VEHICLE HEATERS, ADDITIONAL PARTS, INSTALLATION TIPS AND TECHNICAL DATA

A WORLD OF COMFORT

Eberspächer

CONTENTS

ACCESSORIES

1 | HEATING SYSTEMS - AIR OR WATER?

As a basic principle, parking heaters are used to heat the passenger compartments of all kinds of vehicles, without having to rely on the heat emitted by the running engine. This is a well-known fact. **But you are sure to have wondered now and then what is the difference between air and water heaters.**

AIR-BASED PARKING HEATER - EBERSPÄCHER AIRTRONIC:

The **air-based parking heaters** are usually fitted in the cab interior and heat the cab air directly after this has been sucked into the system by the system fan. The trigger response is practically without delay, as the heat generated by a burner in the form of hot gas does not have to be heated up by a water circuit first. Modern units are very quiet with low emissions and are given preference e.g. for keeping driver cabs of trucks or vans at a pleasant temperature even while the vehicle is at a standstill (overnight).

WATER-BASED PARKING HEATER - EBERSPÄCHER HYDRONIC:

The **water-based parking heaters** are compact in design and can be fitted almost everywhere in the engine compartment. They are mainly used in cars where the confined passenger compartment has no space for additional installations. The heat generated by a burner is emitted to the vehicle cooling water. An (additional) electric circulation pump then circulates the heat – even when the engine is off. This automatically activates the passenger compartment fan – everything works as usual in the heating mode. **Water-based heaters therefore not only keep the passenger compartment warm but also perform the additional function of preheating the engine or service water for boats or motor homes.** An engine preheated in this way is much easier to start during the cold months of the year. This reduces the load on the battery which is less efficient in the cold, while also diminishing the amount of exhaust fumes generated on starting the engine, as the higher exhaust temperature brings the catalytic converter up to operating temperature more quickly.

The high-emission cold start phase with its high mechanical loads is drastically reduced, with the oil reaching operating temperature swiftly after starting the engine. This saves fuel and costs, while reducing carbon emissions at the same time.

Generally, both systems are operated with the fuel used by the respective vehicle, taken directly from the fuel tank. Depending on the particular model, they can be activated by a timer, radio remote control or by mobile phone.

1 | HEATING SYSTEMS: HYDRONIC – WATER HEATERS

HYDRONIC 4:

Heat for cab and engine

- Cars (up to 2.0 l capacity)
- Emergency vehicles
- Estate vehicles (with additional thermo-combined valve, only when Hydronic 4 is present; Hydronic 5 is better)
- Small construction and agricultural machinery (only in Germany)
- Motor yachts up to a boat length of approx. 22 ft.

HYDRONIC 5:

Heat for cab and engine

- Cars, estate vehicles (up to 2.5 l capacity; the comfort installation kit is recommended from 2.6 l capacity)
- Emergency vehicles
- Vans, large taxis, luxury vans
- Commercial vehicles, also tandem solutions with air heaters
- Construction and agricultural machinery (only in Germany)
- Motor yachts up to a boat length of approx. 25 ft.

HYDRONIC M8 / M10 / M12:

- Commercial vehicles from approx. 150 kW engine output
- Cargo compartment heating systems
- Military vehicles
- Large agricultural and construction machinery
- Motor yachts up to a boat length of approx. 45 ft.

HYDRONIC L16 / L24 / L30 / L35:

- Coaches and buses
- Large cargo compartments for goods sensitive to heat
- Container superstructures
- Diesel locomotives
- Motor yachts up to a boat length of approx. 72 ft.

1 | HEATING SYSTEMS: AIRTRONIC – AIR HEATERS

AIRTRONIC D2:

Heating comfort for many different uses.


Truck cabs with sleeper berth


Construction and agricultural machinery without engine-dependent heating


Stackers and other working machinery


Electric vehicles


Yachts up to a boat length of approx. 22 ft.

AIRTRONIC D4 / D4 PLUS / B4:

The efficient, compact air heater for the medium range.


Large truck cabs with sleeper berth


Vans, minibuses


Large construction and agricultural machinery


Yachts up to a boat length of approx. 35 ft.

AIRTRONIC D3:

For demanding long-term heating.
Low noise level, low power consumption.


Motor homes


Luxury vans, conference and consultation vehicles


Large trucks, luxury cabs with sleeper berth

AIRTRONIC D5 / B5:

TRS-capable and fully variable room temperature control with preselection.


Vans, garage vehicles, personnel carriers, minibuses (heat up quickly even if doors opened frequently)


Ambulances and paramedic vehicles with special heating up and temperature regulations


Cargo compartment and freight heating, frost protection and dewpoint prevention


Yachts and ships up to boat length of approx. 45 ft.

D8 LC:

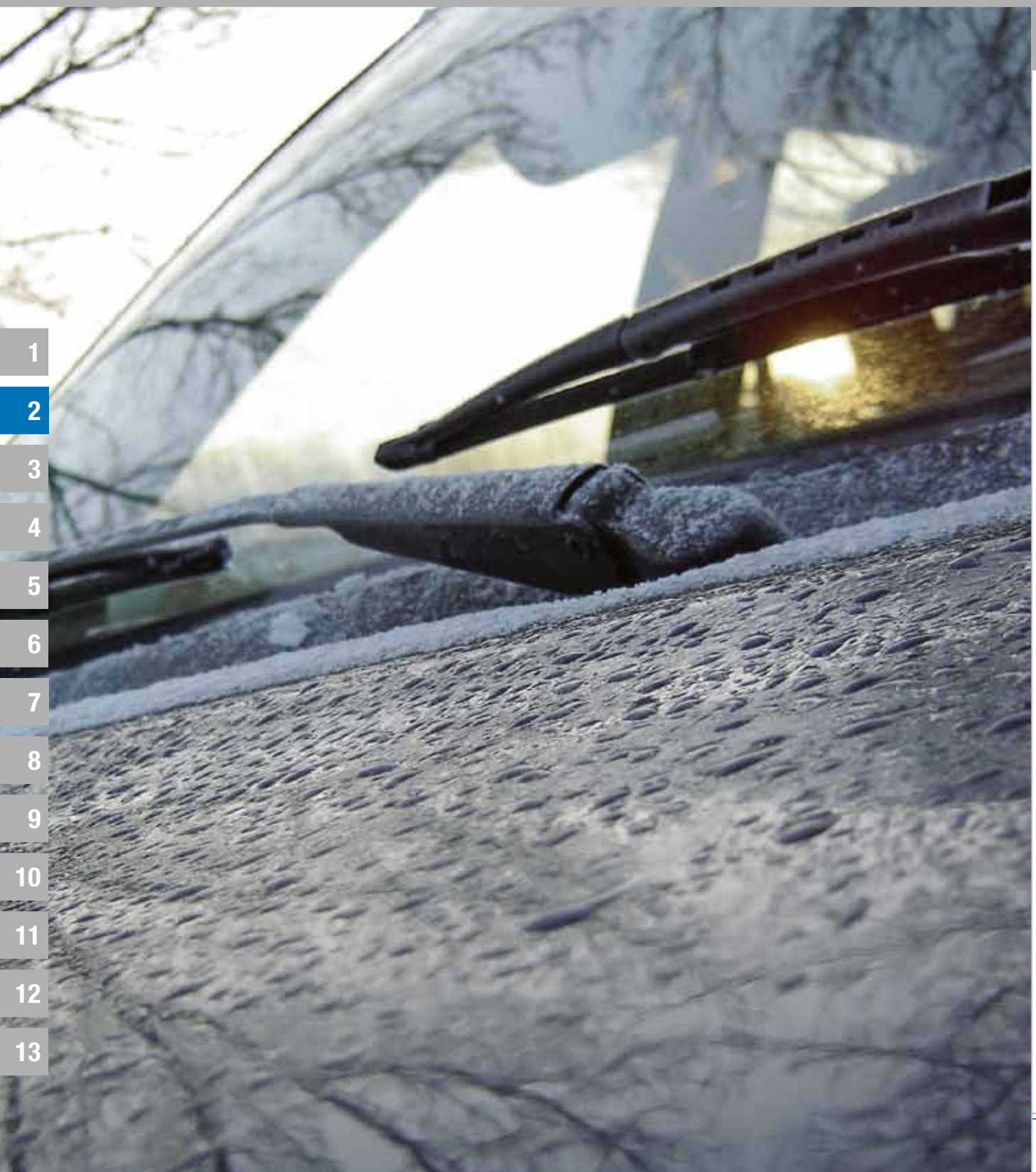
Fully variable room temperature control with preselection.


Large cargo compartments, containers

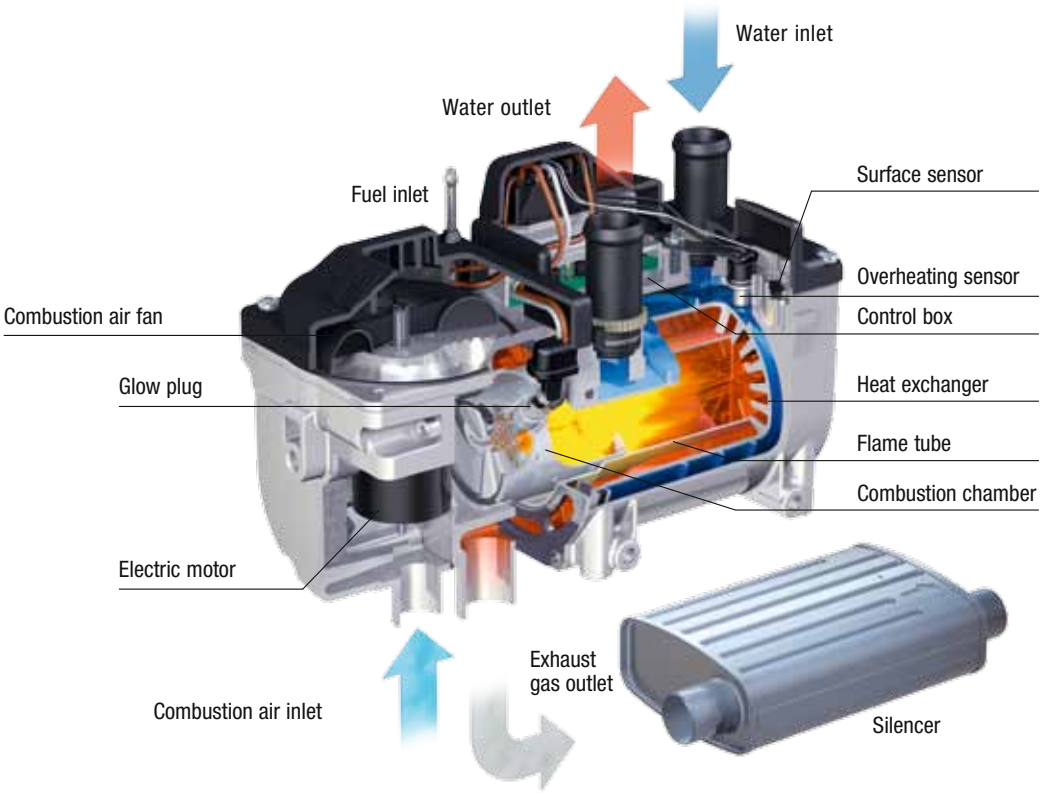

Large personnel carriers


Coaches and buses


Ships up to boat length of approx. 62 ft.



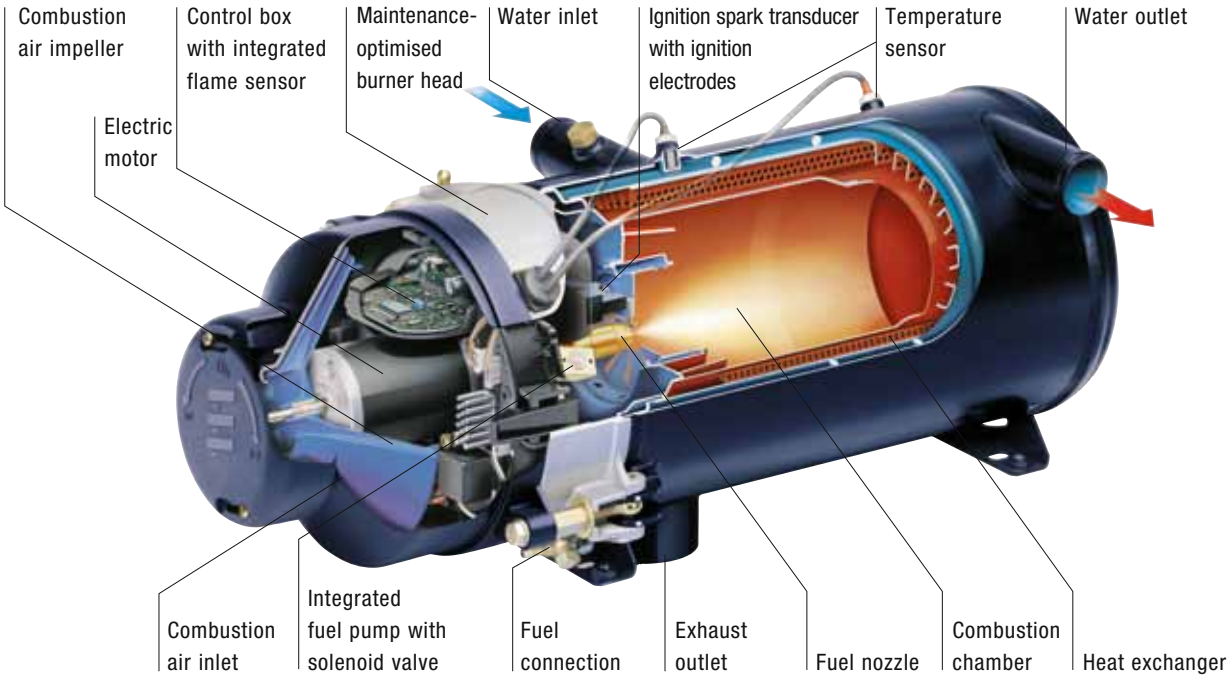
2 I HYDRONIC: TECHNICAL ASPECTS



DESCRIPTION OF FUNCTIONS FOR HYDRONIC, HYDRONIC 2 AND HYDRONIC M:

- Combustion air is conveyed into the combustion chamber by fan motor and impeller.
- Fuel is taken from the vehicle tank.
- Fuel is conveyed to the combustion chamber by the metering pump (reciprocating pump).
- The glow plug causes the fuel to evaporate on entering the combustion chamber where it mixes with the combustion air to create a flammable fuel/air mixture.
- Once the flame has formed, the glow plug is switched off, the heat is transferred via the heat exchanger to the cooling water and the exhaust is discharged through the heat exchanger.
- The cooling water circulation pump conveys cool water into the heater which is heated by the heat exchanger and subsequently conveyed to the vehicle heat exchanger and combustion engine.

2 | HYDRONIC: TECHNICAL ASPECTS



DESCRIPTION OF FUNCTIONS FOR HYDRONIC L:

- Combustion air is conveyed into the combustion chamber by fan motor and impeller.
- Fuel is pumped by a gear pump from the vehicle tank and pressure is built up against the closed solenoid valve.
- The solenoid valve is opened and the fuel is atomised through the fuel nozzle into the combustion chamber / flame tube.
- The fuel/air mixture is ignited by the ignition spark transducer.
- Once the flame has been detected by an optical flame sensor, the ignition spark transducer is turned off, the heat transferred via the heat exchanger to the cooling water and the exhaust is discharged through the exhaust silencer.
- The cooling water circulation pump conveys cool water into the heater which is heated by the heat exchanger and subsequently conveyed to the vehicle heat exchanger and combustion engine.

EBERSPÄCHER HYDRONIC					
Heater		Hydronic B4W S	Hydronic B5W S	Hydronic B4W SC	Hydronic B5W SC
Scope of supply		Heater OR complete package*	Heater OR complete package*	Heater OR complete package*	Heater OR complete package*
Technical designation		Hydronic B4W S	Hydronic B5W S	Hydronic B4W SC	Hydronic B5W SC
Order No. **Heater**		20 1852 05 00 00	20 1819 05 00 00	20 1824 05 00 00	20 1820 05 00 00
Order No. **Complete Package***		20 1866 05 00 00	20 1862 05 00 00	20 1861 05 00 00	20 1863 05 00 00
Fuel		Petrol	Petrol	Petrol	Petrol
Voltage	V	12	12	12	12
Heating medium		Water	Water	Water	Water
Control/heating stages		small / large	small / large	small / large	small / large
Heating output	W	1500 / 4300	1500 / 5000	1500 / 4300	1500 / 5000
Fuel consumption	l/h	0.2 / 0.6	0.2 / 0.69	0.2 / 0.6	0.2 / 0.69
Electr. power consum. Operation	W	10 / 35	10 / 37	22 / 48	22 / 50
Electr. power consum. Start	W	110	110	120	120
Water flow rate against 0.1 bar	l/h	850	850	900	900
Lower voltage limit	V	10.2	10.2	10.2	10.2
Upper voltage limit	V	16	16	16	16
Interference suppression class		5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)
Dimensions L x W x H	mm	220 x 86 x 101.5	220 x 86 x 101.5	220 x 86 x 160	220 x 86 x 160
Empty weight	kg	2.3	2.3	2.7	2.7

* Complete package: heater incl. universal installation kit

EBERSPÄCHER HYDRONIC					
Heater		Hydronic D4W S	Hydronic D5W S	Hydronic D4W SC	Hydronic D5W SC
Scope of supply		Heater OR complete package*	Heater OR complete package*	Heater OR complete package*	Heater OR complete package*
Technical designation		Hydronic D4W S	Hydronic D5W S	Hydronic D4W SC	Hydronic D5W SC
Order No. **Heater**		25 2355 05 00 00	25 2217 05 00 00	25 2257 05 00 00	25 2219 05 00 00
Order No. **Complete Package***		25 2418 05 00 00	25 2386 05 00 00	25 2385 05 00 00	25 2390 05 00 00
Fuel		Diesel	Diesel	Diesel	Diesel
Voltage	V	12	12	12	12
Heating medium		Water	Water	Water	Water
Control/heating stages		small / large	small / large	small / large	small / large
Heating output	W	2400 / 4300	2400 / 5000	2400 / 4300	2400 / 5000
Fuel consumption	l/h	0.27 / 0.53	0.27 / 0.62	0.27 / 0.53	0.27 / 0.62
Electr. power consum. Operation	W	10 / 35	10 / 37	23 / 48	23 / 50
Electr. power consum. Start	W	110	110	120	120
Water flow rate against 0.1 bar	l/h	850	850	900	900
Lower voltage limit	V	10.2	10.2	10.2	10.2
Upper voltage limit	V	16	16	16	16
Interference suppression class		5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)	5 (DIN 57879 / VDE 0879 Part 1)
Dimensions L x W x H	mm	220 x 86 x 101.5	220 x 86 x 101.5	220 x 86 x 160	220 x 86 x 160
Empty weight	kg	2.3	2.3	2.9	2.9

* Complete package: heater incl. universal installation kit

EBERSPÄCHER HYDRONIC					
Heater		Hydronic D5W S	Hydronic D5W SC	Hydronic 2 Economy B4S	Hydronic 2 Economy B5S
Scope of supply		Heater	Heater	Heater	Heater
Technical designation		Hydronic D5W S	Hydronic D5W SC	B4S 12V	B5S 12V
Order No. **Heater**		25 2218 05 00 00	25 2147 05 00 00	20 1909 05 00 00	20 1904 05 00 00
Fuel		Diesel	Diesel	Petrol	Petrol
Voltage	V	24	24	12	12
Heating medium		Water	Water	Water	Water
Control/heating stages		small / large	small / large	small / large / power	small / large / power
Heating output	W	2400 / 5000	2400 / 5000	2300 / 4000 / 4400	2300 / 5000 / 5200
Fuel consumption	l/h	0.27 / 0.62	0.27 / 0.62	0.32 / 0.55 / 0.62	0.32 / 0.69 / 0.72
Electr. power consum. Operation	W	10 / 37	23 / 50	12 / 21 / 27	12 / 37 / 40
Electr. power consum. Start	W	110	120	120	120
Water flow rate against 0.1 bar	l/h	950	900	680	680
Lower voltage limit	V	20.4	20.4	10.5	10.5
Upper voltage limit	V	32	32	16	16
Interference suppression class		5 for VHF / SW / MW, 2 for LW	5 (DIN 57879 / VDE 0879 Part 1)	5 (EN 55025)	
Dimensions L x W x H	mm	220 x 86 x 101.5	220 x 86 x 160	214 x 86 x 139	214 x 86 x 139
Empty weight	kg	2.3	2.9	2.4	2.4

EBERSPÄCHER HYDRONIC					
Heater		Hydronic 2 Economy D4S	Hydronic 2 Economy D5S	Hydronic 2 Commercial D5S	Hydronic 2 Commercial D5S
Scope of supply		Heater (with or without VDP)*	Heater (with or without VDP)*	Heater	Heater
Technical designation		D4S 12V DP	D5S 12V DP	D5S 12V C	D5S 24V C
Order No. **Heater**		25 2554 05 00 00	25 2526 05 00 00	25 2506 05 00 00	25 2507 05 00 00
Order No. **Heater with VDP***		25 2558 05 00 00	25 2557 05 00 00	—	—
Fuel		Diesel	Diesel	Diesel	Diesel
Voltage	V	12	12	12	24
Heating medium		Water	Water	Water	Water
Control/heating stages		small / large / power	small / large / power	small / large / power	small / large / power
Heating output	W	2100 / 4100 / 4300	2100 / 5000 / 5200	1200 / 2100 / 4800	1200 / 2100 / 4800
Fuel consumption	l/h	0.26 / 0.5 / 0.52	0.26 / 0.61 / 0.64	0.15 / 0.26 / 0.59	0.15 / 0.26 / 0.59
Electr. power consum. Operation	W	12 / 21 / 27	12 / 37 / 40	5 / 8 / 27	5 / 8 / 27
Electr. power consum. Start	W	120	120	130	130
Water flow rate against 0.1 bar	l/h	680	680	680	1,600
Lower voltage limit	V	10.5	10.5	10.2	20.4
Upper voltage limit	V	16	16	16	32
Interference suppression class		5 (EN 55025)	5 (EN 55025)	5 (EN 55025 / VDE 0879 Part 2)	5 (EN 55025 / VDE 0879 Part 2)
Dimensions L x W x H	mm	214 x 86 x 139	214 x 86 x 139	214 x 86 x 139	214 x 86 x 139
Empty weight	kg	2.4	2.4	2.4	2.4

* VDP = prepressure-resistant metering pump

EBERSPÄCHER HYDRONIC					
Heater		Hydronic M8 Biodiesel	Hydronic M8 Biodiesel	Hydronic M10	Hydronic M10
Scope of supply		Heater	Heater	Heater	Heater
Technical designation		Hydronic M-II (D8W)	Hydronic M-II (D8W)	Hydronic M-II (D10W)	Hydronic M-II (D10W)
Order No. **Heater**		25 2470 05 00 00	25 2471 05 00 00	25 2434 05 00 00	25 2435 05 00 00
Fuel		Diesel and FAME (biodiesel)	Diesel and FAME (biodiesel)	Diesel	Diesel
Voltage	V	12	24	12	24
Heating medium		Water	Water	Water	Water
Control/heating stages		small / medium / large / power	small / medium / large / power	small / medium / large / power	small / medium / large / power
Heating output	W	1,500 / 3,500 / 5,000 / 8,000	1,500 / 3,500 / 5,000 / 8,000	1,500 / 3,500 / 8,000 / 9,500	1,500 / 3,500 / 8,000 / 9,500
Fuel consumption	l/h	0.18 / 0.4 / 0.65 / 0.9	0.18 / 0.4 / 0.65 / 0.9	0.18 / 0.4 / 0.9 / 1.2	0.18 / 0.40 / 0.90 / 1.2
Electr. power consum. Operation	W	35 / 39 / 46 / 55	35 / 39 / 46 / 55	35 / 39 / 60 / 86	35 / 39 / 60 / 86
Electr. power consum. Start	W	200	200	120	120
Water flow rate against 0.1 bar	l/h	1,400	1,400	1,400	1,400
Lower voltage limit	V	10	20	10	20
Upper voltage limit	V	15	30	15	30
Interference suppression class		5 (EN 55025)	5 (EN 55025)	5 (EN 55025)	5 (EN 55025)
Dimensions L x W x H	mm	331 x 138 x 174	331 x 138 x 174	331 x 138 x 174	331 x 138 x 174
Empty weight	kg	6.2	6.2	6.2	6.2

