need for a proper air conditioning - check

Nowadays, most vehicles come with air conditioning as part of their standard equipment. The reason: If it gets too hot in a car, it not only becomes unpleasant for the driver and passengers, but dangerous as well. If A/C servicing isn't performed, individual

components may also suffer significant damage. Spring is a good time for having your air conditioning checked. Experts recommend having A/C inspected by a workshop at least once a year.

OUR TIPS FOR SATISFIED CUSTOMERS AND AN OPTIMUM SERVICE OFFERING

»» TIP 1

Functional check and visual inspection

Tests for pressure, tightness and damage to hoses and lines are performed to start with. It may then be possible to already identify initial causes for malfunctioning of the A/C system.

»» TIP 2

Refrigerant replacement

Refrigerant is partly responsible for optimum functioning of the air conditioning system. The law specifies a maximum permissible upper limit of 40 g/year for vehicles with an evaporator and 60 g/year for vehicles with two evaporators. When more refrigerant escapes, the system is leaking. If there is a leak, we recommend using our SelectH2 selective gas detector. Even the smallest leaks can be easily identified as the SelectH2 responds to forming gas with its acute sensor system.

»» TIP 3

Top up the A/C compressor with oil

One important tip for all air conditioning service devices which do not automatically refill the compressor oil: the compressor oil drained off must be replaced with the same quantity of new oil.

»» TIP 4

Cabin filter replacement

To supply the interior with sufficient clean air, the cabin filter should be changed whenever A/C servicing is performed. To that end, our Jakoparts range includes an extensive assortment of cabin filters for Asian vehicle models. We also have biofunctional cabin filters in our range, especially for allergy sufferers. The special and natural polyphenol coating of the biofunctional filters binds allergens and prevents moulds and bacteria from getting into the vehicle interior.

»» TIP 5

Disinfection

A good air conditioning service also includes disinfecting the AC system. Our AirClean system lets you disinfect the vehicle interior and its air conditioning with little effort, so eliminating germs, fungi, viruses and bacteria on a purely mineral basis.





ELPARTS
**AnoKath®
AirClean**

AnoKath® ist ein starkes Oxidationsmittel
basiertes aus Wasser und Kochsalz.
• AnoKath® ist einfach in der Anwendung:
es sind keine besonderen Schutz- und
Sicherheitsmaßnahmen notwendig.
• Bei Augenkontakt mit viel Wasser spülen.
• AnoKath® reduziert zuverlässig
Schweißspatze, Kerne, Viren und Bakterien.
• AnoKath® trennt die Umwelt nur
wenig an.

AnoKath® ist
desinfizierend
Wirksam
gegen
Wasser
erhöht
die
Lebensdauer
von
Bauteilen
• Keine
AnoKath®
mit
• Keine
AnoKath®
mit
• Keine
AnoKath®
mit
• Keine
AnoKath®
mit

HERTH+BUSS

95921003
Reiniger: 95923008
cleaner / nettoyant

HERTH+BUSS

HERTH+BUSS
SelectH₂ mini





SelectH2 – Leak detection in A/C plants and cooling systems

Our SelectH2 family has been successfully established on the market. With this innovative technology, we offer automotive workshops a successful method of leak detection in passenger car and commercial vehicle A/C plants that saves time and money – and protects the environment.

The use of forming gas achieves considerable time savings compared with fault detection using contrast agents and UV light. Even vibration leaks which are difficult to pinpoint can be easily found: our cylinder pressure regulator can be used to search for these with varying pressure. And this method also provides the answer to a well-known problem when using contrast agents: namely, if too much contrast agent is poured into the refrigerant circuit, the valves can stick – not just in the A/C plant itself, but also in the A/C service unit.

The location of leaks using forming gas 95/5, which consists of 95 % nitrogen and 5 % hydrogen, is a low-cost, efficient alternative. This method is extremely environmentally friendly and has an advantage in that hydrogen, as the smallest atom, can penetrate even the tiniest leakage points at higher concentrations than the refrigerant R134a itself. In this way, even the smallest leaks are tracked down in a very short time.

The function of the gas detectors is unique worldwide. The evacuated A/C plant is filled with forming gas 95/5 so that the non-flammable and non-toxic forming gas can be distributed evenly throughout the cooling system of the A/C plant. Leak detection can now commence. If a leak exists, the extremely volatile hy-

drogen will escape at that point. The devices respond to a leak by means of an acoustic and one/two visual signal(s), indicating the measured quantity of hydrogen in ppm on the display. The SelectH2 and SelectH2 mini are each equipped with two gas sensors which work like an artificial nose and only respond to hydrogen, whilst the SelectH2 also features a suction/priming pump and an exhaust outlet. This is the most important difference to devices which respond to the refrigerant R134a. One major advantage is that the hydrogen itself can diffuse through the most minuscule hairline cracks, meaning that even very small leaks/leakages can be quickly and safely identified. With conventional equipment, it is almost impossible to locate very small leaks such as hairline cracks. After repairing the leak, it is recommended that another inspection be carried out using forming gas, followed by a function check.

SelectH2 can also be used to test the heat exchanger for leaks. Provided no hydrogen escapes, there is no need for time-consuming dismantling of the dashboard. The device can also be used to test all closed systems into which the forming gas can be introduced.

SelectH₂

The selective gas detector for every workshop

The compact SelectH₂ comes with all the features essential for professional leak detection work. As such, this product made in Germany can even be used to test large A/C plants on trucks and buses/coaches economically and reliably. Whether thanks to the backlit LCD display, the battery state indicator or the ergonomic design of the plastic housing and LED display, the SelectH₂ leak detector guarantees sustainable and environmentally friendly leak detection. The flexible goose neck makes detecting leaks a much simpler affair.

Further advantages of the SelectH₂

The SelectH₂ is equipped with two gas sensors and a suction pump which act like an artificial nose and respond only to hydrogen. This prevents indications of petrol and oil vapours during leak detection. This is the most important difference compared to conventional devices which respond to the refrigerant R134a.