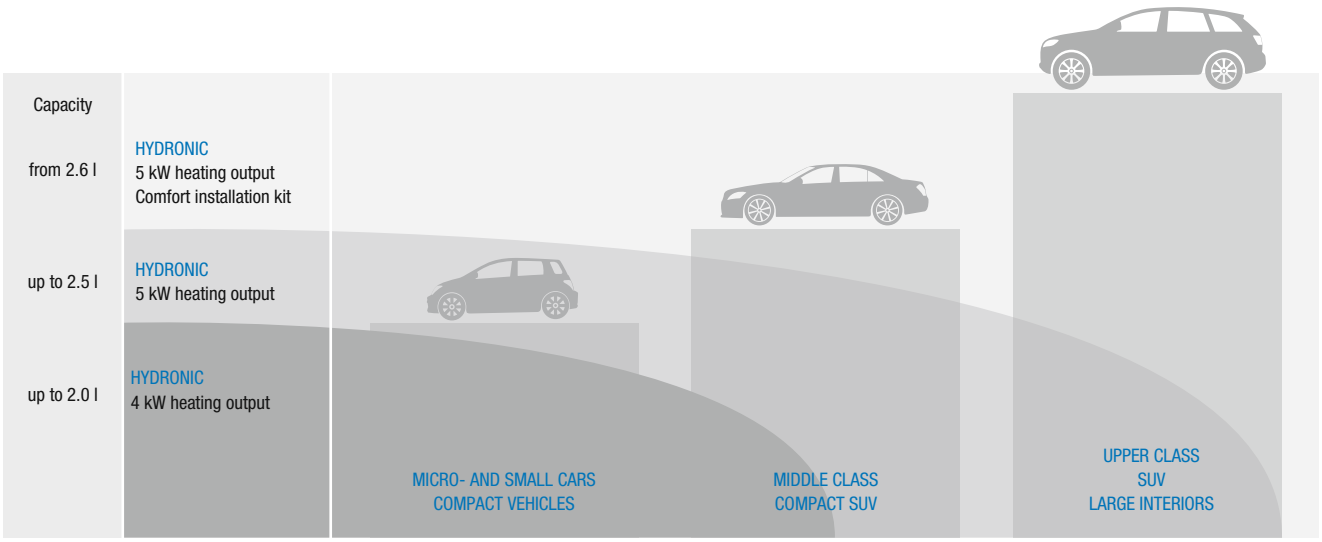
EBERSPÄCHER HYDRONIC			
Heater		Hydronic M12	Hydronic M12
Scope of supply		Heater	Heater
Technical designation		Hydronic M-II (D12W)	Hydronic M-II (D12W)
Order No. **Heater**		25 2472 05 00 00	25 2473 05 00 00
Fuel		Diesel	Diesel
Voltage	V	12	24
Heating medium		Water	Water
Control/heating stages		small / medium 1 / medium 2 / medium 3 / large / power	small / medium 1 / medium 2 / medium 3 / large / power
Heating output	W	1,200 / 1,500 / 3,500 / 5,000 / 9,500 / 12,000	1,200 / 1,500 / 3,500 / 5,000 / 9,500 / 12,000
Fuel consumption	l/h	0.15 / 0.18 / 0.4 / 0.65 / 1.2 / 1.5	0.15 / 0.18 / 0.4 / 0.65 / 1.2 / 1.5
Electr. power consum. Operation	W	34 / 35 / 39 / 46 / 86 / 132	34 / 35 / 39 / 46 / 86 / 132
Electr. power consum. Start	W	120	120
Water flow rate against 0.1 bar	l/h	1400	1400
Lower voltage limit	V	10	20
Upper voltage limit	V	15	30
Interference suppression class		5 (EN 55025)	5 (EN 55025)
Dimensions L x W x H	mm	331 x 138 x 174	331 x 138 x 174
Empty weight	kg	6.2	6.2

EBERSPÄCHER HYDRONIC					
Heater		Hydronic L16	Hydronic L24	Hydronic L30	Hydronic L35
Scope of supply		Heater	Heater	Heater	Heater
Technical designation		Hydronic L-II (HL2-16)	Hydronic L-II (HL2-24)	Hydronic L-II (HL2-30)	Hydronic L-II (HL2-35)
Order No. **Heater**		25 2486 02 00 00	25 2487 02 00 00	25 2488 02 00 00	25 2489 02 00 00
Order No. **Heater Compact**		—	25 2487 05 00 00	25 2488 05 00 00	25 2489 05 00 00
Fuel		Diesel	Diesel	Diesel	Diesel
Voltage	V	24	24	24	24
Heating medium		Water	Water	Water	Water
Heating output	W	16,000	24,000	30,000	35,000
Fuel consumption	l/h	2	2.9	3.65	4.2
Electr. power consum. Operation	W	60	80	105	120
Minimum water flow rate	l/h	1,400	2,000	2,600	3,000
Lower voltage limit	V	20	20	20	20
Upper voltage limit	V	30	30	30	30
Interference suppression class		4 for VHF / SW / LW, 5 for MW	4 for VHF / SW / LW, 5 for MW	4 for VHF / SW / LW, 5 for MW	4 for VHF / SW / LW, 5 for MW
Dimensions L x W x H	mm	600 x 230 x 222	600 x 230 x 222	600 x 230 x 222	600 x 230 x 222
Empty weight**	kg	18	18	18	18

EBERSPÄCHER WATER PUMPS FOR HYDRONIC				
Water pumps		Flowtronic 5000*	Flowtronic 5000 S	Flowtronic 6000 SC
Order No. **Water Pump**		25 2488 26 00 00	25 1818 30 00 00	25 2488 25 00 00
Coolant liquid		Water-glycol mixture with up to max. 50% glycol share	Water-glycol mixture with up to max. 50% glycol share	Water-glycol mixture with up to max. 50% glycol share
Flow rate at 0.2 bar delivery pressure	l/h	5,200	5,200	6,000
Operating pressure	bar	max. 2	max. 2	max. 2
Rated voltage	V	24	24	24
Electrical power consumption	W	104	104	210
Degree of protection		IP5K4	IP54A	IP25 (sealed electronic component)
Dry running		no	no	yes – motor turns off after 45 min
Shaft – impeller connection		Mechanical seal	Magnetic clutch	Magnetic clutch
Empty weight**	kg	2.04	2.2	2.5

* available from week 5 / 2012
** without holder, clamp and coolant liquid

2 | HYDRONIC: SELECTION OF WATER HEATER FOR CARS



INSTALLATION ADVANTAGES:

- Hydronic 4 SC / 5 SC: Time savings during installation.
- Hydronic 4 S / 5 S or Hydronic 2 Economy without VDP (prepressure-resistant metering pump): space-saving heater for confined installation, as water and metering pump can be fitted separately.
- Hydronic 2 Economy VDP (prepressure-resistant metering pump): time-saving installation as tank does not have to be removed. Please refer to the respective installation suggestion to see which vehicles this unit is suitable for, see also on-top options on page 24.
- Hydronic 2 Commercial: fully biodiesel-compatible, long service life and high output range: ideal for commercial vehicles.
- Biodiesel M8, standard M10, Hydronic M12 increases output for larger engines and cabs, e.g. large trucks, minibuses, cargo compartment.
- Hydronic L, 16 to 35 KW, is ideal particularly for buses, trains, boats, cargo compartment.

FUEL COMPATIBILITY:

- **Multifuel E85:** Hydronic 2 B5S with fuel kit (E85 Kit) for heating electric vehicles and multi-fuel vehicles; order number fuel kit: 22 1000 20 31 00.
- **Biodiesel:** Hydronic 2 Commercial (100 %), Hydronic 2 Economy (to 20 %), Hydronic (to 10 %), Hydronic M8 (100 %), Hydronic M10 / M12 (to 20 %).
- **E10:** all water heaters (when installed correctly).

EXPERT TIP FOR INSTALLING THE PREPRESSURE-RESISTANT METERING PUMP: Fuel pressure and fuel temperature must be known. The fuel tank extractor must reach to the ground and no non-return valve may be fitted. Connection directly to the return line is then possible in diesel vehicles. Please also always comply with the technical description of the respective unit.

2 | HYDRONIC: VEHICLE-SPECIFIC ADDITIONAL PARTS

The scope of supply for individual units usually encompasses the actual heater, the fuel metering pump and the water pump. For retrofitting in vehicles for which Eberspächer offers an installation suggestion, in this case a vehicle-specific installation kit (EBS) is needed and possibly an A/C kit.

Heater	▪ Contents ▪ Heater ▪ Water pump ▪ Metering pump	
Vehicle-spec. installation kit	▪ Heater holder ▪ Water hoses ▪ Fuel lines ▪ Cable harnesses ▪ Combustion air hose ▪ Exhaust hose with silencer ▪ Poss. A/C kit	
A/C kit	▪ Ready-made Cable harness ▪ Relay ▪ IPCU (see Service, Options with IPCU, if there is no A/C kit)	
Control unit	▪ EasyStart T / R / R+ / Calltronic	

ILLUSTRATIONS ARE EXAMPLES

2 | HYDRONIC: COMPLETE PACKAGES / UNIVERSAL INSTALLATION KITS

The following table shows the various versions of water heaters in terms of housing form and scope of supply, together with suitable installation kits. In contrast to the individual units, complete packages are supplied with heater (including fuel metering pump and water pump) and universal installation kit. The universal installation kit contains numerous parts necessary for installation (regardless of the vehicle). In this case, other vehicle-specific installation parts are necessary as stipulated in the respective installation suggestion. If Eberspächer does not offer an installation suggestion for a certain vehicle, a parking heater can still be fitted using a complete package (see also next changer "Hydronic – Parts selection for retrofitting", step 4B). The S-unit housing form corresponds to a space-saving version where the fuel metering pump and water pump are fitted externally. In the SC-units, the water pump is generally inside the unit, and the fuel metering pump is as well for diesel heaters. For petrol heaters, the fuel metering pump is generally fitted externally.

Water heaters	Heater	Individual unit	Complete package	Vehicle-spec. EBS poss. A/C kit (new)	Vehicle-spec. EBS (old)	Universal EBS
Hydronic	20 1852 05 00 00	x)		x)		24 9988 00 00 64*
	20 1819 05 00 00	x)		x)		
	20 1824 05 00 00	x)		x)		
	20 1820 05 00 00	x)		x)		
	25 2355 05 00 00	x)		x)		
	25 2217 05 00 00	x)		x)		
	25 2218 05 00 00	x)				25 2218 80 00 00
	25 2257 05 00 00	x)		x)		
	25 2219 05 00 00	x)		x)		
	25 2147 05 00 00	x)				25 2009 80 00 00
	20 1866 05 00 00		x)		x)	
	20 1862 05 00 00		x)		x)	
	20 1861 05 00 00		x)		x)	
	20 1663 05 00 00		x)		x)	
	25 2418 05 00 00		x)		x)	
	25 2386 05 00 00		x)		x)	
	25 2385 05 00 00		x)		x)	
	25 2390 05 00 00		x)		x)	
Hydronic 2 Commercial	25 2506 05 00 00	x)				25 2506 80 00 00 25
	25 2507 05 00 00	x)				2506 80 00 00
Hydronic 2 Economy	25 2558 05 00 00	x)		x)		25 2526 80 00 00
	25 2554 05 00 00	x)		x)		
	25 2557 05 00 00	x)		x)		
	25 2526 05 00 00	x)		x)		
	20 1909 05 00 00	x)		x)		
	20 1904 05 00 00	x)		x)		
Hydronic M	25 2470 05 00 00	x)				25 2435 80 00 00
	25 2471 05 00 00	x)				
	25 2434 05 00 00	x)				
	25 2435 05 00 00	x)				
	25 2472 05 00 00	x)				
	25 2473 05 00 00	x)				

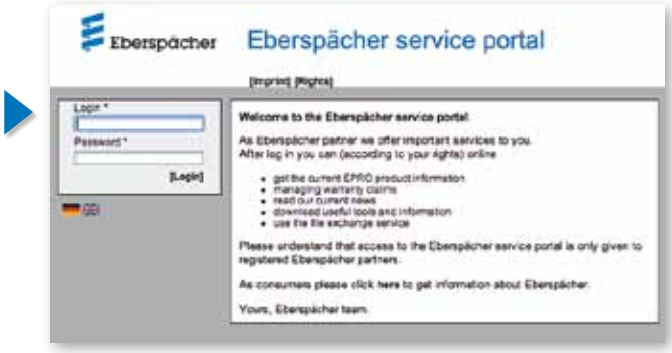
*valid for all 12 V Hydronic water heaters

2 | HYDRONIC: PART SELECTION FOR RETROFITTING IN CARS

INSTALLATION OF WATER HEATER HYDRONIC / HYDRONIC 2 WITH 4 OR 4 KW HEATING OUTPUT:

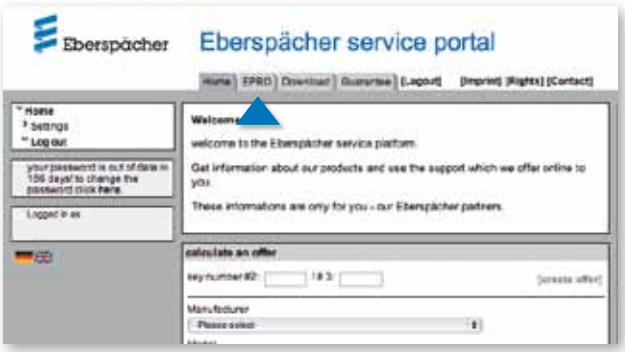
1 | LOG-ON TO THE ONLINE SERVICE PORTAL

Log on with your personal access data (log-in and password) to the Eberspächer Service Portal:
http://partner.eberspaecher.com



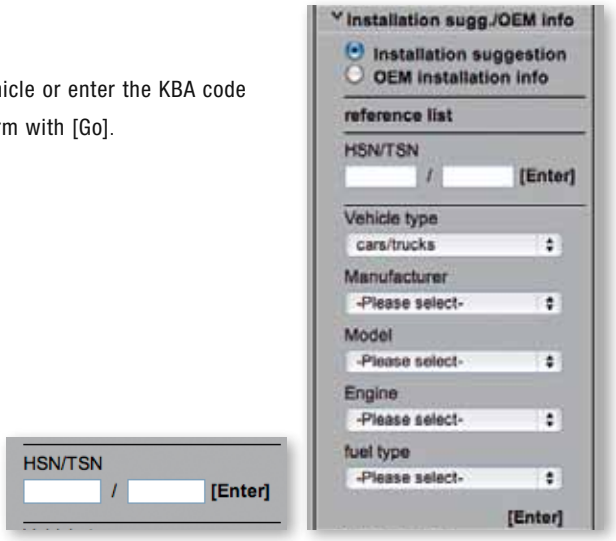
2 | "EPRO" SECTION

Then select the EPRO tab.



3 | ENTER VEHICLE TYPE OR KBA CODE*

Use the drop-down menu in the left window to select the required vehicle or enter the KBA code number (2/3 of it) of the vehicle in the corresponding fields and confirm with [Go].



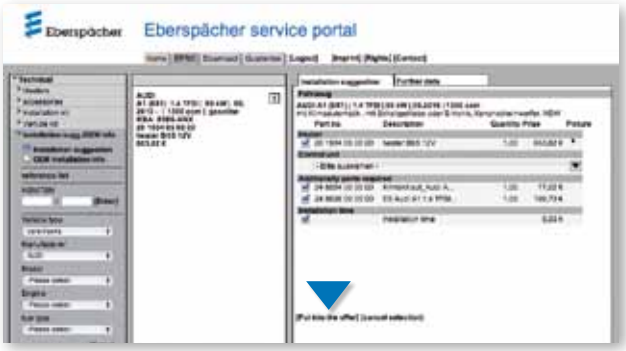
* KBA code is only used in Germany

4A | INSTALLATION SUGGESTION AVAILABLE FOR THE VEHICLE

If an installation suggestion is available for retrofitting in the vehicle, the vehicle model appears in the middle window, stating the recommended heater including price (plus VAT). Click on the vehicle in this window. The installation parts necessary for installation now appear in the right window:

- Recommended heater (incl. water pump and fuel metering pump)
- Control unit (by choice)
- Vehicle-specific installation kit with all parts necessary for mechanical installation
- Possibly A/C kit (for models with automatic A/C)
- Possibly other installation parts

Press the [Include in the offer] to go straight to the offer section, where you can now draw up an offer.



4B | NO INSTALLATION SUGGESTION AVAILABLE FOR THE VEHICLE

EXPERT TIP

If no installation suggestion is available, you will be informed accordingly in the middle window. It can still be possible to retrofit an Eberspächer parking heater in the selected vehicle. The following parts are needed for installation without installation suggestion:

Version 1 (with Hydronic heater):

- Hydronic heater complete package (see Complete packages/ Universal installation kits and Unit selection)
- Control unit (by choice) + possibly other installation parts

Version 2 (with Hydronic-2 heater):

- Hydronic 2 heater incl. water pump and fuel metering pump (see Complete packages/Universal installation kits and Unit selection)
- Universal installation kit for Hydronic 2 + possibly other installation parts
- Control unit (by choice)

2 | HYDRONIC: PART SELECTION FOR RETROFITTING

INSTALLATION WATER HEATER HYDRONIC M WITH 8 KW TO 12 KW HEATING OUTPUT:

Installation of Hydronic M heaters generally depends greatly on the respective application. When planning the installation of these heaters, together with the heater and the universal installation kit, additional installation parts may also be necessary which will have to be ascertained during installation planning. Corresponding additional parts are featured in the Accessories chapter. For example, the installation of heat exchangers and boilers offers numerous parallel heating possibilities.

Installation of a Hydronic M heater generally requires the following parts:

- Heater Hydronic M with 8 kW, 10 kW or 12 kW heating output, 12 or 24 V
- Universal installation kit Hydronic M
- Control unit (by choice)
- Possibly other installation parts depending on the application (see also the Accessories chapter)

See also Complete packages/Universal installation kits, Unit selection and Control units.

INSTALLATION WATER HEATER HYDRONIC L WITH 16 KW TO 35 KW HEATING OUTPUT:

The installation of Hydronic L heaters also depends greatly on the respective application. This is why no universal installation kits are offered for these heaters.

Here again when planning installation, together with the heater additional installation parts will also be needed that have to be ascertained during installation planning. Corresponding additional parts are featured in the Accessories chapter. In this case again, the installation of heat exchangers and boilers also offers numerous parallel heating possibilities.

The heater versions with 24 kW, 30 kW and 35 kW are offered both as individual units and in a compact version. In the compact version, the water pump and the fuel filter with its additional parts are already premounted, to facilitate installation of the heater.

- Heater Hydronic L with 16 kW, 24 kW, 30 kW or 35 kW as individual unit or compact version
- Additional parts for connection to the water circuit
- Additional parts for the fuel supply
- Additional parts for the exhaust system
- Control unit (by choice)

See also Unit selection and Control units.

Please turn to our Technical Hotline for advice and support:
Phone: 0180 5 26 26 26
(14 ct./min. for calls from German landline phones. Calls from mobile phones cost much more)


HYDRONIC

HYDRONIC CONTROL UNITS				
Model	EasyStart T timer	EasyStart R radio remote control	EasyStart R+ radio remote control	Calltronic* telephone remote control
Order number	22 1000 32 8800	22 1000 32 8500	22 1000 32 8000	22 1000 33 8200
ACCESSORIES				
Water heater ON/OFF switch	–	25 1380 89 0400	25 1380 89 0400	25 1380 89 0400
Receiver holder	–	22 1000 51 2100	22 1000 51 2100	–
Room temperature sensor (for air heaters for control during fresh-air mode)	22 1000 32 4900	No	Part of the standard supply	–
EasyStart T console	22 1000 51 3200	–	–	–
Properties/features	Heating/venting ON/OFF, auxiliary unit ON/OFF, program/delete time presets, adjust heating stage – for water/air heaters	Heating/venting ON/OFF, change operating time permanently	Adjust day of the week, time and operating time, heating/venting ON/OFF, auxiliary unit ON/OFF, program/delete time presets, adjust heating output	Heating ON/venting ON, heating OFF/venting OFF, preset/program heating ON (one in 24h, only possibly by SMS), enable venting ON (summer mode), disable venting ON (summer mode)
Description	For installation in vehicle interior, new intuitive menu guidance for user	Basic model, can be combined with EasyStart T	Comfort version, contains all EasyStart T functions	Parking heater can be operated by mobile or landline phone (tone dialling
Preset	Memory capacity for 3 time presets within 7 days	No	Memory capacity for 3 time presets within 7 days	Once in 24 h, only possibly by SMS
Autom. heating time calculation in preset mode	Optional	No	Yes	No
Run-time immediate operation	10 – 120 minutes, adjustable	20, 30, 40 or 60 minutes, adjustable	10 – 120 minutes, adjustable	10 – 120 minutes, adjustable
Parking ventilation	Optional	Optional	Yes	Yes
Temperature display	Optional	No	Yes	No
Feedback	Heater status	Data transfer successful, heater status	Data transfer successful, heater status	Input confirmation
Range	–	up to 1 km, under ideal conditions	up to 1 km, under ideal conditions	unlimited (when network coverage available)
Display	LED display e,g, for time, heating time, temperature in the vehicle, lighting coupled to vehicle lighting	two-colour LED	LED display e.g. for time, heating time, heating/venting, battery status	No
Combination options	**EasyStart T:** The timer with connected heater cable loom (universal version) and the connected diagnosis lead (blue/white) takes on the master function; instead of the diagnosis lead (blue/white) it is also possible to connect up a room or outside temperature sensor for master detection (cf. circuit diagram in the Technical Description)	**EasyStart T:** The diagnosis lead (blue/white) must be connected to the EasyStart T (master); alternatively, a room or outside temperature sensor can be connected to the timer for master detection (see circuit diagram in the Technical Description)	**EasyStart T:** The receiver of the R+ with the connected heater cable loom (universal version) and the connected diagnosis lead (blue/white) takes on the master function; to this end, the room temperature sensor included in the scope of supply of the R+ must be connected to the receiver of the R+ (see circuit diagram in the Technical Description)	Mini controller: No provision is made for combination with control units of the EasyStart family (cf. circuit diagram in the Technical Description)
Permissible heater combinations with a control unit	Unit 1 connected to diagnosis lead, air heater with JE diagnosis (control boxes with second diagnosis lead)	–	Unit 1 connected to diagnosis lead, air heater with JE diagnosis (control boxes with second diagnosis lead)	–

* SIM card: 1.8 V or 3 V SIM card/prepaid card of a mobile phone provider that supports the GSM 900/1800 mobile telecommunications standard in Europe (D/E-network), additional costs (roaming fees) in other European countries, possibly roaming fees in border regions to neighbouring foreign countries because of superimposition in network coverage.

2 | HYDRONIC: CONTROL UNITS

PERMISSIBLE COMBINATIONS OF CONTROL UNITS

	EasyStart T	EasyStart R	EasyStart R+	Calltronic	ON/OFF switch
EasyStart T	X	X	X		
EasyStart R	X				X
EasyStart R+	X				X
Calltronic					X
ON/OFF switch		X	X	X	

2 | HYDRONIC: ON-TOP OPTIONS

AUXILIARY HEATER KIT:

- Order number: 24 8532 00 0000
- Designation: ES auxiliary heater kit Hydronic 2 with EasyStart
- Scope: Hydronic 2 Economy in combination with EasyStart

Parking heater function extended auxiliary heating when driving (= added value). Here the heating is turned on and off depending on the outside temperature while the combustion engine is running. The heating is turned on at an outside temperature of less than approx. 5 °C. The heating is turned off at higher temperatures.

OPTION PARKING VENTILATION:

- The units in the Hydronic, Hydronic 2, Hydronic M and Airtronic product families include the parking ventilation function
- This function is detected automatically together with the EasyStart control units (see EasyStart commissioning instructions)
- For other heaters, please comply with the Technical Description

ALTITUDE KIT*:

For Hydronic, Hydronic 2 and Airtronic (all units in each case) and is needed from altitudes of approx.1,500 m. After the heater has started, the air pressure sensor measures the atmospheric air pressure in cycles and sends the measured values to the heater control box. The control box evaluates the measured values and adjusts the fuel flow quantity of the metering pump to the current atmospheric air pressure if necessary. The reduction in flow quantity begins from approx. 1,400 m; at the same time, this also means that the heating output is reduced by approx. 9% per 1,000 metres of altitude.

* Hydronic M8/M10/M12 is equipped with automatic altitude adjustment. Heating mode possible up to 3,500 m asl.