BRIEF DESCRIPTION

The high sensitivity of both gas detectors makes it possible to detect traces of gases in the ppm range. For reference, 1 ppm (part per million; number of particles per million other particles) equates to a quantity of 1 cm³ gas in 1 m³ air. With the SelectH₂ and SelectH₂ mini gas detectors, up to 999 ppm is measured on this scale.

In the transition to 1,000 ppm, the display switches to the vol.-% range and changes to 0.1 vol.-% (see the comparison values in the following table).

Part per million (ppm)	Volume percent (%)
1 ppm	0,0001 %
10 ppm	0,001 %
100 ppm	0,01 %
1.000 ppm	0,1 %
10.000 ppm	1 %
100.000 ppm	10 %
1.000.000 ppm	100 %



LED (operating status display)

- If traces of gas are detected, this is shown in the display depending on the concentration.

Swan neck

- Flexible swan neck with a length of 320 mm

Robust housing

- Robust and durable thanks to sturdy aluminium housing



Gas sensor

- With flexible sensor extension

ON/OFF – backlight

ON/OFF – gas detector

Multifunction button

- Acoustic alarm ON/OFF
- Reset LEL
- Calibrate

Background gas

Suction pump with exhaust outlet

- Display of set gas type H2
- Concentration output on subsurface concentration

LCD display

- For gas concentration values (in ppm or %)
- Status and error messages

WORKSHOP TIP



Possible source of error: sender unit, interior temperature

A non-functioning air conditioning system does not necessarily indicate a leak in the air conditioning line. Cabin temperature sensors transmit a value to the control unit for the automatic air conditioning system with the help of a negative temperature coefficient (NTC) and thus an electrical resistance. The control unit uses the incoming signal to regulate the supply of cold and heat to the passenger compartment. If the sensors are defective, this process can be disturbed so that the air conditioning system selects a substitute value. Reasons for malfunctions can be dirt, corrosion or a broken cable.

The SelectH₂ types

It's your choice!



	SelectH ₂ mini	SelectH ₂
	95980019	95980002
Gauge	with illuminated LCD display, with battery state display	with illuminated LCD display, with battery state display, with LED display
Length gooseneck	320 mm	320 mm
Housing type	Synthetic material housing	Aluminium housing
Double sensors GGS 1000 / GGS 6000	broad band H ₂ -selective	broad band H ₂ -selective
W x H x D	44 x 175 x 36 mm	52 x 178 x 35 mm
With acoustic alarm	■	■
With integrated work light	■	
With suction pump		■
With extra slim sensor head		
Automatic zero-point calibration in fresh air	■	■
Automatic sensor check with error detection	■	■
Power supply		
Output voltage	9 V	12 V
Plug type	Round plug	Round plug
Diameter	2,5 mm	3,5 mm



Good to know

Invisible hazard

Investigations have shown that the GWP (Global Warming Potential) value of R-134a is around 1,300 times higher than that of CO₂. According to experts' estimates, around 820 tons of the refrigerant R134a are released into the atmosphere each year. This equates to a quantity of one million tons of CO₂, although losses caused by accidents and repair work cannot be taken into account for the purposes of the calculation. Since August 2006, the new Chemical Climate Protection Ordinance has therefore been in force, imposing on workshops a legal obligation to eliminate any leaks in a system before it can be refilled with refrigerant.

Since 1 January 2017, R134a will be forbidden in all new cars across Europe. This means that R134a will gradually need to be replaced by new refrigerants that minimise the greenhouse effect.

Refrigerant HFO-1234yf

Since as long ago as January 2011, the refrigerant HFO-1234yf, also called R1234yf, has been used in passenger car A/C plants with new type approvals. This means that the proportion of vehicles with A/C plants containing this refrigerant is constantly increasing. Workshops will need to get used to the fact that they have to handle this new refrigerant in the future.

SelectH ₂	SelectH ₂ slim
95980024	95980025
with illuminated LCD display, with battery state display, with LED display	with illuminated LCD display, with battery state display, with LED display
500 mm	500 mm
Aluminium housing	Aluminiumgehäuse
broad band H ₂ -selective	broad band H ₂ -selective
52x178x35 mm	52x178x28 mm
■	■
■	■
■	■
■	■
■	■
12 V	12 V
Round plug	Round plug
3,5 mm	3,5 mm

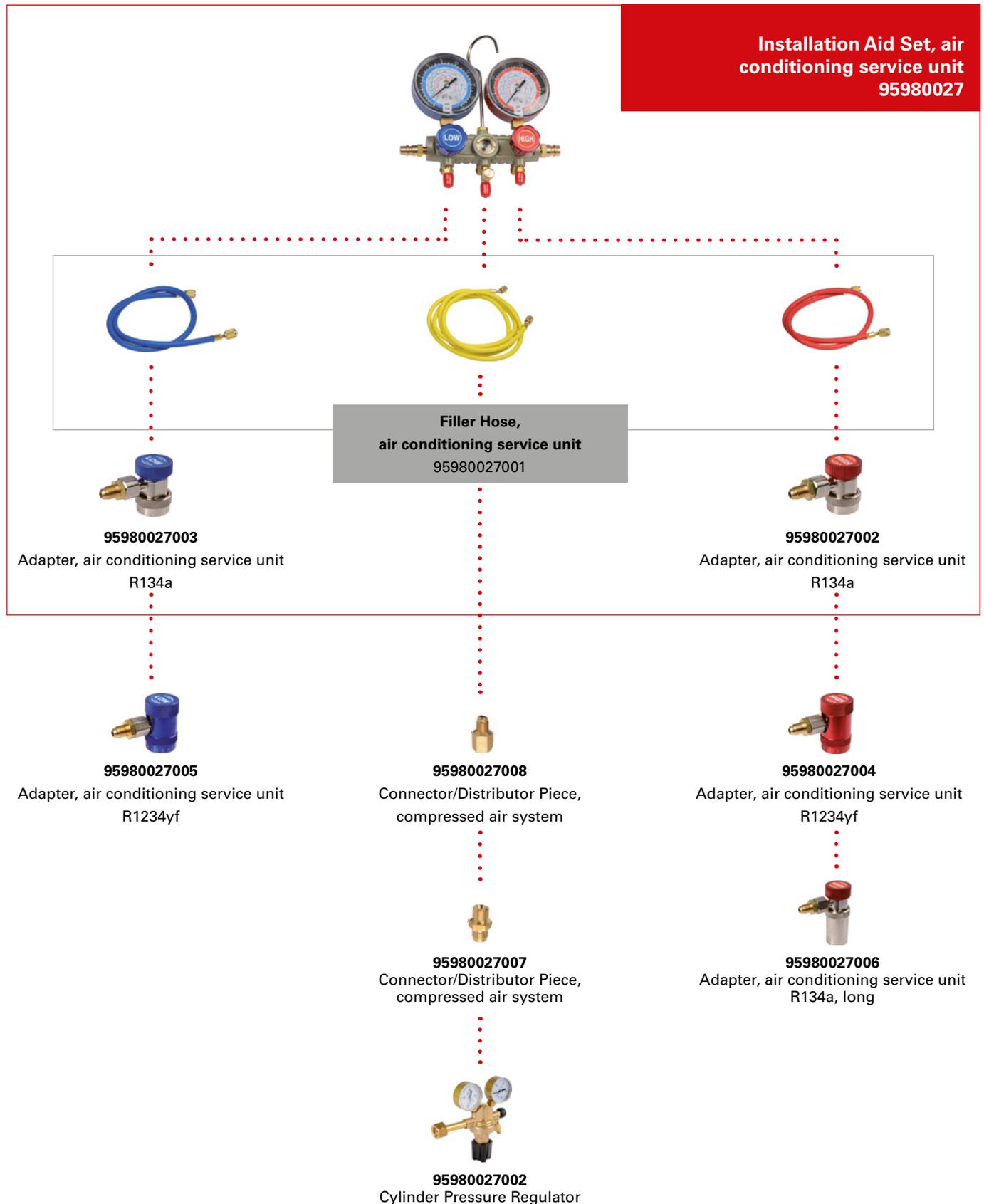
The SelectH₂ family

Our products in an overview

 <p>SelectH₂ Leak search set, air conditioning</p> <p>set content: 9598002001, 95980028001, -002, 95980002, 95980027</p> <p>95980028</p>	 <p>SelectH₂ Installation Aid Set, air conditioning service unit</p> <p>number of manometers: 2 manometer diameter: 80 mm</p> <p>95980027</p>	 <p>SelectH₂ Filler Hose Set air conditioning service unit</p> <p>connecting thread: SAE inner thread: 1/4 Inch</p> <p>95980027001</p>	 <p>SelectH₂ Cylinder Pressure Regulator</p> <p>inlet pressure to 200 bar outlet pressure 1 - 20 bar with left-hand thread for article number: 95980028</p> <p>95980028002</p>
 <p>SelectH₂ Connector/Distributor Piece, compressed air system</p> <p>inner thread: 1/4 Inch outer thread: 1/4 Inch</p> <p>95980027008</p>	 <p>SelectH₂ Connector/Distributor Piece, compressed air system</p> <p>brass double-sided outer thread: 1/4 Inch</p> <p>95980027007</p>	 <p>SelectH₂ Adapter, air conditioning service unit</p> <p>usable for refrigerant R 134a high pressure side</p> <p>95980027002</p>	 <p>SelectH₂ Adapter, air conditioning service unit</p> <p>usable for refrigerant R 134a high pressure side extra long</p> <p>95980027006</p>
 <p>SelectH₂ Adapter, air conditioning service unit</p> <p>usable for refrigerant R 134a low pressure side</p> <p>95980027003</p>	 <p>SelectH₂ Adapter, air conditioning service unit</p> <p>usable for refrigerant R 1234yf high pressure side</p> <p>95980027004</p>	 <p>SelectH₂ Adapter, air conditioning service unit</p> <p>usable for refrigerant R 1234yf low pressure side</p> <p>95980027005</p>	 <p>SelectH₂ Sight Glass, coolant analysis</p> <p>Refrigerant: R 134a Refrigerant: R 1234yf Hose Length: 800 mm</p> <p>95980029</p>

Installation Aid Set

Schematic



Practical example

Leak detection with SelectH₂

Evacuation



1 Evacuate the A/C plant using a suitable A/C service station.

Filling with forming gas 95/5



2 Now fill the high-pressure side of the A/C plant. Using the leak detection set extension kit, the high- and low-pressure sides can be filled simultaneously.

Heating up the device



3 The heat-up phase is signalled by the word „HEAT“ and lasts approx. 50 seconds.

Leak detection



4 Feed the gas detector along the top of the hose connections and components at a steady speed. You can read out the respective hydrogen concentration on the display. Rising ppm values indicate a leak.

Locating the leak



5 Leaks are also indicated by means of acoustic and visual signals.

Repair and inspection



6 After repairing the leak, it is recommended that another inspection be carried out using forming gas, followed by a function check.

Filling with refrigerant and testing leak-tightness



7 Then fill the A/C plant with the appropriate refrigerant. Finally, perform a function check.

A/C servicing

Experience leak detection live!

Leak detection and disinfection of A/C systems

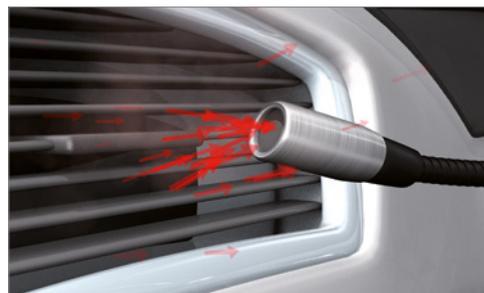
Our selective gas detectors SelectH₂ and SelectH₂ mini offer a time-saving and above all very environmentally friendly alternative for quickly tracking down leaks in A/C plants. In the training course, our workshop field service uses a tester and test model to show how even the most minor leak can be found in no time at all. And so you can enjoy a live demonstration of all the advantages.