Check compatibility of heater, air pressure sensor and control unit before installation. (Please note: Reference to "H-Kit" on the heater nameplate)

Technical data:
max. permissible altitude: approx. 3,500 m asl
Measuring range: 600 hPa to 1,150 hPa
Rated voltage: 12 / 24 V
Operating voltage: 8 to 32 V
Dimensions: 76 x 76 x 29 mm
Operating temperature: –40 °C to +85 °C

NAMEPLATES:

1. In this case, reference is made on the right of the heater nameplate to "H-Kit". If this reference is present on the nameplate, the heater is suitable for automatic altitude adjustment.

2. There is a sticker on the heater packaging (box) stating the drawing number of the heater: The last two digits of this number (e.g. "0N") indicate the status of the heater. The table on the next page shows which heater status is compatible with the altitude kit.

Please contact the Technical Hotline if you cannot read the nameplate.

Fig.: Nameplate

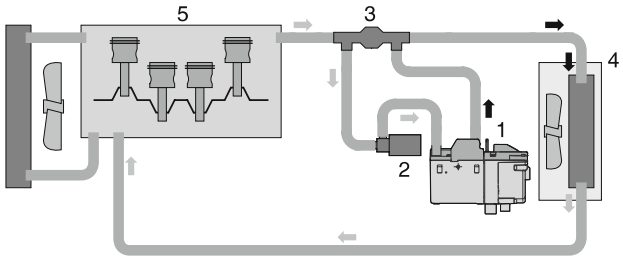
Fig.: Sticker on the heater box

2 | HYDRONIC:
OPTIONAL WATER CIRCUITS, ILLUSTRATED BY HYDRONIC 2

1. INLINE WITH NON-RETURN VALVE:

Advantage of water circuit with inline integration": no loss of efficiency in vehicle heating systems with heater turned off.

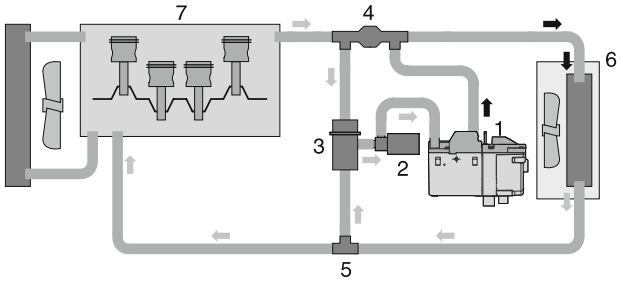
Please note! Non-return valve must be ordered separately, please refer to the additional parts catalogue for the Order No.



1. Heater
2. Water pump
3. Non-return valve
4. Heat exchanger
5. Vehicle engine

2. WATER CIRCUIT WITH COMFORT INSTALLATION KIT:

- Large engines > 2.5 litres and/or large cabs
- Advantage changeover from 70 °C, full flow through engine from 75 °C, installation in engine compartment wherever space available



1. Heater
2. Water pump
3. Thermostat
4. Non-return valve
5. T-piece
6. Heat exchanger
7. Vehicle engine

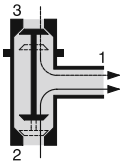
FUNCTION OF THE THERMOSTAT:

At a cooling water temperature < 70 °C – small cooling water circuit:

- Socket 1 – open (to the heater)
- Socket 2 – open (to the T-piece)
- Socket 3 – closed (to the non-return valve)

At a cooling water temperature < 75 °C – large cooling water circuit:

- Socket 1 – open (to the heater)
- Socket 2 – closed (to the T-piece)
- Socket 3 – open (to the non-return valve)



1. Socket, to the heater
2. Socket, to the T-piece
3. Socket, to the non-return valve

Please note! Use the connections Item (1), (2) and (3) – as shown in the sketch – to integrate the thermostat in the cooling water circuit. Based on a diameter of 20 mm.

HEATING CHARACTERISTICS:

Small cooling water circuit: Initially, up to a cooling water temperature of approx. 70 °C, the heater's heat is fed to the vehicle's heat exchanger only – fast heating of the inside of the vehicle.

Large cooling water circuit: If the cooling water temperature continues to rise, the thermostat slowly switches over to the large circuit (full changeover is reached at approx. 75 °C) – heating of the inside of the vehicle and additional engine pre-heating.

2 | HYDRONIC:
OPTIONAL WATER CIRCUITS, ILLUSTRATED BY HYDRONIC 2

3. WATER CIRCUIT WITH THERMO-COMBINATION VALVE:

- Large engines > 2.5 litres and/or large cabs
- Small/compact vehicle, short-distance operation
- Advantage: Changeover at 67 °C, variable low-cost installation as combination valve with five or six connections
- From 67 °C partial flow through engine
- Priority cab designation

INSTALL COMBINATION VALVE WITH 5 CONNECTIONS:

Cut the water flow hose from the vehicle engine to the vehicle's heat exchanger and insert the combination valve. Cut the water return hose from the vehicle's heat exchanger to the vehicle engine and insert the T-piece. Use water hoses to connect the heater and water pump to the combination valve and T-piece – as shown in the sketch.

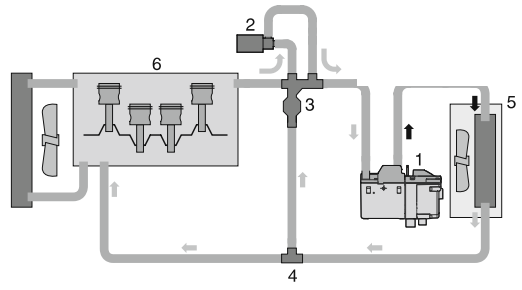
INSTALL COMBINATION VALVE WITH 6 CONNECTIONS:

Cut the water flow hose and the water return hose from the vehicle engine to the vehicle's heat exchanger and insert the combination valve. Use water hoses to connect the heater and water pump to the combination valve – as shown in the sketch.

HEATING CHARACTERISTICS IN PARKING HEATER MODE – SMALL COOLING WATER CIRCUIT:

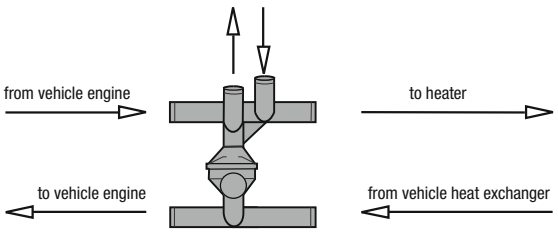
Initially, up to a cooling water temperature of approx. 67 °C, the heater's heat is fed to the vehicle's heat exchanger only – fast heating of the inside of the vehicle.

From a cooling water temperature of approx 67 °C, part of the heater's heat is also passed to the vehicle's engine. This causes additional engine pre-heating, without rapid cooling of the "small cooling water circuit" for interior heating.



1. Heater
2. Water pump
3. Combination valve (5 connections)
4. T-piece
5. Heat exchanger
6. Vehicle engine

Combination valve (6 connections) water pump



HEATING CHARACTERISTICS IN AUXILIARY HEATER MODE – LARGE COOLING WATER CIRCUIT:

While the vehicle's engine is running the heat is uniformly distributed between the vehicle's heat exchanger and the vehicle engine – further shortening of the heating up phase and heating of the inside of the vehicle.

2 | HYDRONIC:
ON-TOP OPTIONS: FUEL SUPPLY

DIESEL:

- Use of Hydronic 2 Economy with prepressure-resistant metering pump
- Advantage: Simple connection to the vehicle fuel system, thus saving installation time
- Prerequisite: Fuel pressure < 2 bar for diesel, no common-rail diesel (because of fuel temperature), no non-return valve in tank connection, return line ends just before bottom of tank

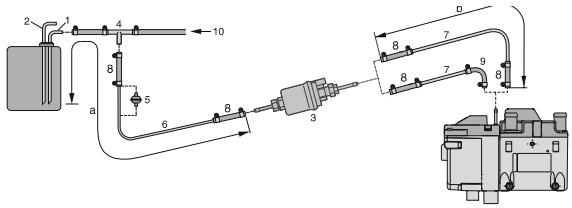
Please note! The following versions of the Hydronic 2 Economy are supplied with the prepressure-resistant metering pump
D4S 12 V: 25 2558 05 00 00
D5S 12 V: 25 2557 05 00 00

PETROL:

- A pressure reducer is still required for petrol applications and a prepressure of > 0.2 bar

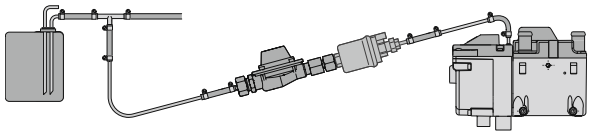
Please note! If the pressure in the fuel pipe is more than 2.0 bar up to max. 4.0 bar, use a pressure reducer (order no. 22 1000 20 08 00) or a separate tank connection.

Fuel extraction using T piece from the fuel return line laid between the vehicle engine to the tank fitting

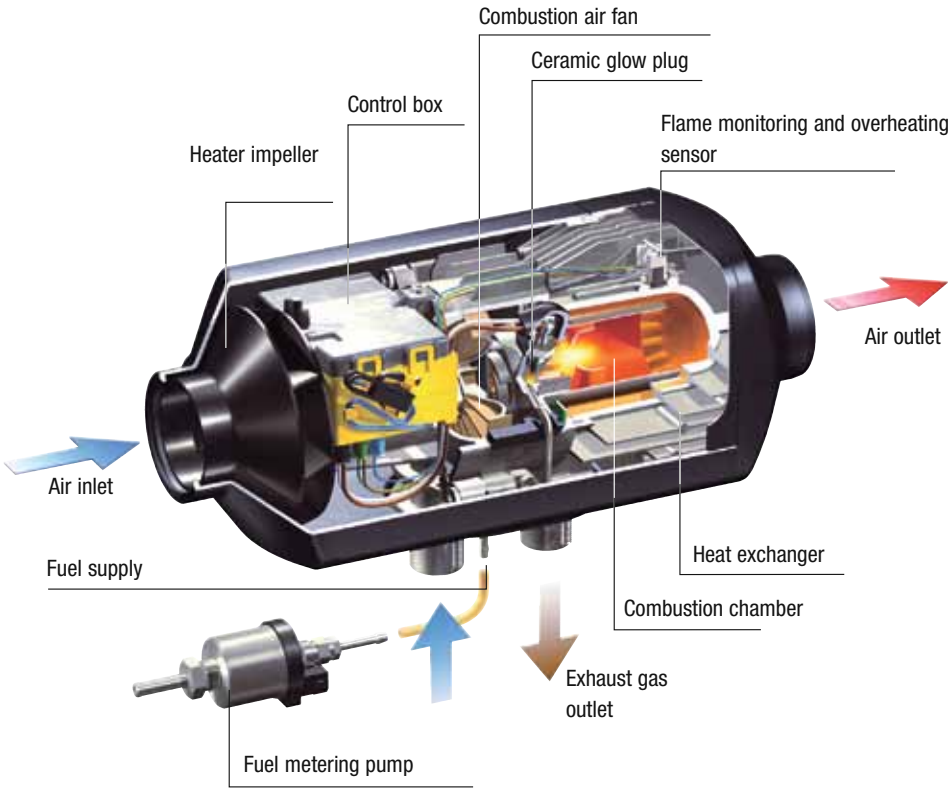


1. Fuel return line from the vehicle's tank fitting
2. Fuel feed line from the vehicle's tank fitting
3. Metering pump (prepressure-resistant to 2.0 bar), marked with a green nameplate
4. T-piece
5. Fuel filter – required for contaminated fuel only
6. Fuel pipe, 4 x 1 (di = Ø 2 mm)
7. Fuel pipe, 4 x 1.25 (di = Ø 1.5 mm, transparent)
8. Fuel hose, 3.5 x 3 (di = Ø 3.5 mm)
9. Elbow, 105°
10. from vehicle tank to engine

Permissible line length intake side: a = max. 2 m
Pressure side: b = max. 6 m



3 | AIRTRONIC: TECHNICAL ASPECTS



DESCRIPTION OF FUNCTIONS FOR AIRTRONIC:

- Combustion air is conveyed into the combustion chamber by fan motor and impeller.
- Fuel is taken from the vehicle tank.
- Fuel is conveyed to the combustion chamber by the metering pump.
- The glow plug (glow plug filament from 5 kW) causes the fuel to evaporate on entering the combustion chamber where it mixes with the combustion air to create a flammable fuel/air mixture.
- Once the flame has formed, the glow plug (or glow plug filament) is switched off, the heat is transferred via the heat exchanger to the cooling water and the exhaust is discharged through the heat exchanger.
- The fan motor and hot air impeller convey cool heating air into the heater where it is warmed up by the heat exchanger and then blown into the vehicle interior.

EBERSPÄCHER AIRTRONIC					
Heater		Airtronic D2	Airtronic D2	Airtronic D3	Airtronic B4
Scope of supply		Heater OR complete package	Heater OR complete package	Heater	Heater
Technical designation		Airtronic (D2)	Airtronic (D2)	Airtronic M (D3)	Airtronic M (B4)
Order No. **Heater**		25 2069 05 00 00	25 2070 05 00 00	25 2317 05 00 00	20 1812 05 00 00
Order No. **Complete Package**		25 2115 05 00 00	25 2116 05 00 00	—	—
Fuel		Diesel	Diesel	Diesel	Petrol
Voltage	V	12	24	12	12
Heating medium		Air	Air	Air	Air
Control/heating stages		off / small / medium / large / power	off / small / medium / large / power	off / small / medium / large / power	off / small / medium / large / power
Heating output	W	– / 850 / 1,200 / 1,800 / 2,200	– / 850 / 1,200 / 1,800 / 2,200	– / 900 / 1,600 / 2,200 / 3,000	– / 1,300 / 2,100 / 3,200 / 3,800
Fuel consumption	l/h	– / 0.1 / 0.15 / 0.23 / 0.28	– / 0.1 / 0.15 / 0.23 / 0.28	– / 0.11 / 0.2 / 0.28 / 0.38	– / 0.18 / 0.29 / 0.46 / 0.54
Electr. power consum. Operation	W	5 / 8 / 12 / 22 / 34	5 / 8 / 12 / 22 / 34	5 / 7 / 10 / 16 / 24	5 / 9 / 15 / 29 / 40
Electr. power consum. Start	W	100	100	100	100
Air flow without counterpressure	kg/h	13 / 40 / 60 / 90 / 105	13 / 40 / 60 / 90 / 105	24 / 60 / 90 / 120 / 150	24 / 85 / 120 / 160 / 185
Lower voltage limit	V	10.2	21	10.5	10.5
Upper voltage limit	V	16	32	16	16
Interference suppression class		Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)
Dimensions L x W x H	mm	310 x 115 x 122	310 x 115 x 122	376 x 140 x 150	376 x 140 x 150
Empty weight	kg	2.7	2.7	4.5	4.5
Ventilation mode		possible	possible	possible	possible

EBERSPÄCHER AIRTRONIC					
Heater		Airtronic D4	Airtronic D4	Airtronic D4 Plus	Airtronic D4 Plus
Scope of supply		Heater	Heater	Heater	Heater
Technical designation		Airtronic M (D4)	Airtronic M (D4)	Airtronic M (D4 Plus)	Airtronic M (D4 Plus)
Order No. **Heater**		25 2113 05 00 00	25 2114 05 00 00	25 2484 05 00 00	25 2498 05 00 00
Fuel		Diesel	Diesel	Diesel	Diesel
Voltage	V	12	24	12	24
Heating medium		Air	Air	Air	Air
Control/heating stages		off / small / medium / large / power	off / small / medium / large / power	off / small / medium / large / power	off / small / medium / large / power
Heating output	W	– / 900 / 2,000 / 3,000 / 4,000	– / 900 / 2,000 / 3,000 / 4,000	– / 900 / 2,000 / 3,000 / 4,000	– / 900 / 2,000 / 3,000 / 4,000
Fuel consumption	l/h	– / 0.11 / 0.25 / 0.38 / 0.51	– / 0.11 / 0.25 / 0.38 / 0.51	– / 0.11 / 0.25 / 0.38 / 0.51	– / 0.11 / 0.25 / 0.38 / 0.51
Electr. power consum. Operation	W	5 / 7 / 13 / 24 / 40	5 / 7 / 13 / 24 / 40	5 / 7 / 16 / 30 / 55	5 / 7 / 16 / 30 / 55
Electr. power consum. Start	W	100	100	100	100
Air flow without counterpressure	kg/h	24 / 60 / 110 / 150 / 185	24 / 60 / 110 / 150 / 185	22 / 55 / 100 / 140 / 175	22 / 55 / 100 / 140 / 175
Lower voltage limit	V	10.5	21	10.5	21
Upper voltage limit	V	16	32	16	32
Interference suppression class		Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)
Dimensions L x W x H	mm	376 x 140 x 150	376 x 140 x 150	376 x 140 x 150	376 x 140 x 150
Empty weight	kg	4.5	4.5	4.5	4.5
Ventilation mode		possible	possible	possible	possible

EBERSPÄCHER AIRTRONIC			
Heater	Airtronic B5	Airtronic D5	Airtronic D5
Scope of supply	Heater	Heater	Heater
Technical designation	Airtronic L (B5)	Airtronic L (D5)	Airtronic L (D5)
Order No. **Heater**	20 1859 05 00 00	25 2361 05 00 00	25 2362 05 00 00
Fuel	Petrol	Diesel	Diesel
Voltage V	12	12	24
Heating medium	Air	Air	Air
Control/heating stages	small / medium / large / power	small / medium / large / power	small / medium / large / power
Heating output W	2,000 / 2,700 / 4,800 / 5,500	1,600 / 2,700 / 4,800 / 5,500	1,600 / 2,700 / 4,800 / 5,500
Fuel consumption l/h	0.27 / 0.37 / 0.65 / 0.75	0.2 / 0.34 / 0.58 / 0.66	0.2 / 0.34 / 0.58 / 0.66
Electr. power consum. Operation W	15 / 30 / 80 / 85	25 / 35 / 80 / 85	25 / 35 / 80 / 85
Electr. power consum. Start W	250	250	250
Air flow without counterpressure kg/h	125 / 180 / 275 / 280	155 / 190 / 275 / 280	155 / 190 / 275 / 280
Lower voltage limit V	10.5	10.5	21
Upper voltage limit V	16	16	32
Interference suppression class	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)	Suppression class 5 (EN 55025)
Dimensions L x W x H mm	530 x 170 x 185	530 x 170 x 185	530 x 170 x 185
Empty weight kg	9.3	9.3	9.3
Ventilation mode	possible	possible	possible

EBERSPÄCHER AIRTRONIC		
Heater	D8 LC	D8 LC
Scope of supply	Heater	Heater
Technical designation	8 L (D8 LC)	8 L (D8 LC)
Order No. **Heater**	25 1890 00 00 00	25 1891 00 00 00
Fuel	Diesel	Diesel
Voltage V	12	24
Heating medium	Air	Air
Control/heating stages	small / large	small / large
Heating output W	3,500 / 8,000	3,500 / 8,000
Fuel consumption l/h	0.4 / 1.05	0.4 / 1.05
Electr. power consum. Operation W	115	115
Electr. power consum. Start W	330	380
Air flow without counterpressure kg/h	310	310
Lower voltage limit V	10	20
Upper voltage limit V	14	28
Interference suppression class	Remote (further measures possible)	Remote (further measures possible)
Dimensions L x W x H mm	653 x 260 x 250	653 x 260 x 250
Empty weight kg	14	14
Ventilation mode	possible	possible

3 | AIRTRONIC: SELECTION OF THE AIR HEATER

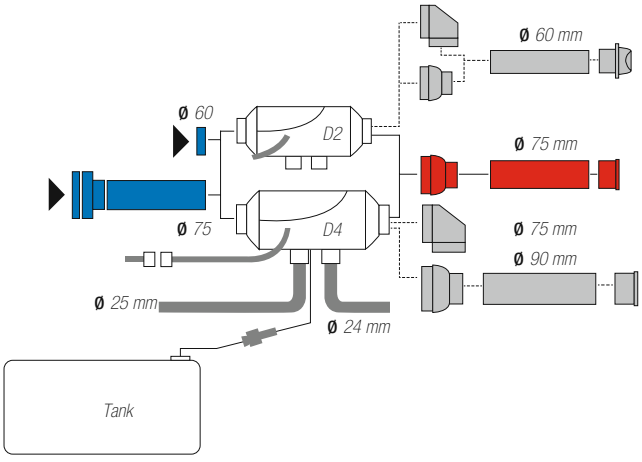
The stated heating output ratings refer to heating up the cold vehicle at a corresponding outside temperature, up to an inside temperature of approx. 20 °C. A smaller heating output is sufficient if the heater is intended merely to hold an existing temperature inside the vehicle. The heating output ratings are only indicative values. The exact heating depend depends also on other ambient conditions (e.g. wind, materials, cab wall, hot air system, etc.).

INDICATIVE VALUES FOR REQUIRED HEATING OUTPUT		Outside temperature		
Example	Room volume	< -15 °C	-15 °C to 0 °C	> 0 °C
Truck cab	< 8 m³	4 kW	3 kW (2 kW)*	2 kW
Minibus	8 – 12 m³	5 kW (4 kW)*	4 kW (3 kW)*	2 kW
Motor home/van	12 – 20 m³	8 kW	6 kW (5 kW)*	4 kW
Yacht / boat	> 20 m³	see documentation: Marine Catalogue		

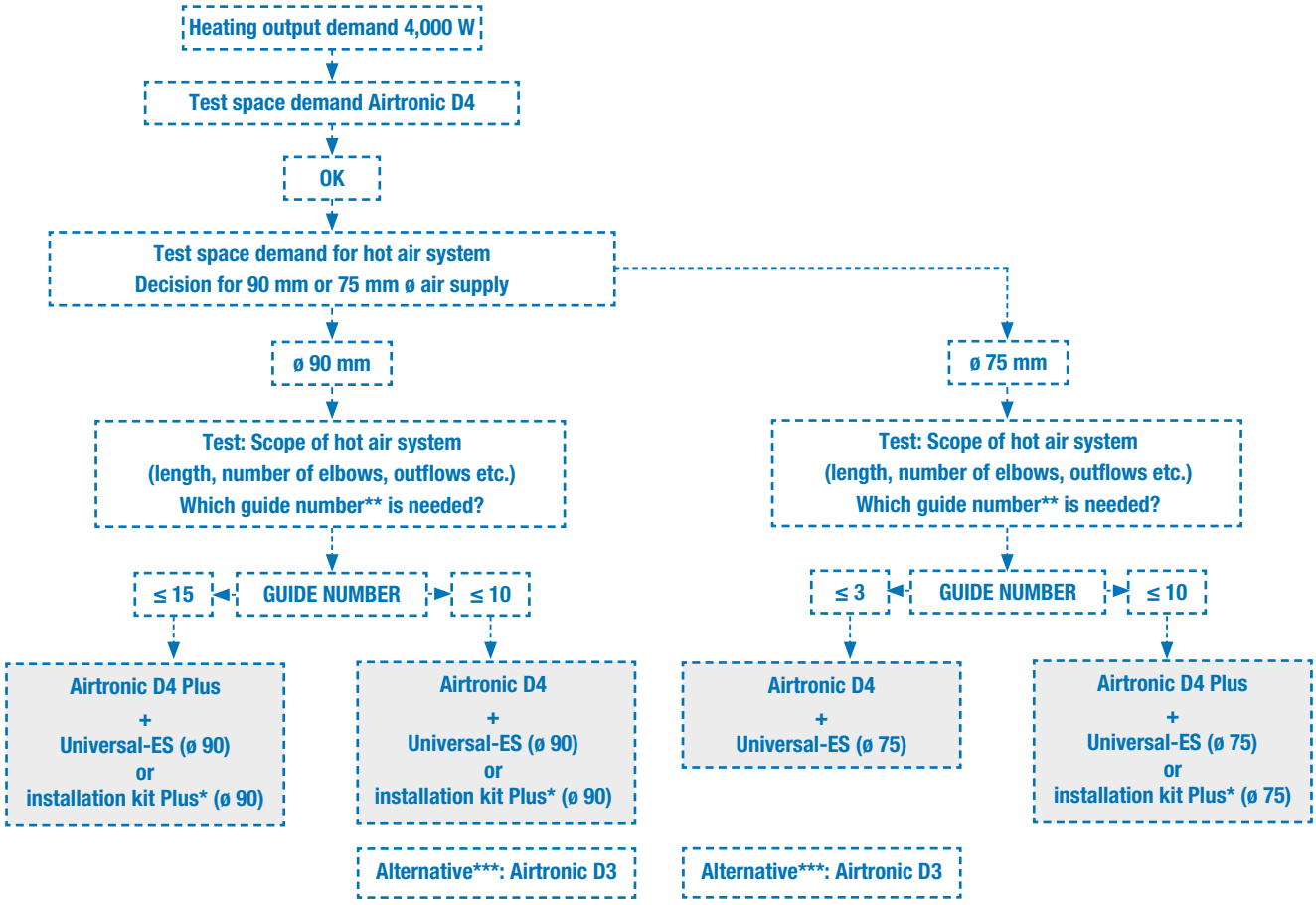
* values (refer to cabs/vehicles with thermal insulation)

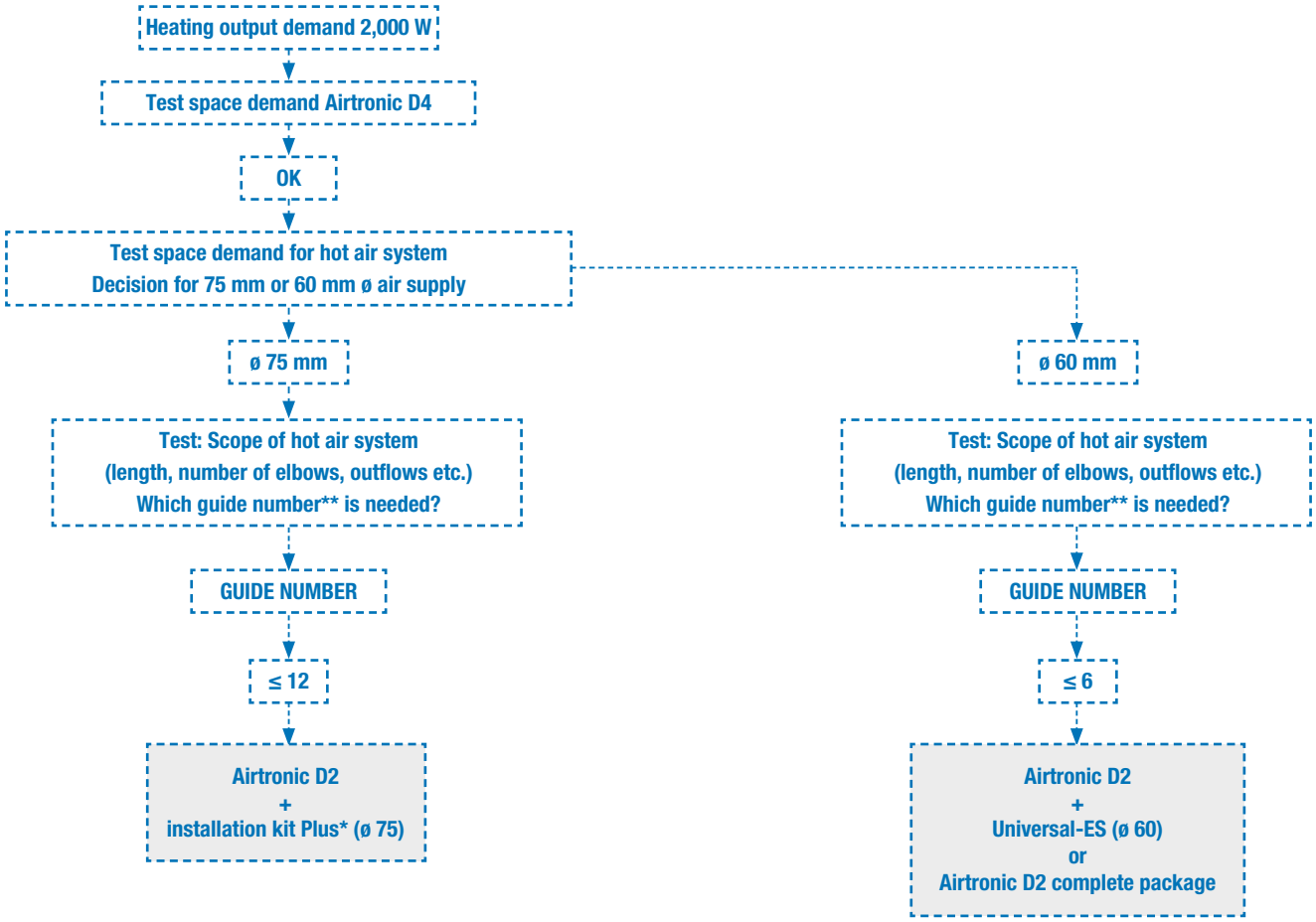
UNIT SELECTION WITH RESPECTIVE ADVANTAGES:

- **Airtronic D2:** Smallest air heater on the market, advantage for confined installation space.
- **Airtronic D4:** Output 4,000 W, air supply 90 mm, for vans/trucks of corresponding size, advantage: high output with acceptable installation space, large range from 900 W (petrol 1,300 W) to 4,000 W.
- **Airtronic D3:** When vehicle well insulated; 3,000 W, 90 mm air supply, advantage: low current 7 – 24 W, therefore quieter, low fuel consumption, large range 900 – 3,000 W.
- **Airtronic D4 Plus:** as substitute for LC and LC compact with air supply 75 mm, generally for 75 mm air supply with long lengths, advantage: high air flow rate with 75 mm, fulfils ambulance standard in many cases.



3 I AIRTRONIC: SELECTION OF THE AIR HEATER





** Installation kit Plus = extended scope of supply*

*** Guide number: Every component in the hot air system (air hose, elbow, outflow etc.) has a part guide number. The sum of these part guide numbers must not exceed the guide number of the heater. Otherwise disruptions will occur when operating the heater, e.g. overheating. The higher the guide number of a heater, the most hot air system components can be connected. A precise description of the guide numbers can be found in Eberspächer's additional parts catalogue.*

**** Option Airtronic D3: lower heating output (3,000 W) but less power consumption + low operating noise => e.g. for well insulated cabs*

3 | AIRTRONIC: INSTALLATION KITS

GENERAL INFORMATION ON THE HOT AIR SYSTEM:

Additional hot air supply parts can be fitted to the heater. Each part has a part guide number and thus reduces the flow of hot air. To give you an opportunity to check whether your planned installation makes an unacceptable reduction in the hot air flow, we have defined a unit guide number for every heater and a part guide number for the hot air supply parts, as stated in the guide number tables:
0 = no increase in temperature,
– = no part guide number.

The sum of part guide numbers of the hot air supply parts connected to the unit must not be larger than the unit guide number, as otherwise the outflow temperature will be unacceptably high with an uneven distribution of heat so that the overheating sensor triggers. If the sum of part guide numbers is larger than the unit guide number, the sum can be reduced by choosing a larger diameter or by changing from a 1-duct to a 2-duct system.

1-duct means:
one hot air duct leads to or from the heater. The part guide numbers stated for "1-duct" apply.

2-duct means:
After the heater, the hot air pipe line branches into two ducts. The part guide numbers stated under "1-duct" apply up to the branching point, while the part guide numbers stated under "2-duct" apply after the branching point. Please comply with the instructions for the air system and ascertaining the sum of part guide numbers from page 42.

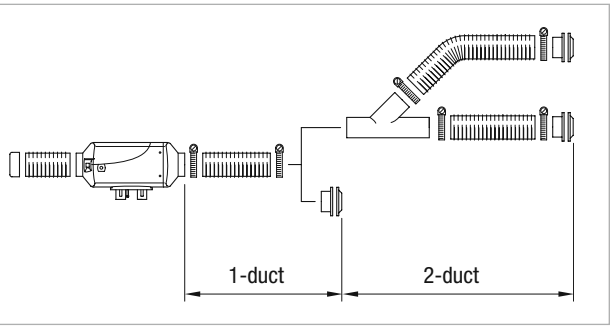
In a 2-duct hot air system or when using several outflows, at least one duct must be unlockable.

The lockable section must not be taken into account in ascertaining the sum of the part guide numbers.

RULE OF THUMB:

Double the cross section or 2 parts placed parallel = 1/4 of the guide number.
Example:
Hose ø 60,
Cross-section area A = 19.6 cm^2, guide number 1.0
Hose ø 75,
Cross-section area A = 44.2 cm^2, guide number 0.25

For smooth, welded pipes, the part guide number is only half of the flexible pipe with the same diameter (i.e. double pipe length).

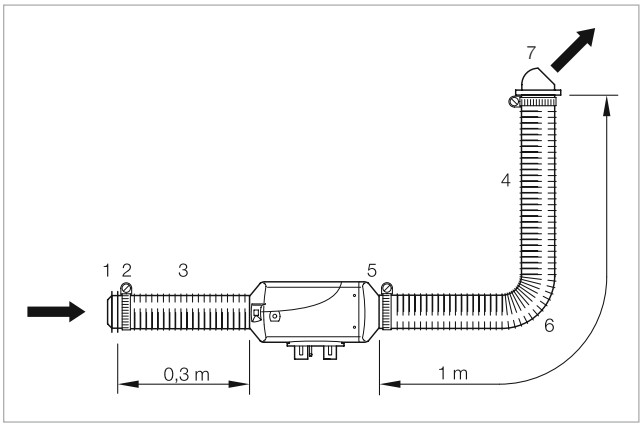


EXAMPLE FOR CALCULATING A HOT AIR SYSTEM:

Airtronic: Unit guide number = 6

No.	Designation	PART GUIDE NUMBER
1	Safety grille	1.7
2	Connection parts ø 60	1.7
3	Flex. pipe ø 60, 0.3 m long	0.3
4	Flex. pipe ø 60, 1.0 m long	1.0
5	Hood straight ø 60	0
6	1 x 90° elbow, flex. pipe	1.2
7	Air outlet, rotatable	1.4
Sum of part guide numbers		5.6

The sum of part guide numbers = 5.6 which does not exceed the unit guide number 6; installation is permitted.



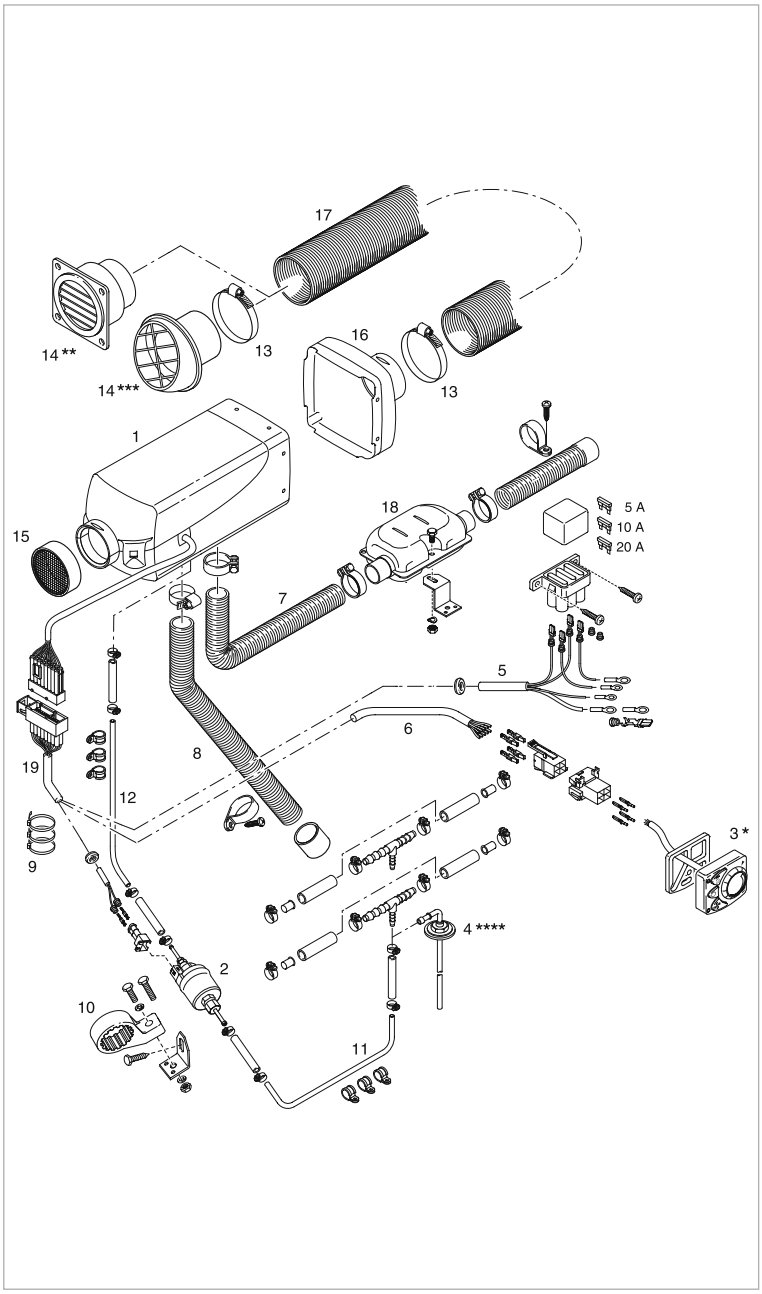
3 | AIRTRONIC: UNIVERSAL INSTALLATION KITS

Air heaters	Heater	Complete package
Airtronic D2, 12 V	25 2069 05 0000	25 2115 05 0000
Airtronic D2, 24 V	25 2070 05 0000	25 2116 05 0000
Airtronic D3, 12 V	25 2317 05 0000	
Airtronic B4, 12 V	20 1812 05 0000	
Airtronic D4, 12 V	25 2113 05 0000	
Airtronic D4, 24 V	25 2114 05 0000	
Airtronic D4 Plus, 12 V	25 2484 05 0000	
Airtronic D4 Plus, 24 V	25 2498 05 0000	

UNIVERSAL EBS	Outlet hood, ø 60 mm Heater guide number 6	Outlet hood, ø 90 mm Heater guide number 10	Outlet hood, ø 90 mm Heater guide number 15	Outlet hood, ø 75 mm Heater guide number 3	Outlet hood, ø 75 mm Heater guide number 8, circulating air mode Heater guide number 10, fresh air mode
Airtronic D2, 12 V	25 2069 80 0000				
Airtronic D2, 24 V	25 2069 80 0000				
Airtronic D3, 12 V		25 2113 80 0000		25 2484 80 0000	
Airtronic B4, 12 V		25 2113 80 0000		25 2484 80 0000	
Airtronic D4, 12 V		25 2113 80 0000		25 2484 80 0000	
Airtronic D4, 24 V		25 2113 80 0000		25 2484 80 0000	
Airtronic D4 Plus, 12 V			25 2113 80 0000		25 2484 80 0000
Airtronic D4 Plus, 24 V			25 2113 80 0000		25 2484 80 0000

PLEASE NOTE:

- *See page 50 for control units.*
- *Parts without a figure no. are small parts and are packed in a bag.*
- *If any other parts are required for installation, see page 74.*
- *Information about unit guide numbers see page 42.*



HEATER – SCOPE OF SUPPLY:	
1	Airtronic heater
2	Metering pump
COMPLETE PACKAGE – SCOPE OF SUPPLY:	
1	Airtronic heater
2	Metering pump
–	Installation kit with outlet hood ø 60 mm
3	Mini controller
4	Tank extractor – only contained in the complete package 25 2116 05 00 00
UNIVERSAL INSTALLATION KIT – SCOPE OF SUPPLY:	
5	Lead harness plus / minus
6	Lead harness, control
7	Flexible exhaust pipe
8	Combustion air hose
9	Cable tape
10	Holder, metering pump
11	Pipe, 6 x 2
12	Pipe, 4 x 1.25
13	Hose clip, 2x
14	Air outlet, rotatable
15	Grille
16	Hood
17	Flexible pipe
18	Exhaust silencer
19	Cable harness, heater

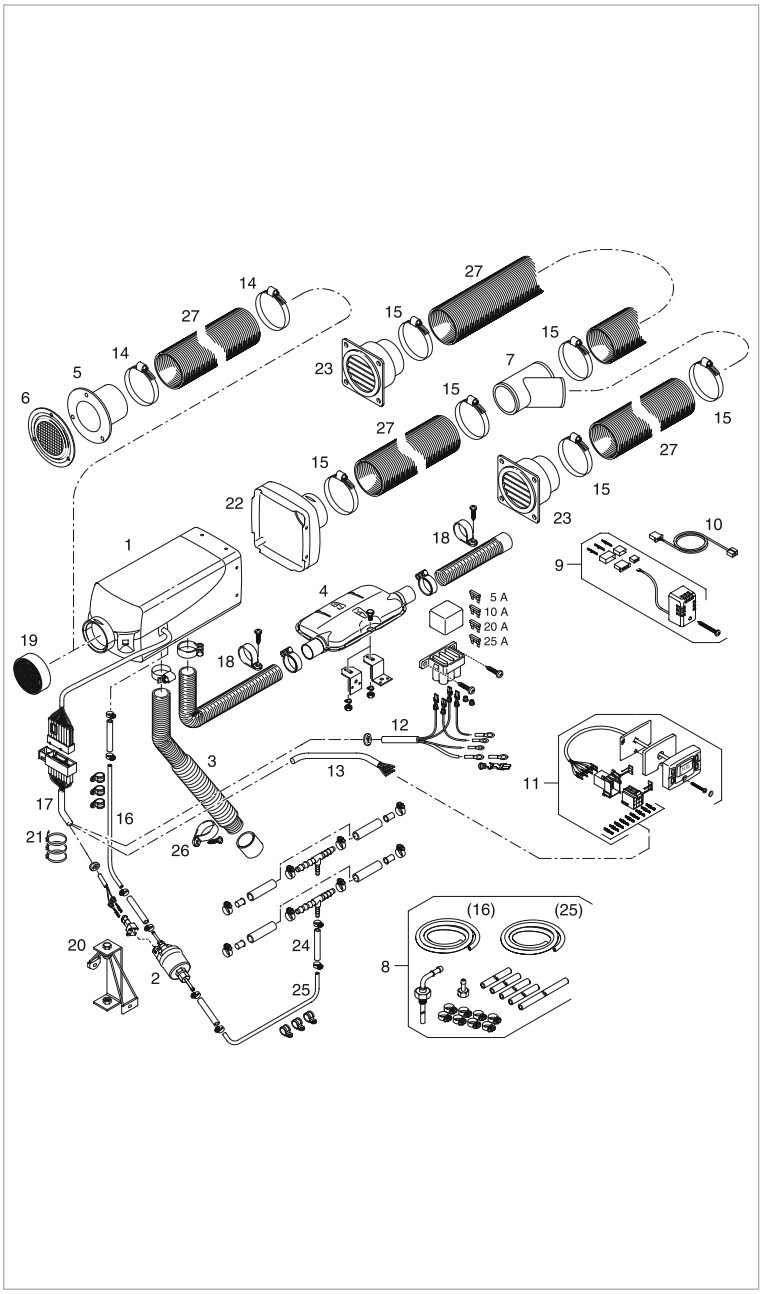
3 | AIRTRONIC: INSTALLATION KITS "PLUS"

THE INSTALLATION KITS "PLUS" ARE IDEAL PARTICULARLY FOR INSTALLATION IN MOTOR HOMES AND BOATS:

EBS „PLUS“	Outlet hood, ø 75 mm Heater guide number 12	Outlet hood, ø 90 mm Heater guide number 10	Outlet hood, ø 90 mm Heater guide number 15	Outlet hood, ø 75 mm Heater guide number 8, circulating air mode Heater guide number 10, fresh air mode
Airtronic D2, 12 V	25 2069 81 0000			
Airtronic D2, 24 V	25 2069 81 0000			
Airtronic D3, 12 V		25 2113 81 0000		
Airtronic B4, 12 V		25 2113 81 0000		
Airtronic D4, 12 V		25 2113 81 0000		
Airtronic D4, 24 V		25 2113 81 0000		
Airtronic D4 Plus, 12 V			25 2113 81 0000	25 2484 81 0000
Airtronic D4 Plus, 24 V			25 2113 81 0000	25 2484 81 0000

PLEASE NOTE:

- *See page 50 for control units.*
- *Parts without a figure no. are small parts and are packed in a bag.*
- *If any other parts are required for installation, see page 74.*
- *Information about unit guide numbers see page 42.*



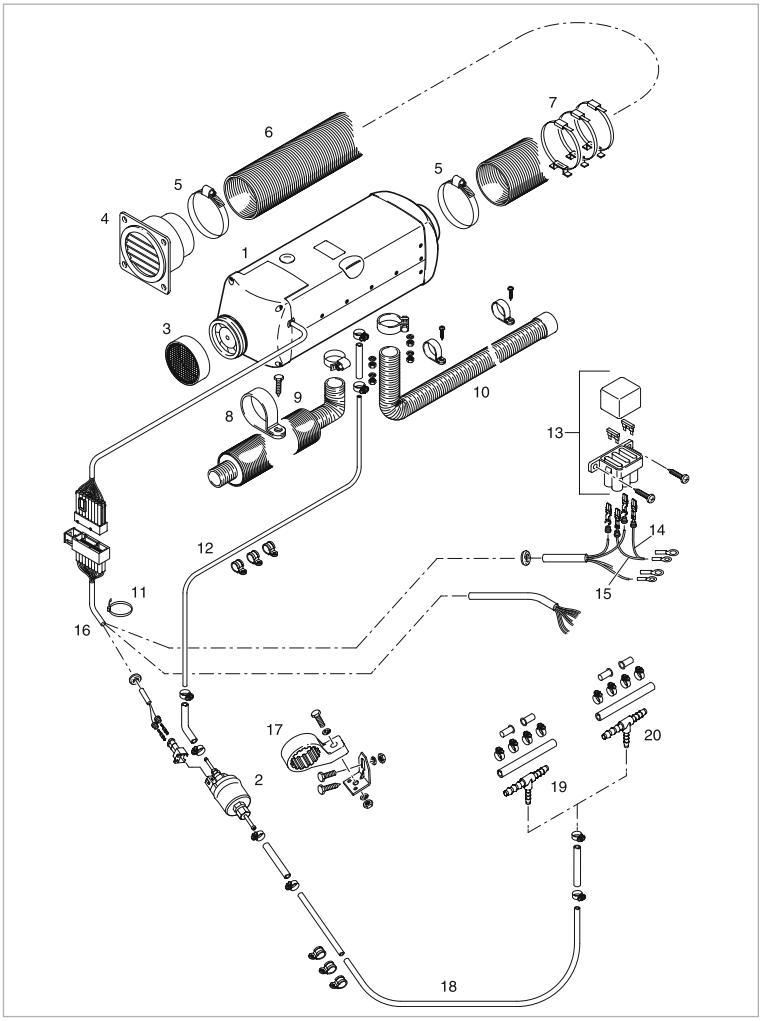
HEATER – SCOPE OF SUPPLY:	
1	Airtronic heater
2	Metering pump
INSTALLATION KIT "PLUS" – SCOPE OF SUPPLY:	
3	Combustion air intake silencer
4	Exhaust silencer
5	Hose connecting socket
6	Grille
7	Y-branch
8	Kit, tank connection
9	Temperature control sensor
10	Cable loom for temperature control sensor
11	EasyStart T timer
12	Lead harness plus / minus
13	Lead harness control
14	Hose clip (2x)
15	Hose clip (6x)
16	Pipe 4 x 1.25 (contained in item 8)
17	Cable harness, heater
18	Flexible exhaust pipe
19	Grille
20	Holder metering pump
21	Cable tape (2 sets)
22	Hood
23	Outflow (2x)
24	Adapter ø 6 / 4
25	Pipe 4 x 1 (contained in item 8)
26	Pipe clip, Ø 50 mm
NOT IN SCOPE OF SUPPLY:	
27	Flexible pipe for hot air system

3 | AIRTRONIC: INSTALLATION PARTS

Air heaters	Heater	Universal EBS
Airtronic L – B5, 12 V	20 1859 05 0000	25 2361 80 0000
Airtronic L – D5, 12 V	25 2361 05 0000	25 2361 80 0000
Airtronic L – D5, 24 V	25 2362 05 0000	25 2361 80 0000

PLEASE NOTE:

- *See page 50 for control units.*
- *Parts without a figure no. are small parts and are packed in a bag.*
- *If any other parts are required for installation, see page 74.*