Information:

Target group:	Workshops
Duration:	1.5 hours
Training location:	customer premises

Seminar content:

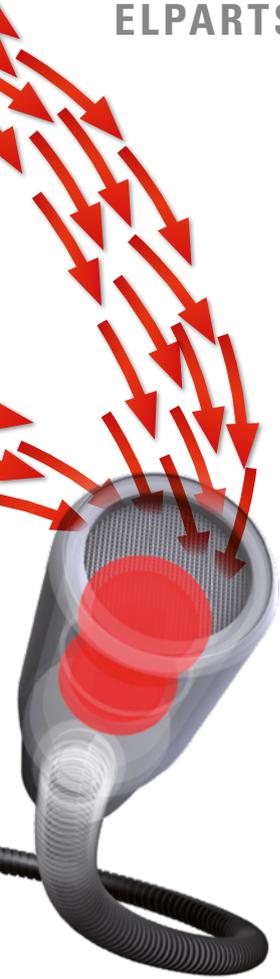
- function of the selective gas detectors in theory and practice
- current state of European Union directives, standards and norms
- special solution for vehicle electrics
- example applications
- the Climate Protection Ordinance and its implementation
- components and their functions
- forming gas and its advantages
- disinfecting the A/C system with AirClean
- function of the AirClean products
- the benefits of AirClean



All the benefits at a glance

Our selective gas detectors SelectH2 and SelectH2 mini offer you a time-saving and above all environmentally friendly option for very quickly pinpointing even the smallest leaks in A/C plants.

- Defective evaporators can be reliably diagnosed by removing the regulator resistor, for example. You can therefore avoid the unnecessary and time-consuming removal of the dashboard caused by false diagnosis.
- False diagnoses caused by oil and petrol vapours can be ruled out as the sensors only selectively respond to the hydrogen contained in the forming gas.
- It is possible to test all closed systems if the forming gas can be introduced to them (e.g. radiator, pneumatic brake systems, etc.).
- The devices are suitable for vehicle dealers or appraisers to use for assessing vehicles which have been involved in accidents. A defective A/C plant can have an impact on the residual value of a vehicle.
- The A/C plants of passenger cars, commercial vehicles and buses alike can all be tested.
- Suitable for both A/C plants with R134a and those with HFO-1234yf.
- Forming gas 95/5 is cheap to procure. In addition, it is environmentally friendly, non-toxic and also very safe due to being non-flammable.
- The products SelectH2 and SelectH2 mini are made in Germany.
- The function of these devices is unique amongst mobile devices worldwide and exclusively available from Herth+Buss.
- High sensitivity and susceptibility of the sensor system, which can even detect concentrations in the ppm range.



Universal repair solution for leaks in the climate control hose

RepAC assortment

Our new RepAC universal repair solution can be used to reconnect faulty aluminium pipes in the air conditioning system or replace entire pipe sections quickly and easily.

A major advantage of the RepAC assortment is that repairs can be carried out directly on site. The range of vehicles that can be transported to the workshop is particularly interesting.

The scope of supply of our assortment includes aluminium pipes with the most common outer diameters in 20 cm length, and the appropriate connecting sets including the screw components and seals. The assortment also includes pipe cutters, deburring tools and non-woven abrasives. The seal rings included are suitable for all standard refrigerants and round off the assortment.



To demonstrate the application on a model, a tutorial is available on our YouTube channel.

Repair Kit, air conditioning
RepAC
Article number: 54272015

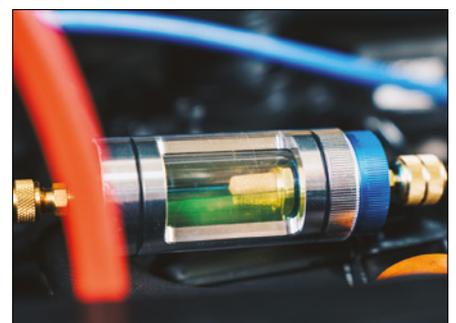
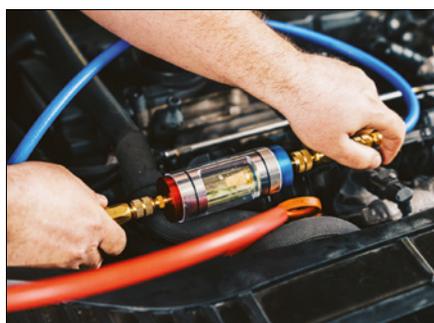
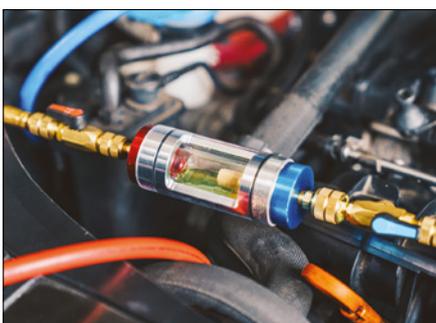


The sight glass with suitable visibility

This sight glass enables visual inspection of the refrigerant or compressor oil and provides valuable information on the condition of the refrigerant. For example, it is possible to check whether chips or other foreign bodies have permeated the system, whether the compressor oil has become discoloured or whether water is pre-

sent. The connections for R134a or R1234yf must be ordered separately.

- with integrated filter
- easily disassembled for cleaning





**AirClean
Klimaanlagenreiniger**

Inhalt: 1.000 ml | 5.000 ml
Arbeitstemperatur 20-25 °C
für Artikelnr.: 95921003

95923008 (1.000 ml)
95923008005 (5.000 ml)

The agent is used to disinfect vehicle A/C systems or the vehicles themselves with the help of the special AirClean cold nebulisers. It reliably eliminated germs, viruses and bacteria. The disinfection process using AnoKath is based on minerals.



AirClean – Professional A/C disinfection

Completely non-hazardous, highly effective and purely mineral

Our AirClean system (spray gun and A/C system cleaner) available from the Elparts range disinfects the vehicle interior and its A/C system with a minimum of effort, reducing germs, fungi, viruses and bacteria in the process. AirClean is suitable for all vehicles – from passenger cars to commercial vehicles, motor homes, construction vehicles, tractors, agricultural machinery and refrigerated vehicles. It is also ideal for vehicles that are subject to frequent changes of user, as is the case for fleet management, vehicle rentals and passenger transport (taxis, buses and trains). There are many scenarios where using AirClean makes perfect sense, especially in workshops: before selling a vehicle, after buying a used car, for purging the A/C system of pollen and spores and as an effective measure against mould. What's more, we give workshops the opportunity to perform vehicle disinfection after repairing the A/C system – without significant deployment of personnel and without harming the environment. This is an interesting added benefit for the customer.

What is AirClean and what are its advantages?

AnoKath forms the basis of the AirClean cleaner. The special AirClean cold atomiser is able to generate floating mist from a liquid in conjunction with a compressor. The disinfection using AnoKath is

based on mineral substances. The benefits are obvious: no ozone treatment and therefore no chemistry! Only low material costs are incurred and the time required to perform a disinfection like this is minimal. There is no need to wait after using AirClean: you can continue working inside the vehicle immediately. In other words, there is no danger of contaminating workshop staff members.

How does AirClean work?

The disinfectant can be fed into the car from outside, i.e. through the A/C system's air intake, or from within by setting the device up in the passenger compartment. In addition, the spray gun can be suspended from the inside of the window pane during the process using a handle provided for this purpose. The cold mist is extremely light and floats for a long time. This means that it even gets behind all panels and reliably kills germs, spores, bacteria and viruses in doing so. When the vehicle's air circulation system is running, the active substance is conveyed throughout the vehicle interior and into the A/C system, which is also disinfected in the process. The user is able to determine the path that the mist should take by directing the pistol's outlet and by opening and closing the intake ducts and/or ventilation louvres.



With AirClean, we are expanding our portfolio of A/C system maintenance products. In addition to leak detection, AirClean allows us to offer the option of disinfecting the vehicle and its A/C system without a great deal of effort and without harming the environment. AirClean is suitable for all vehicles, cars, vans, HGVs, mobile homes etc.



**AirClean
Sprühpistole**

Behältervolumen [l]: 1 | 5
Arbeitsdruck [bar]: 3
mit Schlauch
für Artikelnr.: 95923008

95921003 (1 l)
95921005 (5 l)

ALL THE BENEFITS AT A GLANCE



**Become a Herth+Buss
partner workshop**

Have you chosen professional A/C disinfection with our AirClean? Then take the next step and let us help you gain new customers as a workshop!

We will list you as a competent partner for A/C servicing in our workshop directory. This means that end users can see which workshops offer professional A/C disinfection with AirClean in their vicinity. An opportunity for you to win more customers!

Register via the following form and send it to us at info@herthundbuss.com.

We take care of the rest!

**AirClean workshop directory
Registration form**



**AirClean works
on a purely mineral basis**

The active substance does not contain any toxic substances or aggressive chemicals and is 100% biodegradable. Users are not exposed to contamination while working, as the agent is perfectly non-hazardous for people, health and the environment.

AirClean is highly effective

The active substance is proven to be highly effective and reliably eliminates mould, viruses and bacteria.

**AirClean is quick and
easy to use**

A large quantity of mist can be generated in a very short time using the spray pistol. This mist is so fine that it gets into every recess in the vehicle. This enables the entire interior of the vehicle to be filled with aerosol in addition to the A/C system. The time required is around five minutes.

**AirClean is highly
flexible in operation**

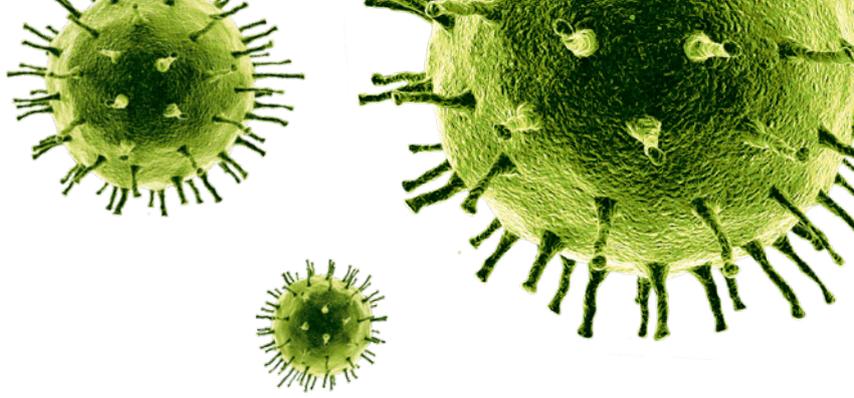
The user is not tied to a certain position thanks to the hand-held device. What's more, various surfaces can be treated more gently or intensively as required. Conventional electric atomisers are unable to offer this kind of flexibility.

**AirClean is
maintenance-free**

The device does not require any kind of maintenance. Simply rinse it out with tap water after use and that's all.

**AirClean guarantees
allergy sufferers
protection and hygiene**

AirClean is not only suitable for disinfecting A/C systems. It can be used anywhere that safety and hygiene are of paramount importance. Allergy sufferers in particular stand to benefit from its effects.



The problem: Mould alert

Why it is necessary to regularly disinfect the A/C system

When moisture in the air condenses

One property of cold objects is that moisture from the ambient air condenses on them. In vehicle A/C systems, this effect is further amplified by the fact that a great deal of air flows through the evaporator. This results in a significant formation of condensation that remains on the evaporator. This becomes very clearly visible in the shape of little puddles that form under the car in warm temperatures when the A/C system is running.

A breeding ground for mould, fungi and bacteria

The whole thing becomes a problem when a vehicle is parked and the moisture lingers in the A/C box for a prolonged period. As we

all know, warm and moist environments are the ideal breeding ground for mould, fungi and bacteria. These multiply and proliferate over the evaporator and into the air ducts. As a consequence, they are transported into the vehicle interior with the air flow and inhaled by the vehicle occupants. For one thing, the infestation causes unpleasant odours, while for another, it can even be dangerous for allergy sufferers and asthmatics.

Conclusion

Regular maintenance and cleaning of the A/C system are therefore essential. Alongside replacing the cabin filter, the A/C system and the interior should also always be disinfected.

Four different types of disinfection have become established in practice. These can be categorised as follows:

Ozone disinfection	Spray disinfection	Hot atomisation (thermal atomisation)	Cold atomisation (aerosol atomisation)
Ozone is generated from the air using an ozone generator. Ozone is a highly reactive form of oxygen. It spreads throughout the space and eliminates all micro-organisms.	The agent is generally sprayed from a bottle onto the surface to be disinfected.	With this process, a chemical solution is vaporised in a device similar to a fog machine and then ejected into the ambient air through a nozzle.	An active agent is very finely atomised using a special nozzle. The fine mist reaches all areas and the agent takes effect in the full space.