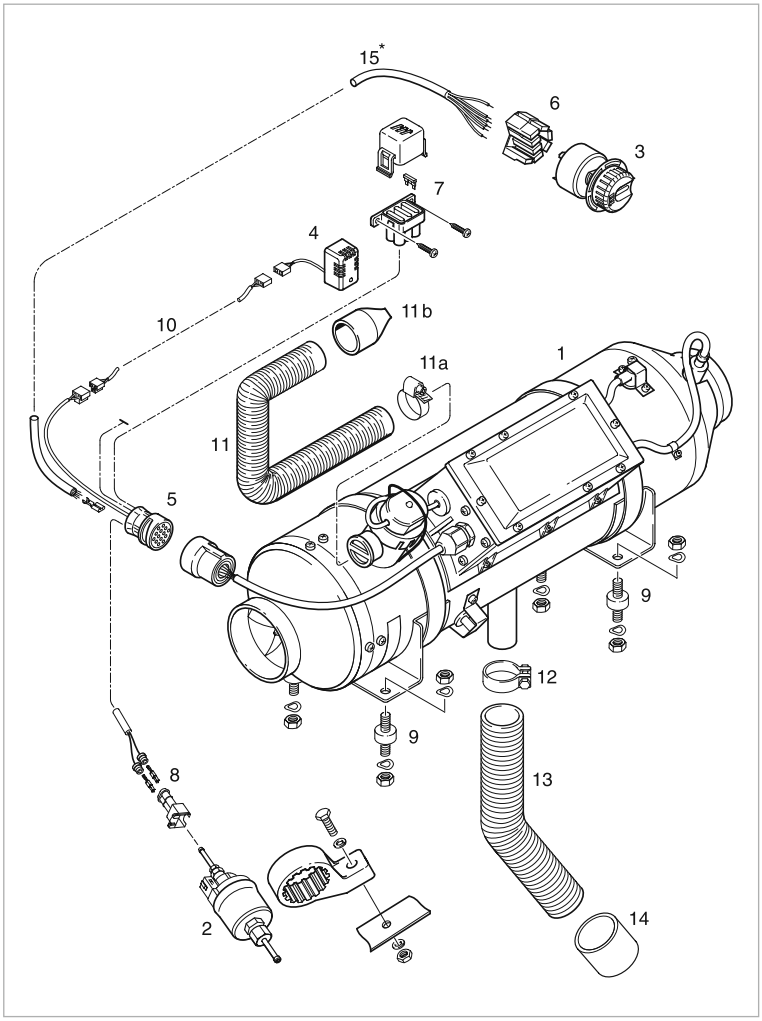


HEATER – SCOPE OF SUPPLY:	
1	Airtronic heater
2	Metering pump
UNIVERSAL INSTALLATION KIT – SCOPE OF SUPPLY:	
3	Grille, Ø 90 mm
4	Outflow
5	Hose clip, Ø 90 mm – 110 mm (2x)
6	Flexible pipe, Ø 90 mm
7	Support (3x)
8	Pipe clip, Ø 50 mm
9	Intake silencer
10	Flexible exhaust pipe, Ø 24 mm
11	Cable tape 200 (2x 10 pcs)
12	Fuel pipe, 4 x 1.25, 7.5 m long
13	Fuse holder
14	Plus cable, 1^2 red
15	Plus cable, 4^2 red
16	Cable harness
17	Holder metering pump
18	Fuel pipe, 6 x 2, 1.5 m long
19	Hose connector 8 / 6 / 8
20	Hose connector 10 / 6 / 10

Air heaters	Heater
D8 LC, 12 V	25 1890 00 0000
D8 LC, 24 V	25 1891 00 0000

PLEASE NOTE:

- *See page 50 for control units.*
- *Parts without a figure no. are small parts and are packed in a bag.*
- *If any other parts are required for installation, see page 74.*



HEATER – SCOPE OF SUPPLY:		
1	Heater, premounted	
2	Metering pump with fitted fuel filter and holder	
3	Control unit	
4	External temperature sensor	
5	Lead harness with connection parts	
6	Receptacle housing with connection parts	
7	Flat fuse with fuse holder	
8	Receptacle housings with receptacles and seals (2x)	
9	Metal rubber buffer with fastening parts (4x)	
NOT IN SCOPE OF SUPPLY:		
10	Lead harness, temperature sensor	25 1482 89 4000
11	Combustion air hose	10 2114 25 0000
11a	Hose clip	10 2067 03 2050
11b	End sleeve for combustion air hose	25 1480 89 0400
12	Flexible exhaust pipe LW42	360 61 381
13	Pipe clip for flex. exhaust pipe LW42	152 05 005
14	End sleeve for flex. exhaust pipe LW42	22 1000 40 0200
–	Exhaust pipe (rigid)	047 05 044
15*	Lead harness, control unit	

* to be produced with the 5 m long lead harness (order no. 22 1000 30 0300). Disconnect the existing plugs at the cable loom. Prepare the cable strands for fitting the receptacles and fasten the receptacles. The receptacles are included in the scope of supply. Connect cable loom to the plug of the cable loom (5) and to the receptacle housing of the control unit (6) according to the circuit diagrams at the end of the documentation.

3 | AIRTRONIC: GUIDE NUMBERS

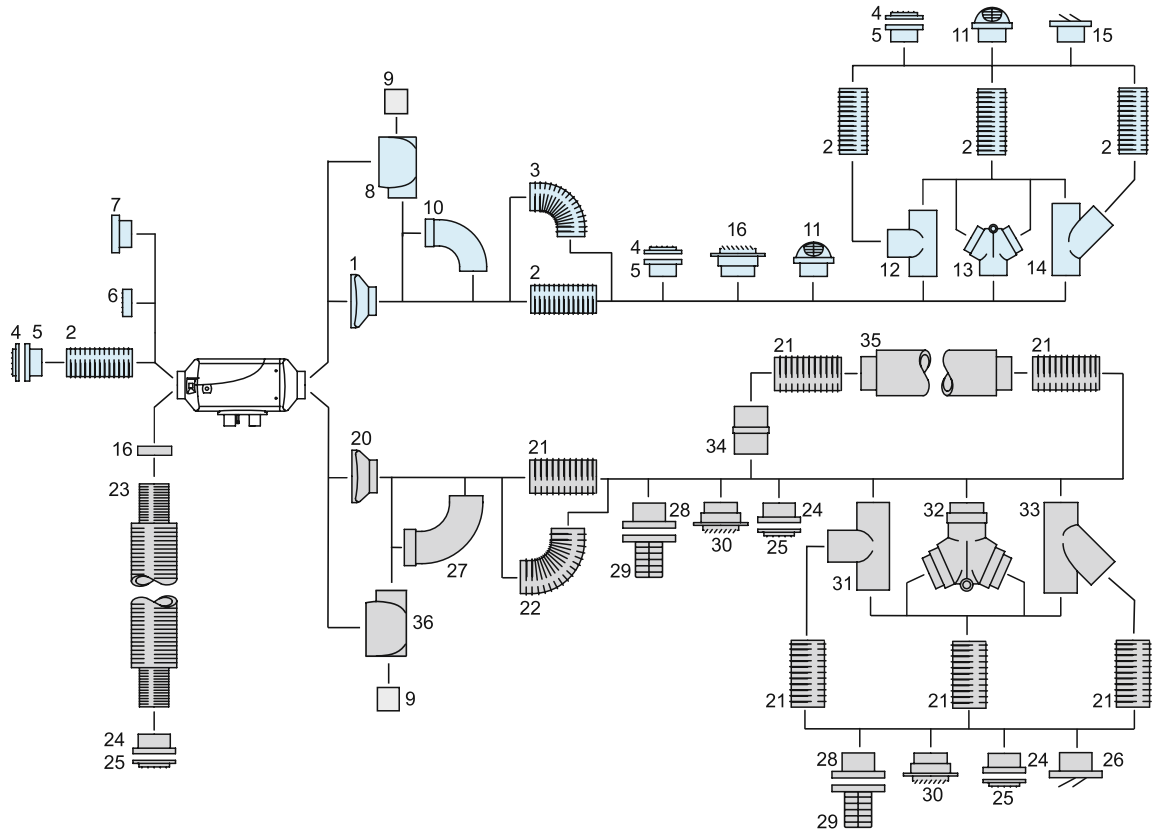
AIRTRONIC

Unit number **6** – with outlet hood ø 60
Unit number **12** – with outlet hood ø 75

The diagram shows the possible uses of the most important air system parts. These are not installation examples.

PLEASE NOTE:

See page 34 for explanations of 1-duct and 2-duct hot air system.



= ø 50 mm
= ø 60 mm
= ø 75 mm

No.	Designation (dimensions stated in mm)	Part guide number 1-duct	Part guide number 2-duct	see number for air system parts
	Hot air system with hood ø 60 (unit guide number 6)			
1	Hood, ø 60	0	–	21
2	Flex. pipe ø 60, per m	1	0.3	1
3	1 x 90° elbow, flex. pipe, ø 60	1.2	0.8	1
4	Grille	–	–	13
5	Hose connecting socket, plastic, ø 60	1.7	0.6	18
6	Grille for heater, ø 60	0	–	17
7	Air filter, ø 60	3	–	5
8	Connector, ø 60	4.5	–	32
9	Pipe connection socket, ø 50 for connector ø 60, ø 75	–	4	31
10	Pipe elbow, 90°, ø 60	4.1	0	33
11	Outflow, ø 60, rotatable	1.4	0	10
12	T-branching piece	–	0.6	35
13	Control flap, ø 60/60/60 flap setting "right/left"	–	1	40
14	Y-branching piece	–	0.3	43
15	Round nozzle, ø 60, lockable	–	–	12
16	Outflow, ø 60, rotatable	0.7	–	11
	Hot air system with hood ø 75 (unit guide number 12)			
16	Ring ø 60 / 75	0	–	34
20	Hood, ø 75	0	0	21
21	Flex. pipe ø 75, per m	1	0.3	1
22	1 x 90° elbow, flex. pipe, ø 75	1.2	0.5	1
23	Intake silencer, ø 75	0.5	–	4
24	Hose connecting socket, metal, ø 75	0.5	0	20
25	Grille, ø 75	–	–	13
26	Round nozzle, ø 75	–	1.2	12
27	Pipe elbow, 90°, ø 75	3	0.8	33
28	Hose connecting socket, plastic, ø 75	0.4	0.4	16
29	Outflow	–	–	14
30	Air outlet, rotatable ø 75	0.4	0	11
31	T-branching piece, ø 75/75/75	–	0.8	35
32	Control flap, ø 75/75/75 Flap setting "right/left" Flap setting "middle"	 – –	 1.5 0.4	40
33	Y-piece, ø 75/75/75	–	0.4	43
34	Hose connector socket, ø 75	0.1	–	44
35	Silencer, ø 75	1	–	3
36	Connector, ø 75	6	–	32

3 | AIRTRONIC: GUIDE NUMBERS

AIRTRONIC M

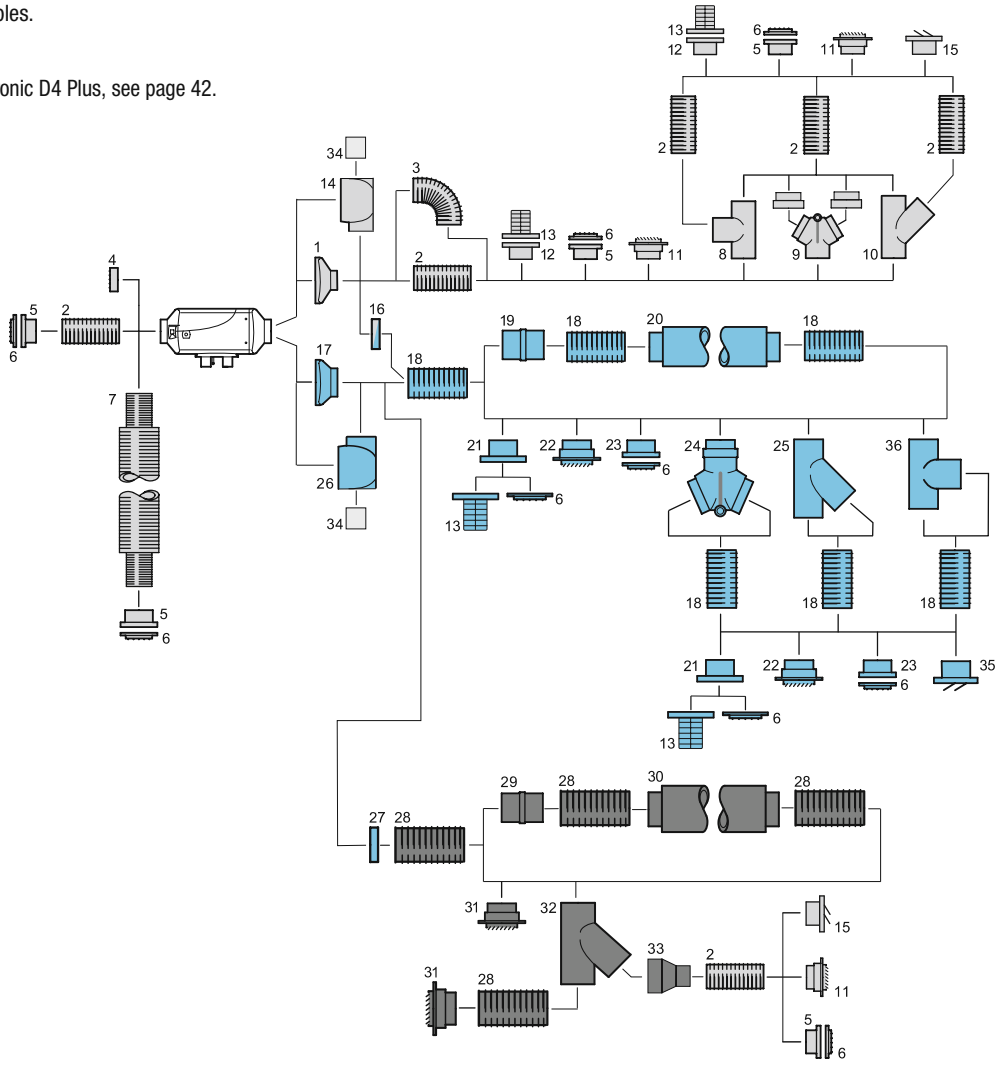
Unit number **3*** – with outlet hood ø 75
Unit number **10*** – with outlet hood ø 90

The diagram shows the possible uses of the most important air system parts. These are not installation examples.

* The unit guide numbers differ for Airtronic D4 Plus, see page 42.

PLEASE NOTE:

See page 34 for explanations of 1-duct and 2-duct hot air system.



= ø 50 mm
= ø 75 mm
= ø 90 mm
= ø 100 mm

No.	Designation (dimensions stated in mm)	Part guide number 1-duct		Part guide number 2-duct		see number for air system parts
		ø 75	ø 90	ø 75	ø 90	
	Hot air system with hood ø 75 (unit guide number 3)					
1	Hood, ø 75	0	–	–	–	21
2	Flexible pipe ø 75, per m	1	–	0.2	–	1
3	1 x 90° elbow, flex. pipe, ø 75	1	–	0.2	–	1
4	Grille for heater, ø 75	–	–	–	–	17
5	Hose connecting socket, metal, ø 75	1.4	1.4	–	0.5	20
6	Grille	–	–	–	–	13
7	Intake silencer, ø 75	1	–	–	–	4
8	T-branching piece, ø 75/75/75	–	–	0.3	–	35
9	Control flap + ring, ø 75/75/75 flap setting "right/left"	1.3	–	–	–	40
10	Y-branching piece, ø 75/75/75	–	–	1.8	–	43
11	Outflow, ø 75, rotatable	0.6	–	0.5	0.3	11
12	Socket piece, ø 75	–	–	–	–	16
13	Outflow	1	3.3	0.5	0.5	14
14	Connector, ø 75	2	–	–	–	32
15	Round nozzle, ø 75, lockable	–	–	–	2.1	12
16	Ring ø 75 / 90	0	0	–	–	34
17	Hood, ø 90	–	0	–	–	21
18	Flexible pipe ø 90, per m	–	1	–	–	1
19	Hose connector socket, ø 90	–	0.1	–	–	44
20	Silencer, ø 90	–	1	–	–	3
21	Socket piece, ø 90, with outflow, item 13	–	3.3	–	–	16
22	Outflow, ø 90, rotatable	–	2.4	–	0.3	11
23	Hose connecting socket, metal, ø 90 for grille	–	1.4	–	0.5	20
24	Control flap, ø 90/90/90 flap setting "right/left"	–	1.4	–	–	40
25	Y-piece, ø 90/90/90	–	–	–	0.5	43
26	Connector, ø 90	–	5	–	–	32
27	Ring ø 90 / 100	–	0	–	–	34
28	Flexible pipe ø 100, per m	–	0.6	–	0.4	1
29	Hose connector socket, ø 100	–	0.1	–	–	44
30	Silencer, ø 100	–	1	–	–	3
31	Outflow, ø 100, rotatable	–	1.4	–	0.5	11
32	Y-branching piece, ø 100/100/100	–	–	–	0.5	43
33	Adapter ø 100 – ø 75	–	–	–	0.8	45
34	Pipe connection socket, ø 50 for Connector, ø 75 Connector, ø 90	 – –	 – –	 1 –	 – 2.5	 31 –
35	Round nozzle, ø 90, lockable	–	–	–	–	12
36	T-branching piece, ø 90/90/90	–	–	–	0.6	35

* not for Airtronic D4 Plus

3 | AIRTRONIC: GUIDE NUMBERS

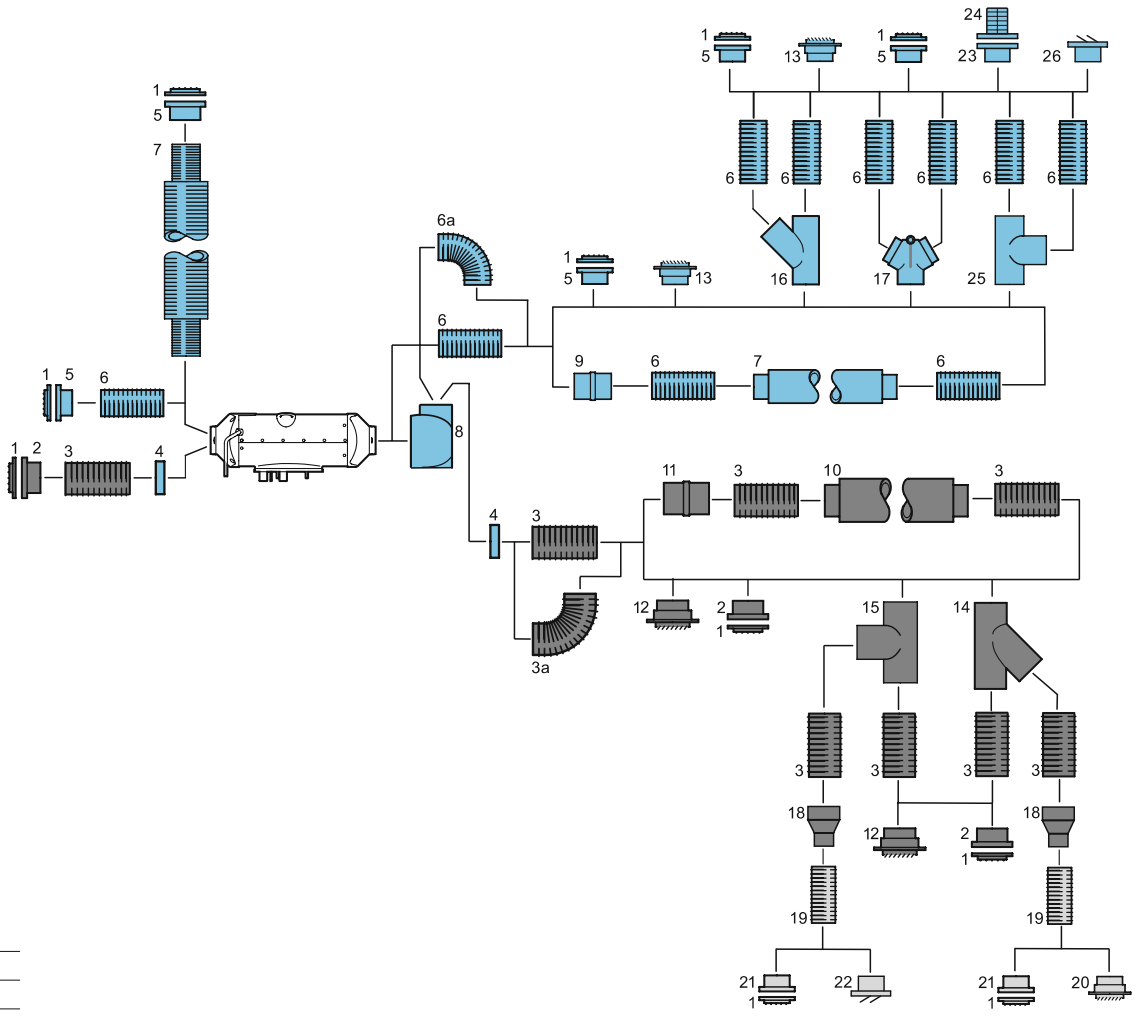
AIRTRONIC L

Unit number **10**

The diagram shows the possible uses of the most important air system parts. These are not installation examples.

PLEASE NOTE:

See page 34 for explanations of 1-duct and 2-duct hot air system.



= ø 75 mm
= ø 90 mm
= ø 100 mm

No.	Designation (dimensions stated in mm)	Part guide number 1-duct	Part guide number 2-duct	see number for air system parts
	Hot air system with hood ø 90 (unit guide number 10)			
1	Grille	0.5	0.25	13
2	Hose connecting socket, metal, ø 100	0	0	19
3	Flex. pipe ø 100, per m	0.5	0.25	1
3a	Pipe elbow 90° flex. pipe, ø 100	0	0	1
4	Grille, ø 90 / 100	0	–	17
5	Hose connecting socket, metal, ø 90	0	0	20
6	Flex. pipe ø 90, per m	1, 0	0.3	1
6a	Pipe elbow 90° flex. pipe, ø 90	0.25	0	1
7	Silencer, ø 90	0.6	0.3	3
8	Connector, ø 90	1.5	–	22
9	Hose connector socket, ø 90	–	–	46
10	Silencer, ø 100	0.25	0	3
11	Hose connector socket, ø 100	–	–	44
12	Outflow, ø 100, rotatable	3.25	1, 0	11
13	Outflow, ø 90, rotatable	3.25	1, 0	11
14	Y-branching piece, ø 100/100/100	0.5	0	43
15	T-branching piece, ø 100/100/100	0.25	0	35
16	Y-branching piece, ø 90/90/90	0.5	0	43
17	Control flap, ø 90/90/90 Flap setting "right/left"	1	–	40
18	Adapter, ø 100 – ø 75	2.75	1, 0	45
19	Flex. pipe ø 75, per m	–	1.5	1
–	Pipe elbow 90° flex. pipe, ø 75	–	0.5	1
20	Outflow, ø 75, rotatable	–	1.25	11
21	Hose connecting socket, metal, ø 75	–	0	20
22	Round nozzle, ø 75, lockable	–	–	12
23	Socket piece, ø 90	–	–	16
24	Outflow	–	–	14
25	T-branching piece, ø 90/90/90	–	0.6	35
26	Round nozzle, ø 90, lockable	–	–	12

* Item 4 – cut the grille out when using as adapter ø 90 / 100

3 | AIRTRONIC: GUIDE NUMBERS

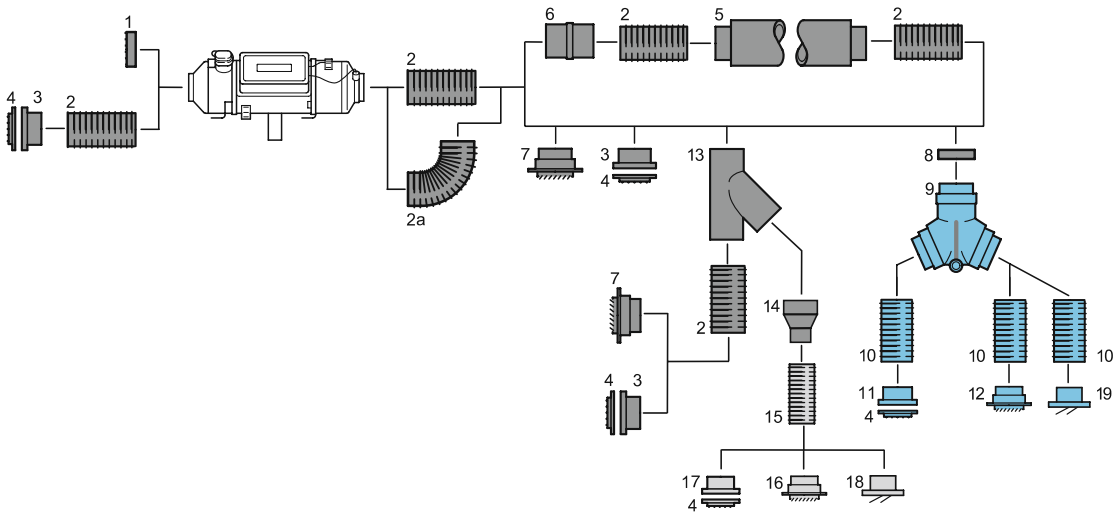
AIR HEATER 8 L

Unit number **8**

The diagram shows the possible uses of the most important air system parts. These are not installation examples.

PLEASE NOTE:

See page 34 for explanations of 1-duct and 2-duct hot air system.