Principle of cold atomisation (aerosol disinfection)

AirClean – Professional disinfection!

In the cold atomisation process, an active agent is very finely atomised using a special nozzle. The fine mist reaches the entire interior and the ventilation shafts and unfolds its effect throughout the full space. This not only makes it suitable for disinfecting all surfaces, but also for disinfecting the ambient air. A distinction must be made between two types of aerosol generation for the cold atomisation process.

- Aerosol generation using ultrasound: here, liquid is atomised to form a fine mist using a membrane.
- Aerosol generation using compressed air: here, liquid is atomised to form a fine mist using a spray pistol.

The AirClean system implements the principle of aerosol generation using compressed air.

How does AirClean work?

The solution is conveyed into the vehicle interior through the vehicle window using a compressed-air hose. The cold mist floats in the air for a while before slowly moving downwards and reliably killing off odour particles, germs and spores. At the same time, the ventilation system is integrated into the process and disperses the active substance throughout the vehicle interior and into the A/C system, which is also disinfected. The direction that the mist should travel in can be adjusted as required.

Do you have any more questions?

How long can the disinfectant be kept for?

When unopened and when adhering to the prescribed storage conditions, the product can be kept for a maximum of 12 months. Refer to the information on the label. When opened and when adhering to the prescribed storage conditions, the product can be kept for a maximum of 6 months.

Can any type of compressor be used?

Yes, in principle. However, it is recommended to use an oil-free compressor. When using conventional compressors with lubrication, a reliable oil separator and filter must be used. The following must be guaranteed:

Clean compressed air with no rust residues, condensate or oil content. Even the smallest quantities of oil, rust or other impurities may impair the effectiveness of the disinfectant.

- Effective supply quantity >100 l/min
- Set pressure maximum 4 bar
- Compressor must be adequately able to operate continuously

Where should vehicle disinfection be carried out?

Disinfection should be carried out in well-ventilated internal areas or outside (not in the rain) at an ambient temperature of 20-25 °C. Direct sunlight and an internal vehicle temperature of over 25 °C are to be avoided.

What must I pay attention to when disinfecting the A/C system or the vehicle?

The vehicle's cabin filter should be removed prior to disinfection and be replaced by a new one after disinfection has been carried out. The mist should also be fed directly into the air intake ducts in order to ensure adequate distribution of the medium in the A/C system. The vehicle manufacturer's instructions must be observed. In general, the vehicle must always be thoroughly cleaned before disinfection.

How much air-conditioning cleaner is required for each application and each type of vehicle?

The consumption rates for air-conditioning cleaner are approximately as follows:

- Small car: application time 5 minutes; consumption 70 ml
- Mid-range car: application time 10 minutes; consumption 100 ml
- Van/SUV/minibus: application time 12 minutes; consumption 120 ml



Practical example

Ten steps for successful vehicle disinfection

Before starting with the vehicle disinfection with AirClean, you should first clean the vehicle thoroughly as dirt cannot be eliminated by the disinfection process. Only by doing so will you achieve satisfactory results!



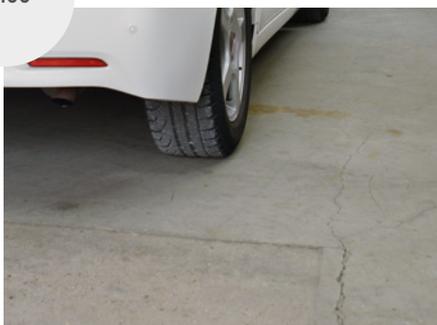
2. Remove the air filter, pollen filter, etc., and dispose of them. Tip: the location of the filters is to be found through the RMI (e.g. InData or InData Pro from Herth+Buss, article number 95990501, -502)



4. Connect the device to an oil-free compressor. The compressor must feature adequate continuous operating ability with an effective supply quantity of >100 l/m and a set pressure of 4 bar.



00:00



1. Position the vehicle in a cool, well ventilated location. It is important to always keep an eye on the temperature range during use! If it is too hot, for example, an insufficient quantity of mist will be able to form in the vehicle.

04:00



3. Fill your spray pistol with the disinfectant. The required quantity varies depending on the vehicle size and the strength of the odour.

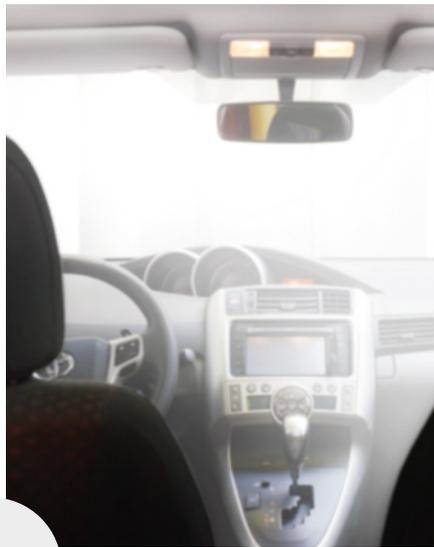


5. Open the bonnet and remove the cabin filter. Clean the pollen filter box if required and disinfect it. Set the ventilation system to level 1 and spray the disinfectant into the interior of the vehicle through the air intake opening of the HVAC system. Feed the agent in until the vehicle interior has become visibly filled with mist. Leave the mist to take effect for approx. 1 minute.

6. Next comes the disinfection of the interior (seats, roof liner, footwell), the A/C system's air intake, the dashboard and the side sections. To do so, position the spray pistol in the vehicle interior. Set the blower to the medium setting at approx. 20 °C, open all air nozzles and set the ventilation to circulation mode. It's even more effective to switch through all of the settings. Doing so will feed the aerosol through all flaps and air ducts, allowing it to reach every last corner. Set up an external power supply for the vehicle electrical system or leave the engine running.



7. Now turn the device off and remove the spray pistol. Close the door and let the ventilation run for a further 2-5 minutes.