= ø 75 mm
= ø 90 mm
= ø 100 mm

No.	Designation (dimensions stated in mm)	Part guide number 1-duct	Part guide number 2-duct	see number for air system parts
	Hot air system with hood ø 100 (unit guide number 8)			
1	Grille, ø 100	0.1	–	17
2	Flexible pipe ø 100, per m	1, 0	0.25	1
2a	Pipe elbow 90° flex. pipe, ø 100	0.5	0.15	1
3	Hose connecting socket, metal, ø 100	0.18	0.1	19
4	Grille, painted, ø 100	1.8	0.1	13
–	Grille, nickel-plated, ø 100	1.8	0.1	13
5	Silencer, ø 100	1.1	0.25	3
6	Hose connector socket, ø 100	–	–	44
7	Outflow, ø 100, rotatable	3.25	1.1	11
8	Grille, ø 90 / 100	0	–	17
9	Control flap, ø 90/90/90 Flap setting "right/left"	2.4	–	40
10	Flexible pipe ø 90, per m	1, 0	0.25	1
11	Hose connecting socket, metal, ø 90	–	–	20
12	Air outlet, rotatable ø 90	–	1.4	11
13	Y-branching piece, ø 100/100/100	0	–	43
14	Adapter, ø 100 – ø 75	–	0.55	47
15	Flexible pipe ø 75, per m	–	1.1	1
–	Pipe elbow 90° flex. pipe, ø 75	–	1.1	1
16	Air outlet, rotatable ø 75	–	–	11
17	Socket piece, ø 75	–	0.1	2
18	Round nozzle, ø 75, lockable	–	0.15	12
19	Round nozzle, ø 90, lockable	–	–	12

* Item 8 – cut the grille out when using as adapter ø 90 / 100

AIRTRONIC: CONTROL UNITS				
Model	Mini controller Airtronic	EasyStart T timer	EasyStart R radio remote control	EasyStart R+ radio remote control
Order number	22 1000 32 0700	22 1000 32 8800	22 1000 32 8500	22 1000 32 8000
ACCESSORIES				
Water heater ON/OFF switch	–	–	25 1380 89 0400	25 1380 89 0400
Receiver holder	–	–	22 1000 51 2100	22 1000 51 2100
Room temperature sensor (for air heaters for control during fresh-air mode)	–	22 1000 32 4900	No	Part of the standard supply
EasyStart T console	–	22 1000 51 3200	–	–
Properties/features	Start heater – heating/venting mode, turn heater off Change between heating and ventilation modes, alter the nominal temperature preset	Heating/venting ON/OFF, auxiliary unit ON/OFF, program/delete time presets, adjust heating stage – for water/air heaters	Heating/venting ON/OFF, change operating time permanently	Adjust day of the week, time and operating time, heating/venting ON/OFF, auxiliary unit ON/OFF, program/delete time presets, adjust heating output
Description	Controlling room temperature with Airtronic air heaters	For installation in vehicle interior, new intuitive menu guidance for user	Basic model, can be combined with EasyStart T	Comfort version, contains all EasyStart T functions
Preset	–	Memory capacity for 3 time presets within 7 days	No	Memory capacity for 3 time presets within 7 days
Autom. heating time calculation in preset mode	–	Optional	No	Yes
Run-time immediate operation	–	10 – 120 minutes, adjustable	20, 30, 40 or 60 minutes, adjustable	10 – 120 minutes, adjustable
Parking ventilation	Yes	Optional	Optional	Yes
Temperature display	No	Optional	No	Yes
Feedback	Yes	Heater status	Data transfer successful, heater status	Data transfer successful, heater status
Range	–	–	up to 1 km, under ideal conditions	up to 1 km, under ideal conditions
Display	–	LED display e,g, for time, heating time, temperature in the vehicle, lighting coupled to vehicle lighting	two-colour LED	LED display e.g. for time, heating time, heating/venting, battery status
Combination options	–	**EasyStart T:** The timer with connected heater cable loom (universal version) and the connected diagnosis lead (blue/white) takes on the master function; instead of the diagnosis lead (blue/white) it is also possible to connect up a room or outside temperature sensor for master detection (cf. circuit diagram in the Technical Description)	**EasyStart T:** The diagnosis lead (blue/white) must be connected to the EasyStart T (master); alternatively, a room or outside temperature sensor can be connected to the timer for master detection (see circuit diagram in the Technical Description)	**EasyStart T:** The receiver of the R+ with the connected heater cable loom (universal version) and the connected diagnosis lead (blue/white) takes on the master function; to this end, the room temperature sensor included in the scope of supply of the R+ must be connected to the receiver of the R+ (see circuit diagram in the Technical Description)
Permissible heater combinations with a control unit	Calltronic (see Calltronic)	Unit 1 connected to diagnosis lead, air heater with JE diagnosis (control boxes with second diagnosis lead)	–	Unit 1 connected to diagnosis lead, air heater with JE diagnosis (control boxes with second diagnosis lead)

* SIM card: 1.8V or 3V SIM card/prepaid card of a mobile phone provider that supports the GSM 900/1800 mobile telecommunications standard in Europe (D/E-network), additional costs (roaming fees) in other European countries, possibly roaming fees in border regions to neighbouring foreign countries because of superimposition in network coverage

Calltronic* telephone remote control
22 1000 33 8200
25 1380 89 0400
–
–
–
Heating ON/venting ON, heating OFF/ venting OFF, preset/program heating ON (one in 24h, only possibly by SMS), enable venting ON (summer mode), disable venting ON (summer mode)
Parking heater can be operated by mobile or landline phone (tone dialling
Once in 24 h, only possibly by SMS
No
10 – 120 minutes, adjustable
Yes
No
Input confirmation
unrestricted (when network coverage available)
No
Mini controller: No provision is made for combination with control units of the EasyStart family (cf. circuit diagram in the Technical Description)
–

3 | AIRTRONIC: CONTROL UNITS

PERMISSIBLE COMBINATIONS OF CONTROL UNITS*

	Mini controller AIRTRONIC	Control unit	Mini controller & EasyStart R	EasyStart T	EasyStart T & EasyStart T	EasyStart T & EasyStart R	EasyStart T & EasyStart R+	EasyStart R+
Airtronic**		limited: without venting function						
D8 LC								

* For other combinations between older heaters and/or older control units, please refer to the corresponding Technical Descriptions for the heater respectively control units

** D2, D3, B4, D4, D4 Plus, B5, D5

3 I AIRTRONIC: ON-TOP OPTIONS

CIRCULATING AIR MODE WITH INTERNAL SENSOR:

STANDARD CASE:

Circulating air mode with measurement of actual temperature by temperature sensor in control box.

ADDITIONAL OPTION 1:

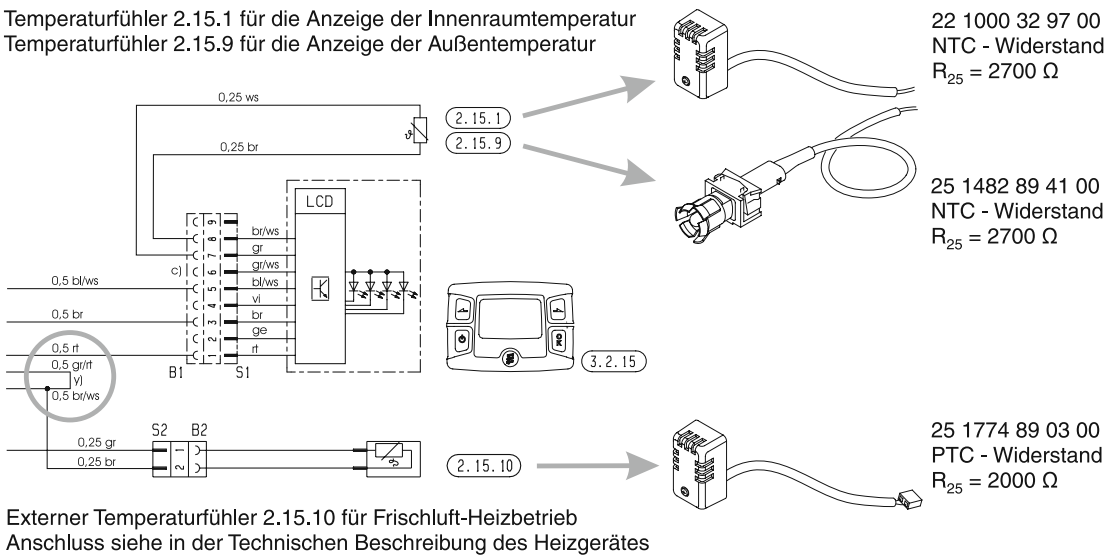
Fresh air mode with measurement of actual temperature by external temperature sensor, mounted separately in suitable measuring range of the required temperature.

ADDITIONAL OPTION 2 – PARKING VENTILATION:

The Airtronic heaters contain the parking ventilation function.
This function is detected automatically together with the EasyStart and the mini control units (see EasyStart and mini controller commissioning instructions). For other heaters or control units, please refer to the Technical Description.

FRESH AIR MODE WITH EXTERNAL SENSOR:

OVERVIEW: OPTION FRESH AIR MODE AND TEMPERATURE DISPLAY AT EASYSTART CONTROL UNITS, EXAMPLE EASYSTART T:



PLEASE NOTE: For EasyStart T and R+, disable the heating time calculation in the garage menu when connecting the temperature sensor 22 1000 32 49 00. See EasyStart installation instructions.

4 I SERVICE: DIAGNOSTIC UNIT

EBERSPÄCHER DIAGNOSIS POSSIBILITIES:

- **With the EasyStart control units:**
  See heater or control unit troubleshooting in the Service Portal
- **With the previous diagnostic units 22 1512 89 0000 and 22 1529 89 0000 and the new diagnostic unit 22 1545 89 00 00**
  See heater troubleshooting or diagnostic unit instructions in the Service Portal NEW
- **EDiTH Basic, needs PC, ISO adapter and software:**
  See heater troubleshooting or EDiTH instructions in the Service Portal
- **EDiTH Expert, needs PC, EDiTH Expert hardware and software:**
  See heater troubleshooting or EDiTH instructions in the Service Portal

Test heaters with	Control unit/diagnostic unit	EDiTH Basic	Diagnostic unit or EDiTH Basic	EDiTH Expert	EDiTH Expert extensions
Complete test without PC	X		X		
Complete test with PC		X	X		
Control box test with PC				X	X

THE NEW DIAGNOSTIC UNIT 22 1545 89 00 00 IS USED:

- If no EasyStart T or R+ control unit is installed
- If no EDiTH Basic and PC available
- As replacement for defective diagnostic units 22 1512 89 00 00 and 22 1529 89 00 00
- For diagnosis of heaters Hydronic 2 Economy and Hydronic 2 Commercial

DIAGNOSTIC UNITS:

- For reliable initial commissioning resp. swift diagnosis in the vehicle, without diagnosis-capable control unit
- If no PC available
- Minimum equipment

EDITH BASIC:

- Read-out of general heater data, e.g. running time function test in vehicle and on test stand, display of parameters
- Enabling individual components for testing parts, line filling
- Recommended basic equipment

EDITH EXPERT:

- Testing functions of removed control boxes
- Diagnosis of control boxes without Eberspächer diagnosis or when special hardware has to be enabled
- For advanced service partners capable of doing maintenance for all heater types

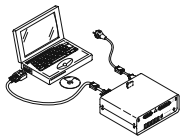
4 | SERVICE: TEST UNIT

TEST UNITS FOR HEATERS

Designation	Article No.
EDiTH Basic + USB adapter + CD-ROM	22 1541 89 00 00
Diagnostic unit (new clock)	22 1545 89 00 00
Adaptor cable	–
Hydronic I 3/4/5 KW	22 1000 31 63 00
Airtronic	22 1000 31 86 00
Hydronic 16/24/30/35	22 1000 31 66 00
Air heater compact	22 1000 30 69 00
Air heater C (D1L C DAF)	22 1000 30 20 00
D9W, Hydronic 10 (old diagnosis clock)	22 1000 30 05 00
D9W, Hydronic 10	22 1000 31 83 00
Hydronic 10 (25 2161/25 2162)	22 1000 32 52 00
Hydronic M II	22 1000 33 44 00
D1/3LC MAN	22 1000 30 32 00
Hydronic 30 Neoplan	22 1000 31 16 00
D1LC/D1LC compact RVI	22 1000 31 23 00
D1/3LC compact DAF	22 1000 31 21 00
Adapter Hydronic 2 (OEM HG)	22 1000 32 64 00
Adapter cable Hydronic 2 Eco/Com.	22 1000 33 78 00
ISO adapter IPCU	22 1000 32 74 00
USB adapter + CD-ROM*	22 1543 89 00 00

* Necessary when changing to PC without serial interface, in case of existing diagnosis.

TEST UNITS FOR CONTROL BOXES AND HEATERS



Designation	Article No.
EDiTH Expert incl. USB adapter + CD-ROM	22 1542 89 00 00
Adapter Hydronic I	22 1533 89 00 00
Adapter Hydronic 2	22 1534 89 00 00
Adapter Compact air heater D2I	22 1535 89 00 00
Adapter LC air heater D2H	22 1536 89 00 00
Adapter Airtronic	22 1537 89 00 00
Adapter Hydronic 10	22 1538 89 00 00
Adapter Hydronic 16/24/30/35	22 1539 89 00 00
Adapter complete test cable	22 1540 89 00 00
Adapter IPCU	22 1000 32 76 00
USB adapter + CD-ROM*	22 1543 89 00 00

4 | SERVICE:
A/C KIT WITH IPCU FOR CONTROL OF VEHICLE FAN

THE IPCU IS PART OF THE A/C KIT:

Preferably, A/C kits should be replaced!

OPTIONS:

- See installation suggestion/Service Portal for A/C kit availability
- If no A/C kit available, then Service Portal:
- IPCU program bar (download section)
- Call the Technical Hotline

WARNING:

- Measurement requires skilled knowledge of vehicle electric systems
- Measurement requires circuit diagrams from vehicle manufacturer
- We cannot accept any liability for measuring errors that destroy the vehicle A/C system and/or measuring equipment and diagnostic units

INSTRUCTION FOR MEASUREMENT WITH SUITABLE INSTRUMENTS:

Universal multimeter with frequency meter and pulse duty factor or an oscilloscope (part of garage equipment).

PROCEED WITH MEASUREMENT:

- Voltmeter preset measuring range minimum U3; measure as per circuit diagram
- Turn ignition on
- Change fan stage at A/C control unit
- If voltage is changeable 0 – 5 V or 0 – 10 V:
  Voltage divider, select lowest fan stage, note voltage

No clear change:

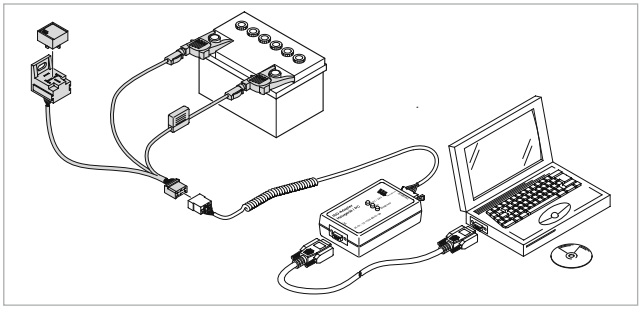
- Set fan to 0, measure DC voltage in volt range
  - Voltage against UB: **Low active or**
  - Voltage 0 Volt: **High active, note**

  Important: note max. voltage!
- Change over to frequency measurement, **read off and note frequency**
- Choose small fan stage, change over to pulse duty factor and **note pulse duty factor as a %**
- Select fan stage so that pulse duty factor ~50 %, change measuring instrument over to minimum U13, **read off voltage, multiply by 2 and note**

PROGRAMMING POSSIBILITY 1:

Adapter cable for configuring the IPCU

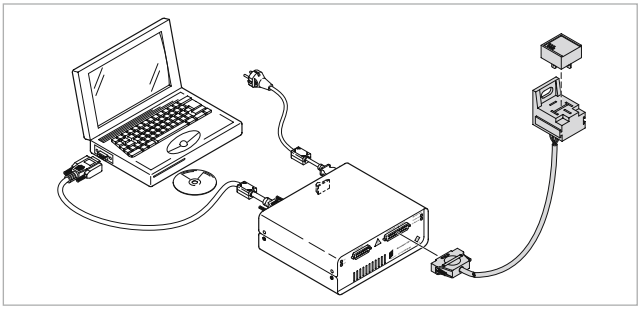
Order No.: 22 1000 32 74 00



PROGRAMMING POSSIBILITY 2:

Extension for configuring the IPCU

Order No.: 22 1000 32 76 00



4 | SERVICE: SERVICE/EXCHANGE UNIT CONCEPT

OVERVIEW SERVICE HEATERS (NEW UNITS OR UNITS AS GOOD AS NEW, FOR DEFECTS IN FIRST 6 MONTHS):

HEATER	Designation	Order number
Hydronic B4W S	Service unit new version Facelift	20 1852 98 01 00
Hydronic B4W SC	Service unit new version Facelift	20 1821 98 01 00
Hydronic B5W S	Service unit new version Facelift	20 1819 98 01 00
Hydronic B5W SC	Service unit new version Facelift	20 1820 98 01 00
Hydronic D4W S	Service unit new version Facelift	25 2355 98 01 00
Hydronic D4W SC	Service unit new version Facelift	25 2221 98 01 00
Hydronic D5W S 12 V	Service unit new version Facelift	25 2217 98 01 00
Hydronic D5W SC	Service unit new version Facelift	25 2219 98 01 00
Airtronic D2 / D4	Airtronic D2 12 V	25 2069 97 01 00
	Airtronic D2 24 V	25 2070 97 01 00
	Airtronic D4 12 V	25 2113 97 01 00
	Airtronic D4 24 V	25 2114 97 01 00

OVERVIEW EXCHANGE HEATERS (RECONDITIONED UNITS, FOR DEFECTS BETWEEN 6 AND 48 MONTHS):

HEATER	Designation	Order number
Hydronic B4W S	Replacement unit new version Facelift	20 1852 97 01 00
Hydronic B4W SC	Replacement unit new version Facelift	20 1821 97 01 00
Hydronic B5W S	Replacement unit new version Facelift	20 1819 97 01 00
Hydronic B5W SC	Replacement unit new version Facelift	20 1820 97 01 00
Hydronic D4W S	Replacement unit new version Facelift	25 2355 97 01 00
Hydronic D4W SC	Replacement unit new version Facelift	25 2221 97 01 00
HYDRONIC D5W S 12 V	Replacement unit new version Facelift	25 2217 97 01 00
HYDRONIC D5W SC	Replacement unit new version Facelift	25 2219 97 01 00
HYDRONIC D5W S 24 V	Replacement unit new version Facelift	25 2218 97 01 00
AIRTRONIC D2 / D4	AIRTRONIC D2 12 V	25 2069 97 01 00
	AIRTRONIC D2 24 V	25 2070 97 01 00
	AIRTRONIC D4 12 V	25 2113 97 01 00
	AIRTRONIC D4 24 V	25 2114 97 01 00

4 I SERVICE: REPLACEMENT UNIT BUSINESS

OVERVIEW NEW UNITS (FOR DEFECTS FROM 48 MONTHS):

HEATER	Designation	Order number
Hydronic B4W S 12 V	Heater without installation kit	20 1852 05 00 00
Hydronic B4W SC 12 V	Heater without installation kit	20 1824 05 00 00
Hydronic D4W S 12 V	Heater without installation kit	25 2355 05 00 00
Hydronic D4W SC 12 V	Heater without installation kit	25 2257 05 00 00
Hydronic B5W S 12 V	Heater without installation kit	20 1819 05 00 00
Hydronic B5W SC 12 V	Heater without installation kit	20 1820 05 00 00
Hydronic D5W S 12 V	Heater without installation kit	25 2217 05 00 00
Hydronic D5W SC 12 V	Heater without installation kit	25 2219 05 00 00
Universal installation kit	For Hydronic B/D4/5WS	24 9988 00 00 63
Universal installation kit	For Hydronic B4/5WSC	24 9988 00 00 64
Universal installation kit	For Hydronic D4/5WSC	24 9988 00 00 65
Hydronic D5W S 24 V	Heater without installation kit	25 2218 05 00 00
Universal installation kit	For Hydronic D5WS 24 V	25 2218 80 00 00
Airtronic D2 / D4	Airtronic D2 12 V	25 2069 05 00 00
	Airtronic D2 24 V	25 2070 05 00 00
	Installation kit Airtronic D2 12 / 24 V	25 2069 80 00 00
	Airtronic D4 12 V	25 2113 05 00 00
	Airtronic D4 24 V	25 2114 05 00 00
	Installation kit Airtronic D2 12 / 24 V	25 2113 80 00 00

PLEASE NOTE FOR HYDRONIC HEATERS:

When replacing an older generation with facelift heaters, you will also need the following parts:

- 1 pc. unit holder, facelift — 25 2220 80 00 01
- 1 pc. fastening screw — 100 10 101
- 2 pcs. reducers water hose 20/18 — 20 1645 89 00 06

Note: Hydronic B/D4W SC heaters in the older generation are 20 mm shorter than the facelift units!

4 | SERVICE: AUXILIARY HEATER

AUXILIARY HEATER	Designation	Order number
D3W Z 12 V	VW T4, PME	25 2121 05 00 00
D5W Z 12 V	VW Sharan MPV	25 2163 05 00 00
D5Z-F 12 V	VW Sharan MPV	25 2278 05 00 00
D5W Z 12 V	DC Sprinter T1N	25 2162 05 00 00
D5W Z 12 V	DC TO (Vito + V Class)	25 2124 05 00 00
D3W Z 12 V	Opel Corsa Monocub	25 2253 05 00 00
D3W Z 12 V	Opel Omega 2.5I	25 2249 99 02 00
Hydronic D4W S 12 V	VW Sharan MPV + T4	25 2123 05 00 00
D5W S 12 V	VW Sharan	25 2164 05 00 00
D5W S 12 V	DC Sprinter T1N T2W	25 2091 05 00 00

5 I ARGUMENTS FOR GARAGES

Eberspächer's fuel-operated heating systems "made in Germany" have acquired a global reputation on account of their robust design, performance level and mature technology. Our innovative heating technology provides great comfort and warmth for every possible application, with pleasant temperatures prevailing already on entering the vehicle. Use our products to the benefit of your customers – and thus also to your own benefit. The following pages list the key arguments in favour of Eberspächer – for you and your customers.

MORE PROFIT:

To give you an opportunity to purchase the heating system at particularly favourable conditions, every sold heater leaves you with a profit that is well worthwhile.

PARKING HEATER INSTEAD OF DISCOUNT:

Almost everything is subject to "bargaining" today. Your customers demand perquisites – which are usually to your detriment. Not any more! Rather than giving your customers a discount, offer them a lucrative package instead – an Eberspächer heater at a particularly attractive special rate.

POTENTIAL:

Once customers have opted for a parking heater, most will also want this extra in the next vehicle they buy.

PARTNERSHIP:

As an Eberspächer partner, you will be given comprehensive training to acquire the necessary know-how about Eberspächer parking heaters. You will also be given access via our internet portal to the full range of information you need – such as installation suggestions, prices and catalogues. You will be provided with our comprehensive advertising packager at the start of the season.

EFFECTIVE INTERNAL SALES SUPPORT:

- Customers need a positive experience as an incentive to buy! That means: your demonstration vehicles should also be equipped with a parking heater!
- Motivation is the key: make sure your sales staff are really keen about parking heaters right from the outset.
- Make sure they get it right: provide your staff with convincing exemplary calculations for leasing and financing transactions!
- Enhance the effect: beat the publicity drum also on your website, in your newsletter or in direct mailing campaigns.

KEEP THIS IN MIND WHEN PLANNING:

- Keep your sales team, parts and service managers will informed about your campaigns in plenty of time!
- Stipulate the vehicle models that can be offered with the campaign packages!
- Make sure the package prices are calculated meticulously!
- Order our advertising materials and equip your premises accordingly!
- Make sure that the needed parts are available!
- Check the know-how level in your garage when it comes to parking heaters; if necessary, make the most of the training opportunities offered by your wholesaler and by Eberspächer.
- Work together with your team to draw up a set of guidelines for sales talks. Use strong arguments!

5 I ARGUMENTS FOR END CUSTOMERS

CUSTOMER ADVANTAGES CARS:

- A parking heater does more than eliminate the need to scratch the ice of the windows – it also makes sure that the vehicle is nice and warm after training or a visit to the spa, after an evening at the cinema or a concert. A parking heater is also a genuine status symbol and an absolute must in any premium vehicle.
- The Eberspächer parking heater ensures that the car windows are defrosted when the vehicle starts up without any condensation. Clear view of the road ahead without any cumbersome winter jacket at the wheel – all in aid of more safety!
- The load on the engine from a cold start is about equal to travelling 70 kilometres on the motorway. A modern parking heater prevents this load by heating not just the vehicle interior but also the engine through the coolant circuit. This bypasses the cold start phase with all the wear-and-tear it imposes on the system, thus also helping to preserve the value of the vehicle.
- After the engine has been preheated by the parking heater, it consumes far less fuel to start up and during the first few minutes, as the cold-start/warm-up phase described above no longer applies. As a rule, this adequately compensates for the increased consumption incurred by operation of the parking heater.
- A warm start emits about 60 % less pollution than a cold start. As well as appeasing the conscience, thus also protects the environment. Reduced pollution is therefore one of the strongest arguments for using a parking heater.
- Our part of the world is colder for longer than you would think. Ice in April is not a rare occurrence! And October often sees the thermometer plunge below zero for the first time. And on hot summer days, a simple adjustment to parking ventilation fills your vehicle with fresh outside air at any time, even on the car park.

CUSTOMER ADVANTAGES MOTOR HOMES:

- The heater is supplied with fuel from the vehicle tank so that there is no longer any need to worry about gas bottles and the right fittings when travelling abroad
- Eberspächer units offer low fuel and power consumption levels
- The heater is adjusted conveniently with the controller, by preprogramming, remote control or using the phone
- Eberspächer fuel-operated heating systems are now even quieter
- The heater is fitted inside the vehicle; space-saving installation under the floor or in the engine compartment is also possible
- Heating while en route is also permitted all over the world – without needing any additional components
- The heater is designed for particularly easy servicing and maintenance

CUSTOMER ADVANTAGES SPECIAL VEHICLES:

- Highly efficient for low operating costs
- Reliable starting even at low temperatures
- Pleasant temperatures in mobile workplaces and optimum temperature control in cargo compartments
- Eberspächer fuel-operated heating systems are now even quieter
- The heater is fitted inside the vehicle; space-saving installation under the floor or in the engine compartment is also possible
- The heater is designed for particularly easy servicing and maintenance

CUSTOMER ADVANTAGES MARINE SECTOR:

- Eberspächer units offer low fuel and power consumption levels
- The heater keeps the cabin cosy and warm
- The heater is adjusted conveniently with the controller, by preprogramming or using the phone
- Eberspächer fuel-operated heating systems are now even quieter
- There is no need to sacrifice space in the cabin for the heater, as the whole system can be easily accommodated in any area with good outside ventilation, such as a storage locker, cockpit and stowage space
- The heater is designed for particularly easy servicing and maintenance
- Heat for service water or for the shower

6 | WATER SYSTEM PARTS

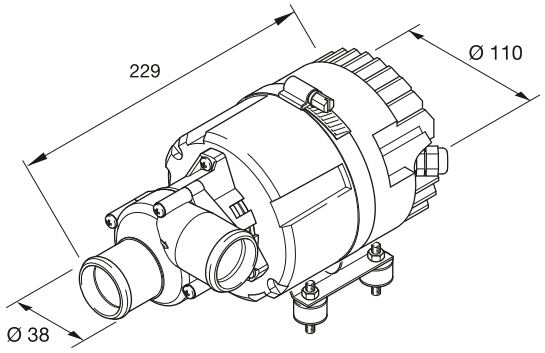
GENERAL INFORMATION:

- Mount the water pump below the heater or at the most on the same level.
- All water system parts must always remain below the cooling water level of the engine.
- When installing a water heater, always only use water hoses permitted in automotive engineering as otherwise there is a risk of them bursting or of pieces of hose coming apart layer by layer, which would clog the water circuit.
- Always use hose clips to fasten water hoses at connection points.
- Always route the water hoses so that they are not in contact with or cannot by worn through by any moving parts. Pay special attention to the extreme vibrations of an engine when it starts or stops.
- Always route the water hoses with large radii to rule out any risk of kinking, and avoid any freely vibrating water hoses.
- Protect the water hoses from extreme heat exposure or even contact with hot parts of the engine, e.g. with the exhaust pipe.
- Always vent the whole water circuit system of a vehicle every time after you have intervened in the installation.
- Please also comply with the safety instructions for this chapter in the heater documentation.

6 | WATER SYSTEM PARTS

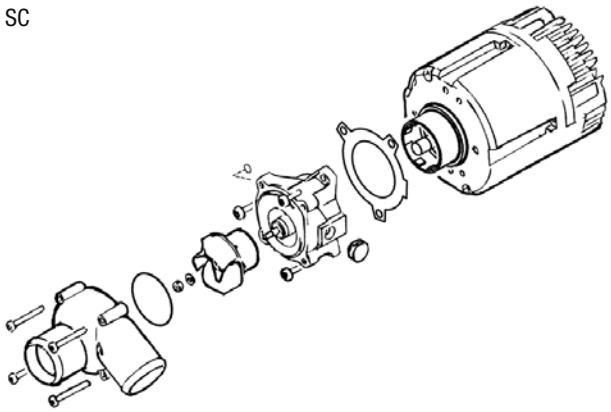
Water pump Flowtronic 6000 SC

with magnetic coupling, with holder
Water flow rate 6000 l/h against 0.4 bar



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
24 V							■	25 2488 25 00 00

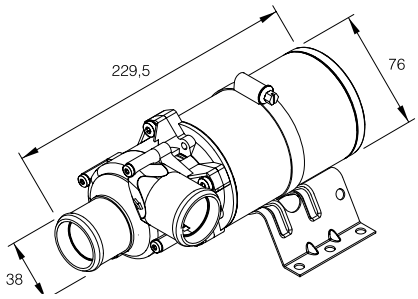
Spare parts kit Flowtronic 6000 SC



							■	25 2488 99 25 10

Water pump Flowtronic 5000

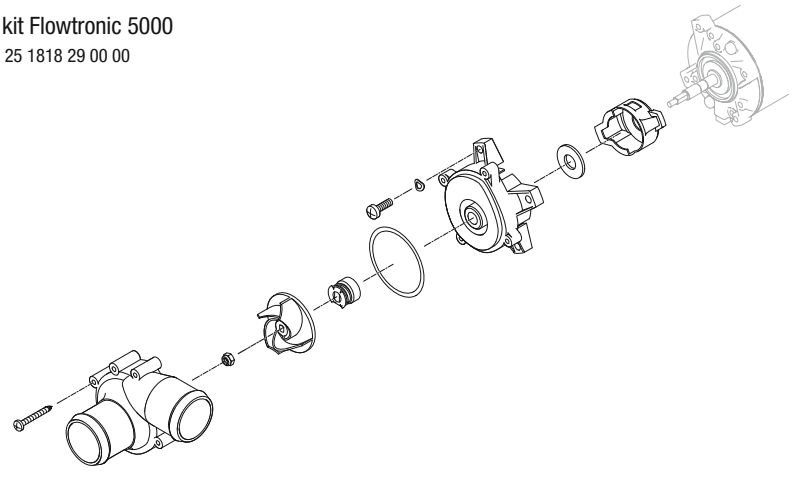
with holder, water flow rate 5200 l/h against 0.2 bar



available from October 2011								
24 V							■	25 2488 26 00 00

Spare parts kit Flowtronic 5000

for water pump 25 1818 29 00 00



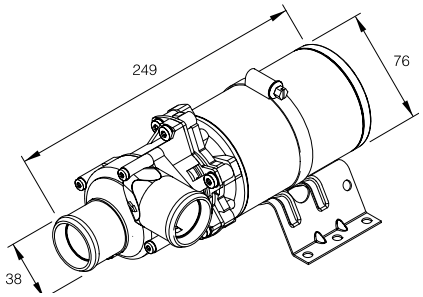
							■	25 2488 99 26 10

■ suitable for unlimited use ~ suitable for limited use

6 | WATER SYSTEM PARTS

Water pump Flowtronic 5000 S

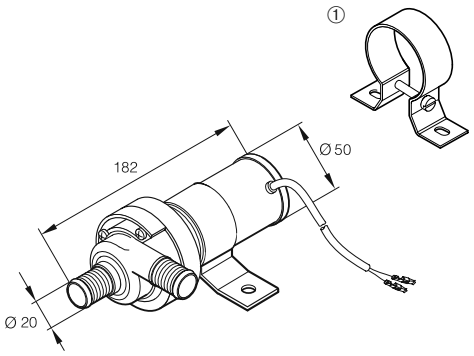
with magnetic coupling, with holder
Water flow rate 5200 l/h against 0.2 bar



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
24 V							■	25 1818 30 00 00

Water pump Flowtronic 1200 S

with magnetic coupling, lead harness 200 mm long
12 V without holder, 24 V with holder
Water flow rate 700 l/h against 0.3 bar

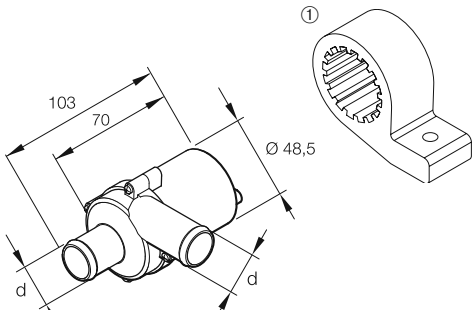


① Holder for water pump 12 V, see page 123

12 V						■		25 1815 25 01 00
24 V						■		25 1928 80 02 00

Water pump Flowtronic 800 S

Water flow rate 820 l/h against 0.1 bar

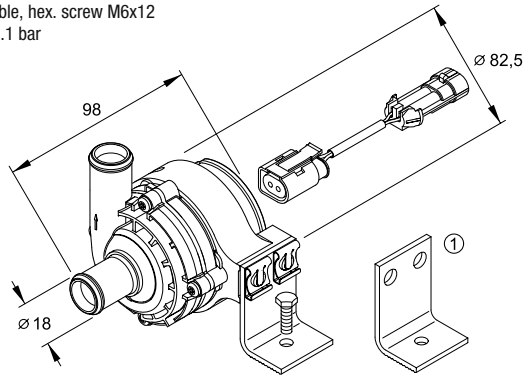


① Holder see page 122

12 V, d = 20 mm					■			25 2275 25 00 00
4 V, d = 18 mm					■			25 2218 25 00 00

Water pump

mounted with holder, adapter cable, hex. screw M6x12
Water flow rate 850 l/h against 0.1 bar



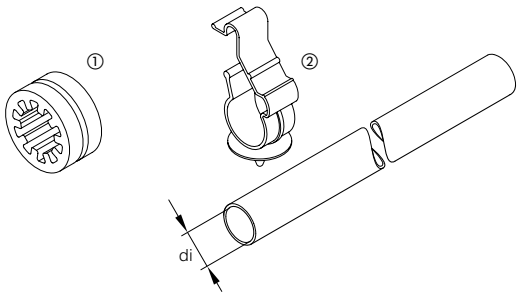
① Holder see page 123

24 V					■			25 2217 27 00 00

■ suitable for unlimited use ~ suitable for limited use

6 | WATER SYSTEM PARTS

Water hose



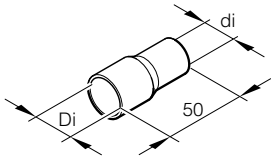
① Spacer ring see page 123

② Water hose fastening page 122

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 15 mm, L = cont m					~			360 75 020
di = 18 mm, L = 1 m					■	~		360 75 083
di = 20 mm, L = 1 m					~	■	~	360 75 084
di = 38 mm, L = 1 m							■	360 75 096

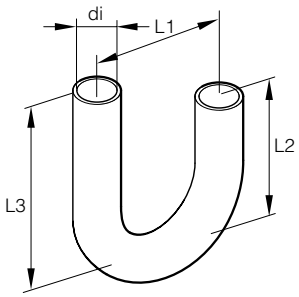
Reducer hose



~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Di = 20 mm, di = 15 mm					~	~		20 1533 88 00 04
Di = 20 mm, di = 18 mm					■	■		20 1528 88 00 02
Di = 22 mm, di = 18 mm					~	~		20 1645 89 00 08

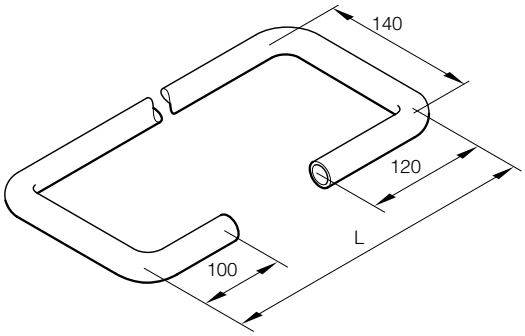
Water hose



~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 15 mm / 180°, L1 = 50 mm, L2 = 50 mm, L3 = 75 mm					~	~		20 1522 88 00 01
di = 20 mm / 180°, L1 = 50 mm, L2 = 50 mm, L3 = 83 mm					~	■		20 1534 88 00 02
di = 18 mm / 180°, L1 = 45 mm, L2 = 55,5 mm, L3 = 60,5 mm					■	~		360 75 043

Water hose



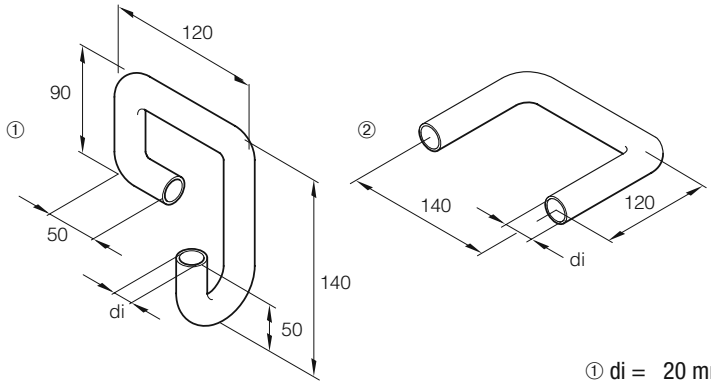
~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 18 mm, L = 500 mm					■	~		24 0132 00 00 01
di = 18 mm, L = 2000 mm					■	~		20 1690 81 00 01
di = 20 mm, L = 2000 mm					~	■		25 1917 80 00 01

■ suitable for unlimited use ~ suitable for limited use

6 | WATER SYSTEM PARTS

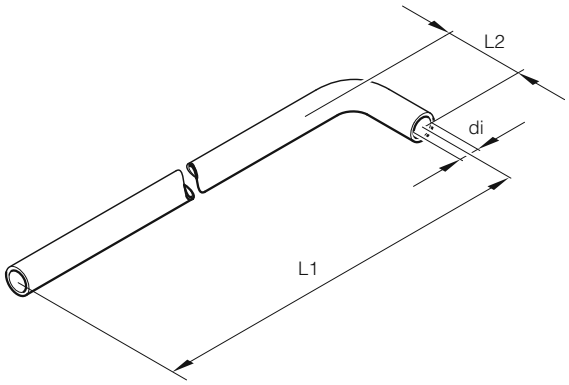
Water hose



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
① di = 20 mm					~	■		25 2526 80 01 02
② di = 20 mm					~	■		24 0117 80 00 01

~ = preferably for connecting Hydronic 2 / Hydronic 2 C with the water pump

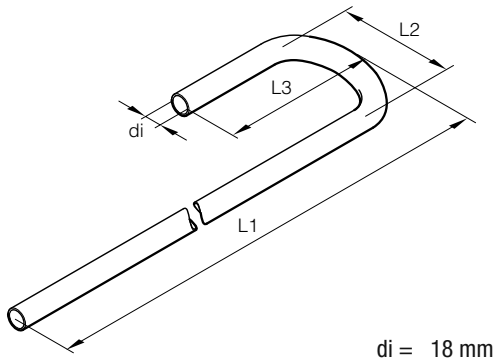
Water hose



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 15 mm, L1 = 1000 mm, L2 = 50 mm					~	~		20 1528 88 00 01
di = 15 mm, L1 = 500 mm, L2 = 50 mm					~	~		20 1533 88 00 05
di = 18 mm, L1 = 1000 mm, L2 = 50 mm					■	~		20 1645 80 00 01
di = 18 mm, L1 = 840 mm, L2 = 240 mm					■	~		20 1645 89 00 01
di = 20 mm, L1 = 120 mm, L2 = 60 mm					■	~		24 0310 80 00 02

~ = check connection diameter

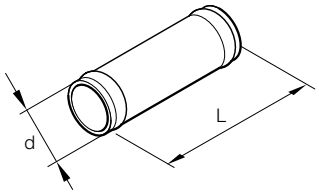
Water hose



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 18 mm L1 = 865 mm, L2 = 130 mm, L3 = 165 mm					■	~		20 1645 89 00 02

~ = check connection diameter

Connection pipe



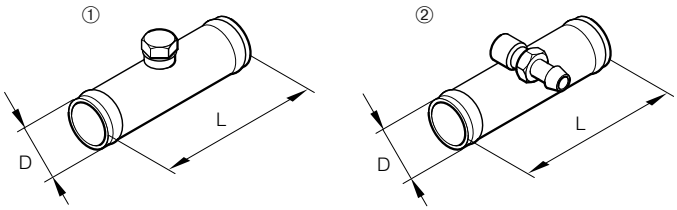
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Brass, d = 15 mm, L = 55 mm					~	~		20 1533 88 00 03
Brass, d = 18 mm, L = 55 mm					■	~		20 1528 88 00 03
Plastic, d = 20 mm, L = 60 mm					~	■		22 1000 10 01 03
Brass, d = 22 mm, L = 55 mm					~	~		20 1645 89 00 07
Brass, d = 38 mm, L = 60 mm							■	25 1214 89 00 21

~ = check connection diameter

■ suitable for unlimited use ~ suitable for limited use

6 | WATER SYSTEM PARTS

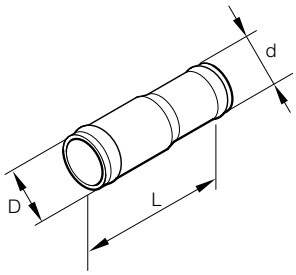
Vent pipe
Brass



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
① D = 18 mm, L = 65 mm					■	~		20 1645 89 01 00
② D = 18 mm, L = 65 mm					■	~		20 1645 89 12 00

~ = check connection diameter

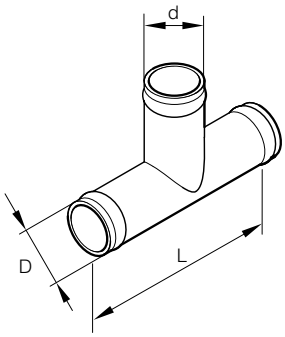
Reducer



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Brass, D = 18 mm, d = 15 mm, L = 60 mm					■	~		20 1645 80 02 01
Plastic, D = 20 mm, d = 15 mm, L = 60 mm					~	■		22 1000 10 01 05
Plastic, D = 20 mm, d = 18 mm, L = 60 mm					~	■		22 1000 10 01 04
Brass, D = 22 mm, d = 15 mm, L = 60 mm					~	~		25 1214 89 00 11
Brass, D = 22 mm, d = 18 mm, L = 60 mm					~	~		20 1645 89 00 05
Brass, D = 22 mm, d = 20 mm, L = 60 mm					~	■		25 1214 89 00 04
Brass, D = 38 mm, d = 28 mm, L = 80 mm							■	25 1214 89 00 19

~ = check connection diameter

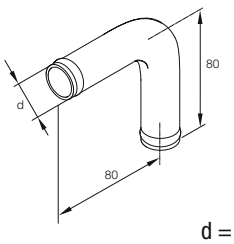
Pipe T-piece
Brass



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
D = 18 mm, d = 15 mm, L = 60 mm					■	~		25 1214 89 16 00
D = 18 mm, d = 18 mm, L = 75 mm					■	~		20 1645 89 10 00
D = 20 mm, d = 18 mm, L = 75 mm					~	■		20 1645 89 11 00
D = 20 mm, d = 20 mm, L = 75 mm					~	■		20 1673 80 11 00
D = 38 mm, d = 38 mm, L = 120 mm							■	25 1371 89 04 00

~ = check connection diameter

Pipe elbow
Brass



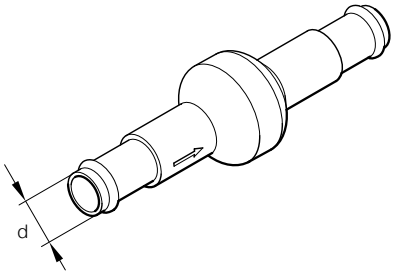
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 18 mm					■	~		20 1645 89 00 04
d = 20 mm					~	■		25 1214 89 00 02

~ = check connection diameter

■ suitable for unlimited use ~ suitable for limited use

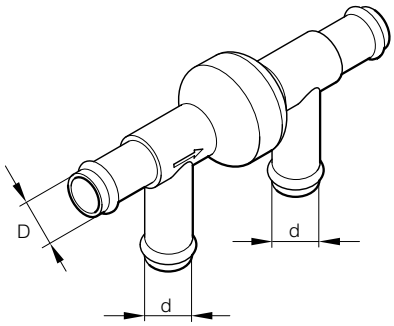
6 | WATER SYSTEM PARTS

Non-return valve
Metal



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 18 mm					■	~		254 00 071
d = 20 mm					~	■		254 00 072

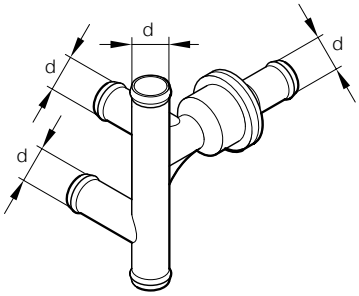
Non-return valve
Tight version, metal



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
D = 18 mm, d = 18 mm					■	~		254 00 070
D = 20 mm, d = 20 mm					~	■		254 00 074

~ = check connection diameter

Combination valve
with 5 connections

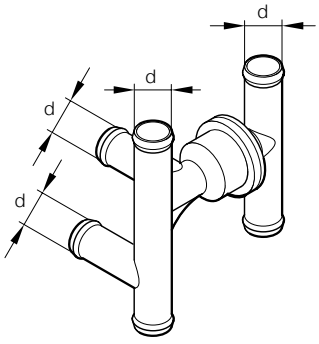


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 20 mm					~	■		25 2014 80 70 00
* d = 20 mm					~	■		25 2014 80 72 00

* with thermostat function

Also required: Pipe T-piece, page 69

Combination valve
with 6 connections



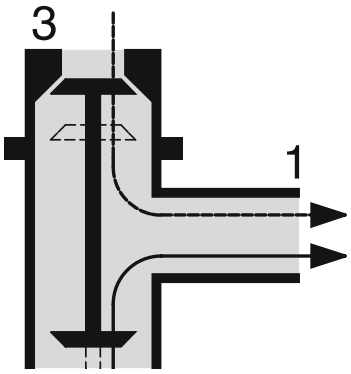
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 20 mm					~	■		25 2014 80 60 00
* d = 20 mm					~	■		25 2014 80 62 00

* with thermostat function

■ suitable for unlimited use ~ suitable for limited use

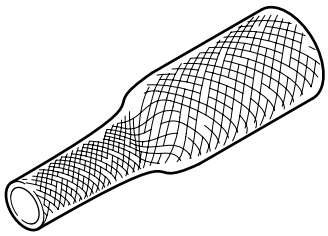
6 | WATER SYSTEM PARTS

Thermostat
Brass, switching temperature 70 – 75°C



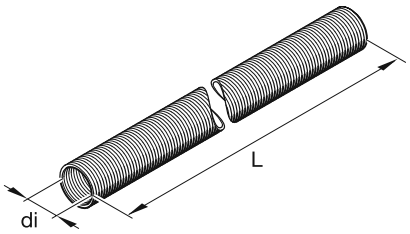
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
D = 18 mm, d = 18 mm, D1 = 48 mm, L = 109 mm					■	~		330 00 123
D = 20 mm, d = 20 mm, D1 = 48 mm, L = 112 mm					~	■		330 00 124