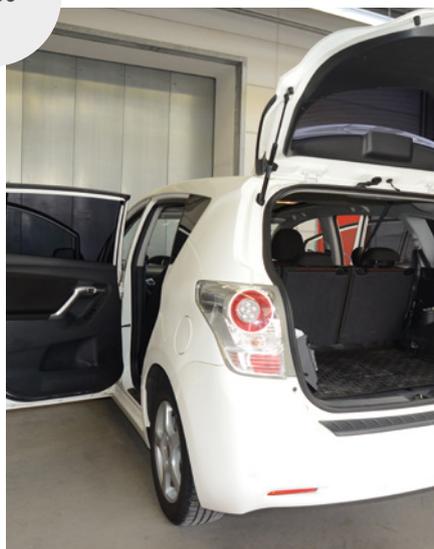
9. You may now install new filters in the vehicle.



10:00



Close the doors and leave the door that the ventilation supply hose is fed through propped open in order to prevent too much of the mist from escaping. Open the compressed air supply and let the disinfectant flow in until an obvious saturation/formation of mist is visible inside the vehicle.



8. Next, open all doors and the boot in order to briefly air out the vehicle.

15:00



10. In just 15 minutes, you have successfully disinfected the A/C system and the vehicle!



Fresh air with our cabin filters

Comprehensive range for Asian passenger cars

The job of the cabin filter is to remove harmful substances from the ambient air and to provide purified air in the vehicle interior. Cabin filters therefore not only increase the comfort of the vehicle occupants, but also help to keep them safe and healthy while driving. It is particularly important for allergy sufferers that a supply of fresh air in the vehicle is guaranteed.

Cabin filters should be replaced once a year, as the residue they collect is not only unhygienic, but also significantly reduces the performance of the filter. In addition to the health risks, this also reduces the efficiency of the A/C system.

We can offer the right cabin filter for each vehicle. While conventional filters filter pollen, dust, soot and wear particles larger than three micrometres from the air flow, activated carbon filters also protect against nasty smells, exhaust gas and ozone.

In addition to cabin filters, our Jakoparts range also includes a wide selection of fuel, oil and air filters for Asian cars. This means that we can guarantee extensive vehicle coverage and the accuracy of fit and allocation quality that set us apart from our competitors.

Cabin filters

Article numbers: J134*

Breathe easy again

With our biofunctional cabin filters

Cabin filters are intended to ensure a permanent supply of fresh air. However, conventional cabin filters only prevent particles such as dust, pollen, soot or odours from getting into the interior of the vehicle. Despite the filter, bacteria or mould can spread in the vehicle interior.

The biofunctional filters bind free allergens and inhibit the growth of bacteria and moulds. The results are improved well-being inside the vehicle and fewer allergic reactions. But how can these extremely small particles be prevented from getting into the vehicle interior? The biofunctional filters are equipped with an additional coating, known as polyphenol coating. This natural layer helps to prevent the growth of mould or bacteria, which impair the respiratory tract of the passengers and can cause allergic reactions.

1 Biofunctional layer

The additional and natural polyphenol coating bonds free allergens. The growth of bacteria and moulds is also prevented.

Filters active:  Allergens  Bacteria

2 Activated carbon layer

The activated carbon layer embedded in nonwoven absorbs harmful gases such as nitrogen oxides, methane, fuels or ozone. It also provides protection against unpleasant odours.

Filters active:  Odor

3 Melt-blown electrostatic layer including protective coating

The high-quality electrostatic layer with protective coating stops even the smallest particles such as fine dust and pollen. Due to its small size, fine dust with a diameter smaller than 2.5 micrometres (PM2.5) is a health risk that can permanently damage the lungs.

Filters active:  Dust  Pollen

1

2

3

Air Filter, passenger compartment
Biofunctional filter
Article number: J134*BF

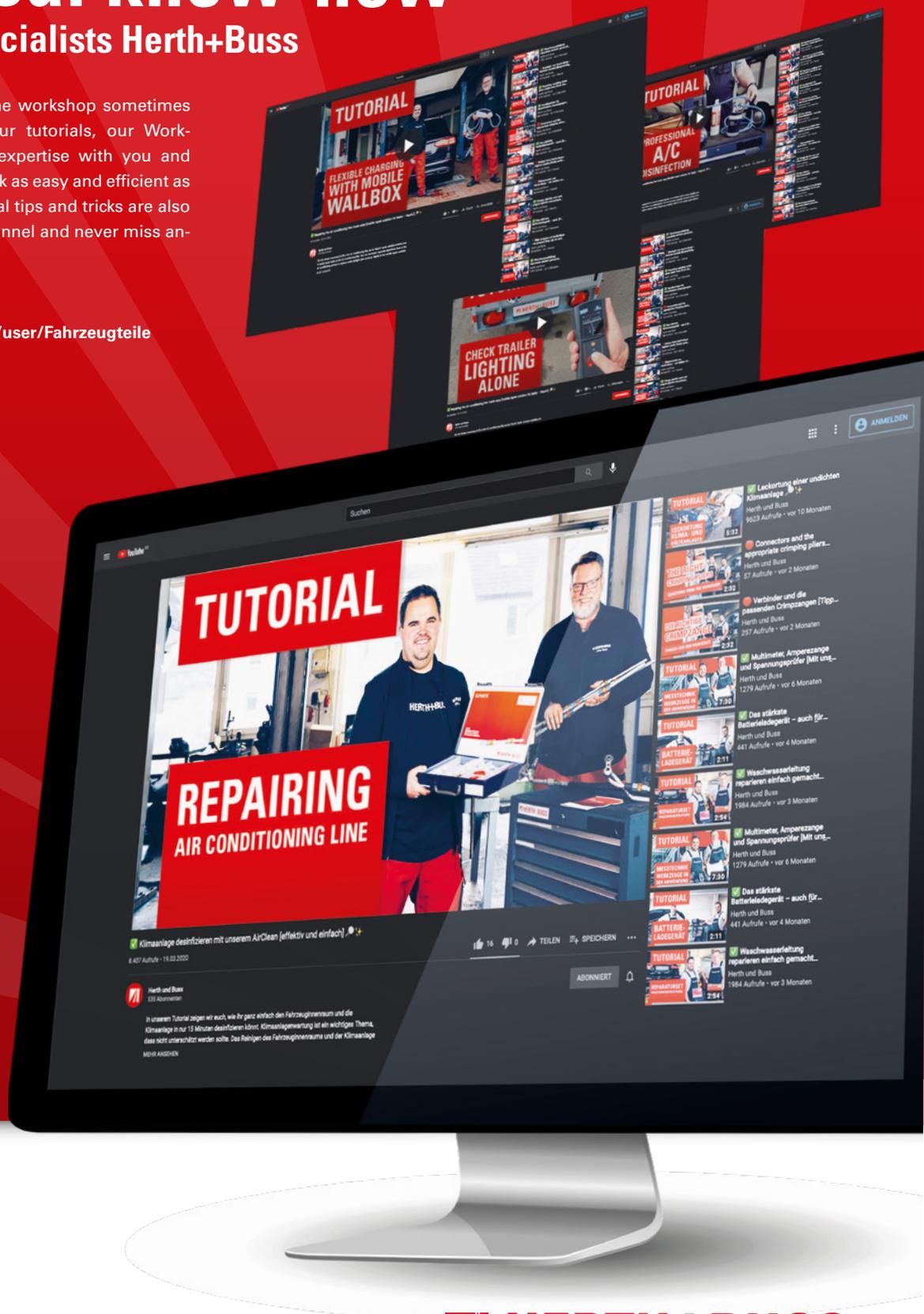


Concentrated technical know-how from parts specialists Herth+Buss

Even the best experts in the workshop sometimes reach their limits. With our tutorials, our Workshop-Buddies share their expertise with you and help to make your daily work as easy and efficient as possible. Of course, practical tips and tricks are also included. Subscribe our channel and never miss another tutorial from us!

Your Workshop-Buddies

<https://www.youtube.com/user/Fahrzeugteile>



Customer/order no.: _____	Official reference: _____
Date: _____	km status: _____

System type: R134a R1234yf R744 (CO₂) Front evaporator Rear evaporator Electrical compressor

Refrigerant analysis: R134a % R1234yf % R744 (CO₂) % Air % HC %

Pressure values: High pressure bar Low pressure side bar at rpm

Temperature: Outside temperature °C Outlet temperature interior °C

Refrigerant quantity: extracted g Target filled g Refrigerant oil: extracted g filled g oil type

Test result OK Test result not OK Repaired

1. General

- 1.1 Read out fault memory
- 1.2 Check software version/update

2. Control instruments/control elements

- 2.1 Switch/control unit
- 2.2 Fan motor function
- 2.3 Interior temperature sensor (A/C automatic)
- 2.4 Air distribution/circulation air function
- 2.5 cabin filter

3. Interior

- 3.1 Temperature (°C) at air outlet nozzles
- 3.2 Odour development

4. Drive belts

- 4.1 State/noise
- 4.2 Voltage

5. Belt Tensioner

- 5.1 Tension roller
- 5.2 Bearing
- 5.3 Noises
- 5.4 Function

6. Belt pulleys, deflection and guide rollers

- 6.1 Adjustment/distance
- 6.2 Noises/state

7. Generator freewheel and torsion vibration damper

- 7.1 State
- 7.2 Noise
- 7.3 Function

8. Compressor component

- 8.1 Magnetic coupling
- 8.2 Belt pulleys/bearing
- 8.3 Overload/belt drive protection
- 8.4 Overpressure safety valve
- 8.5 Electrical connections
- 8.6 Leaks

9. Filter dryer/rechargeable battery

- 9.1 Tightness
- 9.2 Connections/joins
- 9.3 Fastening

10. Pressure switch/pressure sensor

- 10.1 Tightness
- 10.2 Function
- 10.3 Electrical connections

Notes

Test result OK

Test result not OK

 Repaired

11. Condenser

-  11.1 Tightness
-  11.2 Function
-  11.3 Connections/joins

12. Hoses and pipes

-  12.1 Tightness
-  12.2 Connections/joins
-  12.3 Chafing points
-  12.4 Fastening

13. Service connection caps/valves

-  13.1 State
-  13.2 Service connections
-  13.3 Sealing cap/cover
-  13.4 HP/LP valves

14. Cooler/condenser fan

-  14.1 Air duct/fan cladding
-  14.2 Mounting
-  14.3 Function
-  14.4 Noise generation
-  14.5 Electrical connection/relay
-  14.6 Bearing clearance
-  14.7 Visco[®] fan

15. Coolant Ventilation

-  15.1 Tightness
-  15.2 Fastening
-  15.3 Cleanliness/damage
-  15.4 Hoses and clamps
-  15.5 Air duct/covering

16. Coolant

-  16.1 Cleanliness
-  16.2 Coolant expansion tank/cover
-  16.3 Frost protection (°C)

17. Thermostat

-  17.1 Function
-  17.2 Opening temperature

18. Coolant pump

-  18.1 Tightness
-  18.2 Noise development

19. Heater

-  19.1 Heating hoses and clamps
-  19.2 Heating valves

20. Sensors

-  20.1 Electrical connection
-  20.2 Function

21. Evaporator

-  21.1 Tightness
-  21.2 Electrical connection
-  21.3 Condensation drain

22. Expansion valve/throttle valve

-  22.1 Tightness
-  22.2 Connections

Notes

Date
Mechanic/foreman

Stamp

Ihr Herth+Buss Partner:

Herth+Buss Fahrzeugteile GmbH & Co. KG
Dieselstraße 2-4
DE-63150 Heusenstamm

Herth+Buss France SAS
ZA Portes du Vercors, 270 Rue Col de La Chau
FR-26300 Châteauneuf-sur-Isère

Herth+Buss Belgium SRL
Rue de Fisine 9
BE-5590 Achêne

Herth+Buss UK Ltd.
Unit 1 Andyfreight Business Pk
Folkes Road, Lye
GB-DY9 8RB Stourbridge

Herth+Buss Iberica S.L.
C/ Altzutate, 44 (Polígono de Areta)
31620 Huarte Navarra
España