Heat-shrink hose
Scuff protector for water hoses



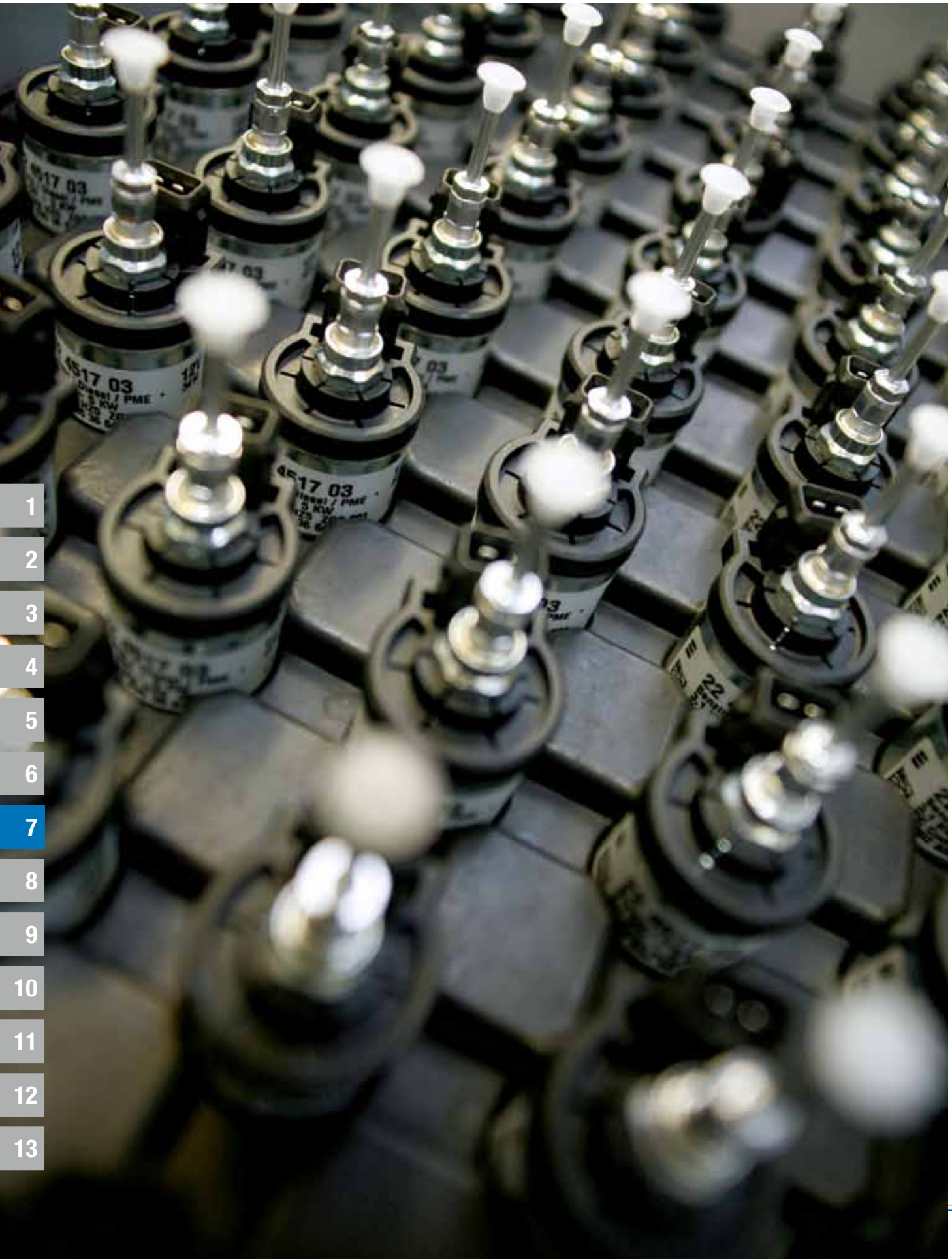
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 40 mm / ø 20 mm					■	■	■	360 00 333

Protection sleeve
APK, temperature and scuff protector
for water hoses with ø 18 mm and ø 20 mm



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 30 mm, L = 2 m					■	■		10 2114 25 02 00

■ suitable for unlimited use ~ suitable for limited use


4517 03
4517 03

7 | AIR SYSTEM PARTS

GENERAL INFORMATION:

- A heater has the largest how air flow when operated as a free-blowing unit. Parts carrying hot air reduce the hot air flow.
- To check the extent to which your planned installation would unacceptably reduce the hot air flow, we have defined a unit guide number for every heater and a part guide number for the hot air system parts.
- The sum of part guide numbers of the hot air supply parts connected to the unit must not be larger than the unit guide number, as otherwise the outflow temperature will be unacceptably high so that the overheating sensor triggers.
- If the sum of the part guide numbers is larger than the unit guide number. choosing a larger diameter for the hot air system parts can reduce this sum.

RULE OF THUMB:

Double the cross section or 2 parts placed parallel = 1/4 of the guide number.

Example:

Hose ø 60,

Cross-section area A = 19.6 cm^2, guide number 1.0

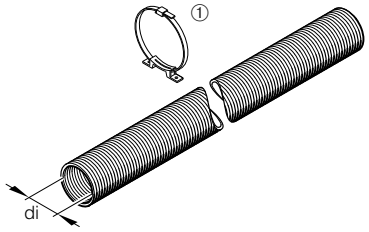
Hose ø 75,

Cross-section area A = 44.2 cm^2, guide number 0.25

For smooth, welded pipes, the part guide number is only half of the flexible pipe with the same diameter (i.e. double pipe length).

7 | AIR SYSTEM PARTS

1
Flexible pipe (by the meter)
APK, for hot air system in the interior

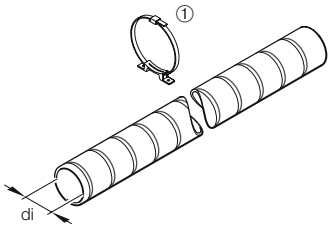


① Air hose fastening see page 122

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 50 mm	~	~						10 2114 29 00 00
di = 60 mm	■	~					~	10 2114 31 00 00
di = 75 mm	■	■	~					10 2114 34 00 00
di = 90 mm		■	■	~				10 2114 37 00 00
di = 100 mm		~	~	■				10 2114 38 00 00

2
Flexible hose (by the meter)
Plastic with metal coil, suitable for outside use

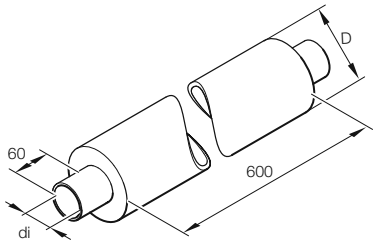


① Air hose fastening see page 122

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 50 mm, (max. 4m long)	~	~						360 00 133
di = 60 mm, (max. 4m long)	■	~						360 00 165
di = 75 mm, (max. 4m long)	■	■	~					360 00 012
di = 90 mm, (max. 4m long)		■	■	~				360 00 013
di = 100 mm, (max. 4m long)		~	~	■				360 00 014

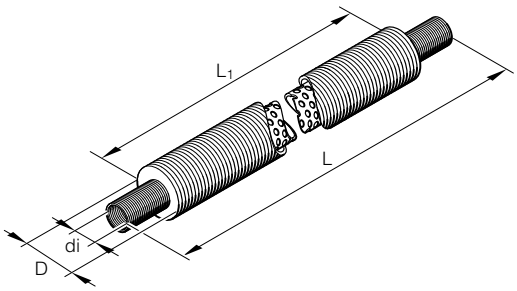
3
Silencer
Hot air, aluminium



~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 75 mm, D = 120 mm	■	■						25 1226 89 15 00
di = 90 mm, D = 140 mm		■	■	~				25 1226 89 17 00
di = 100 mm, D = 150 mm		~	~	■				25 1226 89 56 00

4
Intake silencer
APK, hot air intake

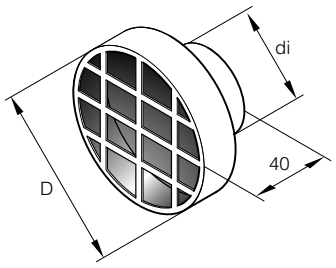


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 75 mm, D = 110 mm, L = 600 mm, L1 = 300 mm	■	■						330 00 072

■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

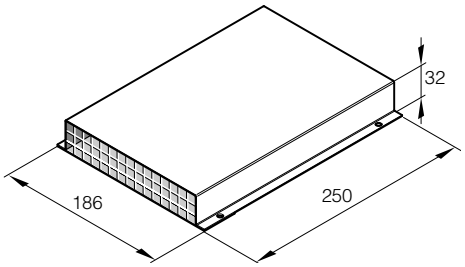
5
Filter
Fitted to the intake side



~ = Check regularly for soiling, clean if necessary.
Warrant protected intake area.

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 60 mm, D = 107 mm	~							25 1688 89 05 00

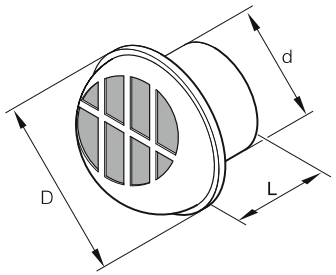
6
Intake slot
Metal



~ = warrant unhindered air inlet.

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	~	~						25 1482 89 04 00

10
Outflow
rotatable

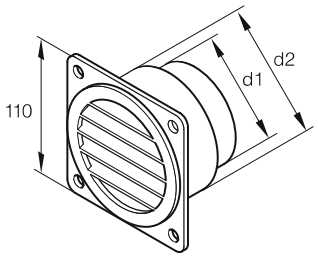


* Can be mounted to outlet hood ø 75

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 50 mm, D = 97 mm, L = 50 mm	~	~						20 1575 80 08 00
d = 60 mm, D = 97 mm, L = 50 mm	■	~						20 1577 89 06 00
* d = 80 mm, D = 97 mm, L = 19 mm	~	~						25 1688 89 04 00
d = 80 mm, D = 120 mm, L = 50 mm	~	~						20 1282 22 00 00

11
Outflow
rotatable



* with 4 stainless steel screws

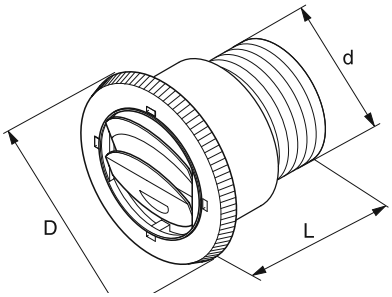
~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d1 = 60 mm, d2 = 100 mm, black	■							22 1000 01 07 00
d1 = 75 mm, d2 = 100 mm, black	■	■						22 1050 89 21 00
d1 = 90 mm, d2 = 100 mm, black		■	■	~				20 1609 80 09 00
* d1 = 60 mm, d2 = 100 mm, white	■							22 1000 01 11 00
* d1 = 75 mm, d2 = 100 mm, white	■	■						22 1000 01 12 00
* d1 = 90 mm, d2 = 100 mm, white		■	■	~				22 1000 01 13 00

■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

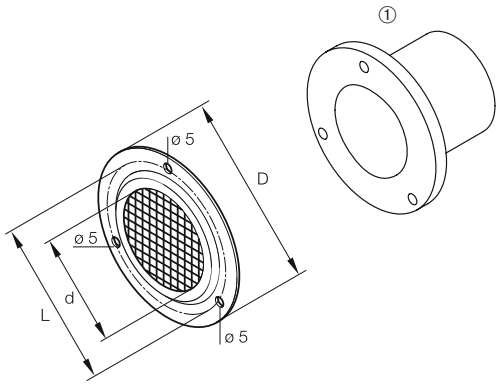
12
Round nozzle
with slat closure, lockable
only for use with 2-duct hot air system



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm, D = 100 mm, L = 63 mm, black	■							330 31 313
d = 75 mm, D = 100 mm, L = 50 mm, black	■	■						330 31 311
d = 90 mm, D = 120 mm, L = 62 mm, black		■	■	~				330 31 315
d = 60 mm, D = 100 mm, L = 63 mm, white	■							330 31 314
d = 75 mm, D = 100 mm, L = 50 mm, white	■	■						330 31 312
d = 90 mm, D = 120 mm, L = 62 mm, white		■	■	~				330 31 316

~ = check connection diameter

13
Grille

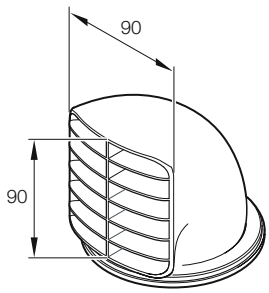


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
* D = 93 mm, L = 75, d = 60 mm Plastic	■							22 1000 01 00 01
D = 132 mm, L = 120, d = 95 mm Nickel-plated		■	■	■				25 1226 89 05 00
D = 132 mm, L = 120, d = 100 mm Plastic		■	■	■				25 1729 89 00 05

① Hose connecting socket see page 77

* for items 15 and 16

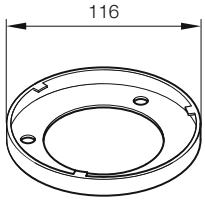
14
Outflow
rotatable



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	■	■	■					20 1716 80 00 02

~ = check connection diameter

15
Ring
rotatable, for outlet item 14

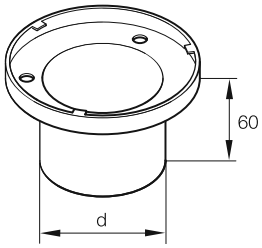


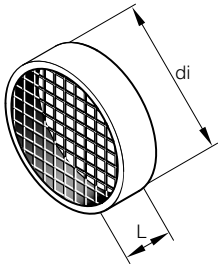
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	■	■	■					20 1716 80 00 01

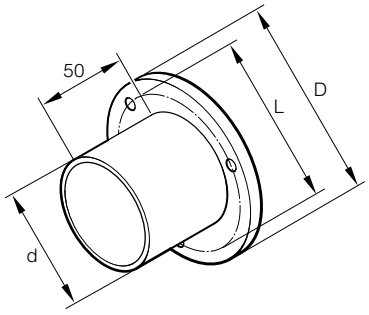
■ suitable for unlimited use ~ suitable for limited use

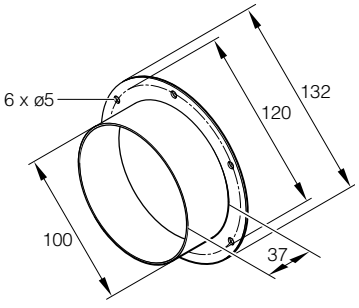
7 | AIR SYSTEM PARTS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
16 Socket rotatable, for outlet item 14								
d = 75 mm	■	■	~					25 1794 80 00 01
d = 90 mm		■	■					25 1729 89 00 01
~ = check connection diameter								
17 Grille								
di = 60 mm, L = 20 mm	■							25 1688 80 06 00
di = 75 mm, L = 22 mm	■	■	~					25 1552 05 01 00
di = 90 mm, L = 24 mm		■	■	~				25 1729 80 00 01
di = 100 mm, L = 22 mm		~	~	■				25 1226 89 44 00
~ = check connection diameter								
18 Hose connecting socket suitable for grille item 13								
d = 50 mm, D = 97 mm, L = 75	~							20 1575 80 08 01
d = 60 mm, D = 97 mm, L = 75	■	~						20 1577 89 06 01
~ = check connection diameter								
19 Hose connecting socket Metal, suitable for grille item 13								
		~	~	■				25 1226 89 00 40
~ = check connection diameter								





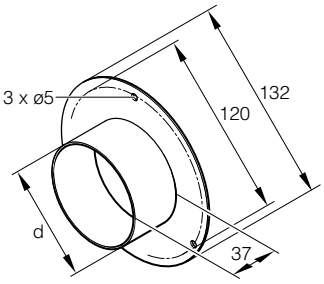




■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

20
Hose connecting socket
Metal

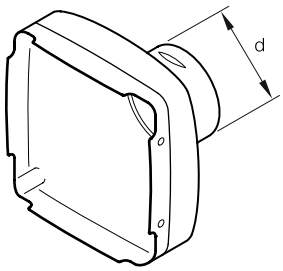


* suitable for grille item 13

~ = check connection diameter

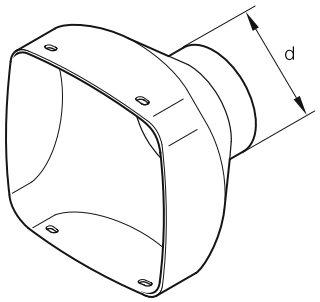
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
* d = 75 mm	~	~	~					25 1226 89 00 12
d = 90 mm		■	■	~				20 1297 00 00 01

21
Hood



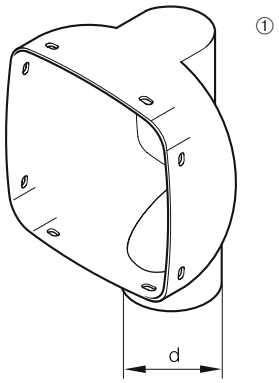
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm	■							22 1000 01 00 16
d = 75 mm	■							22 1000 01 00 17
d = 75 mm		■						22 1000 01 00 18
d = 90 mm		■						22 1000 01 00 19

22
Hood



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 90 mm			■					25 1729 01 09 00

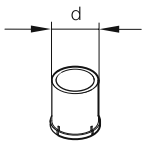
30
Connector



① Connection socket see item 31

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 90 mm			■					25 1729 89 10 00

31
Connection socket
for connector item 30 / 32



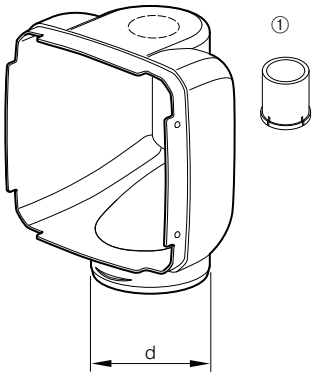
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 25 mm	~	~	~					20 1575 89 00 15
d = 50 mm	■	■	~					22 1000 01 00 04

■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

32
Connector

Caution!
Note higher part guide number

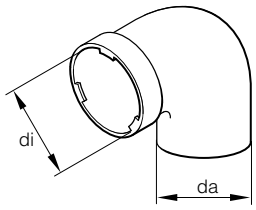


① Connection socket item 31

* not for Airtronic D4 Plus

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm	■							22 1000 01 00 20
d = 75 mm	■							22 1000 01 00 28
* d = 75 mm		■						22 1000 01 00 22
* d = 90 mm		■						22 1000 01 00 23

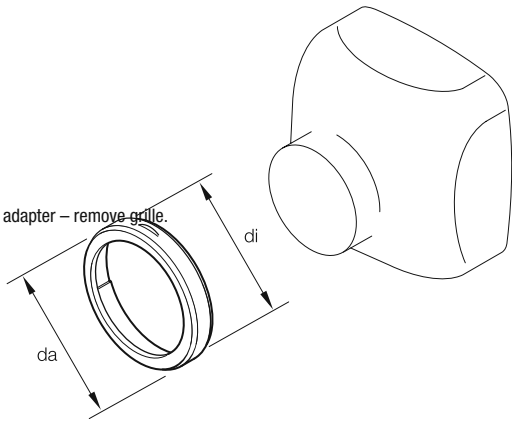
33
Pipe elbow 90°



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 60 mm, da = 60 mm	■							25 1688 89 00 01
di = 75 mm, da = 75 mm	■	■						25 1482 89 00 05

34
Ring

Safety grille (item 17) with di = 90 mm, can be used as adapter – remove grille.

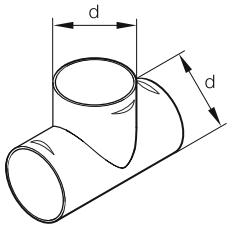


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 60 mm, da = 75 mm	■							22 1000 01 00 08
di = 75 mm, da = 90 mm	■	■						25 1822 89 00 01
di = 90 mm, da = 100 mm		■	■					25 1729 80 00 01

■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

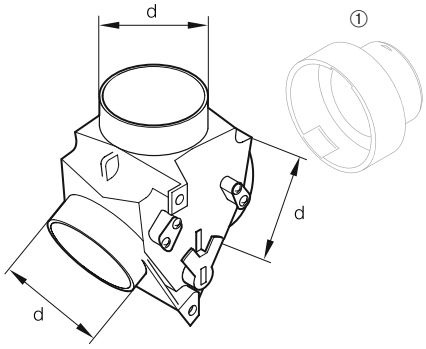
35
T-branching piece



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Metal, d = 50 mm	~	~						20 1575 89 18 00
Plastic, d = 60 mm	■							25 1688 89 00 02
Plastic, d = 75 mm	■	■						22 1000 01 00 27
Metal, d = 75 mm	■	■						25 1482 89 07 00
Plastic, d = 90 mm		■						22 1000 01 00 26
Metal, d = 100 mm		~	~	■				20 1667 89 03 00

~ = check connection diameter

40
Control flap

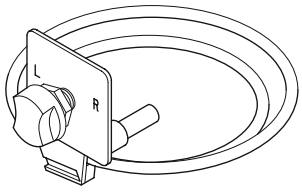


① Adapter see item 45

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm	■							330 00 174
d = 90 mm	~	■	■					330 00 175

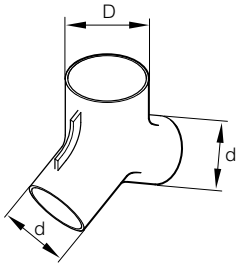
~ = check connection diameter

41
Control unit
for control flap item 40, 2 m long



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	■	■	■	■				22 1000 01 03 00

42
Y-branching piece



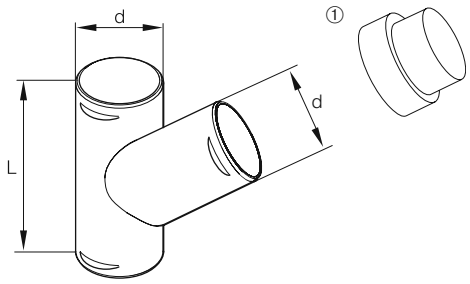
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Plastic, D = 60 mm, d = 50 mm	■							25 1688 89 00 03
Metal, D = 75 mm, d = 50 mm	■	■	~					25 1482 80 08 00

~ = check connection diameter

■ suitable for unlimited use ~ suitable for limited use

7 | AIR SYSTEM PARTS

43
Y-branching piece

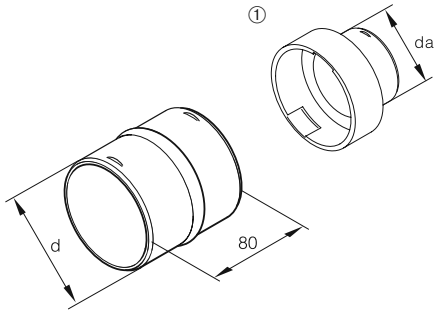


① Adapter see item 45

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60, L = 145 mm	■							25 1774 89 00 05
d = 75, L = 175 mm	■	■	~	~				25 1226 89 00 44
d = 90, L = 180 mm	~	■	~	~				22 1000 01 00 21
d = 100, L = 230 mm		~	~	■				25 1226 89 00 45

44
Hose connector

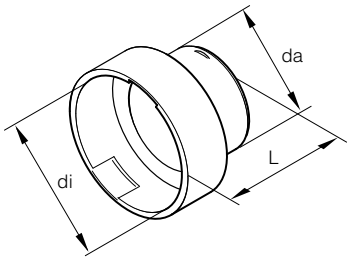


① Adapter see item 45

~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm, da = 75 mm	■							22 1000 01 00 05
d = 75 mm, da = 75 mm	■	~	~	~				22 1000 01 00 06
d = 90 mm, da = 75 mm	~	■	~	~				22 1000 01 00 24
d = 100 mm, da = 75 mm		~	~	■				22 1000 01 00 07

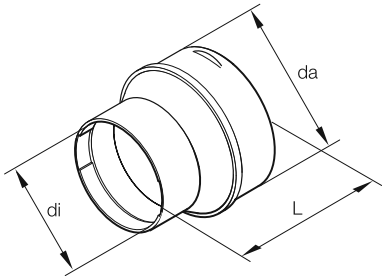
45
Adapter
for item 40, 43 and 44



~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 75 mm, da = 50 mm, L = 50 mm	■	■	~					25 1226 89 00 46
di = 75 mm, da = 60 mm, L = 45 mm	■	■	~					25 1226 89 00 50
di = 90 mm, da = 75 mm, L = 45 mm	~	■	■	~				22 1000 01 00 12
di = 100 mm, da = 50 mm, L = 62 mm		~	~	■				25 1226 89 00 48
di = 100 mm, da = 60 mm, L = 57 mm		~	~	■				25 1226 89 00 51
di = 100 mm, da = 75 mm, L = 50 mm	~	~	~	■				25 1226 89 00 47
di = 100 mm, da = 90 mm, L = 42 mm		~	~	■				25 1226 89 00 49

46
Adapter



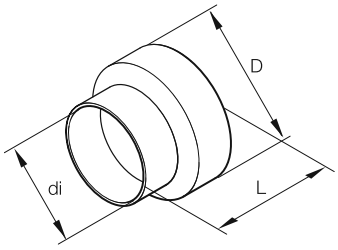
~ = check connection diameter

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 60 mm, da = 75 mm, L = 40,5 mm	■	~						25 1688 89 00 10

■ suitable for unlimited use ~ suitable for limited use

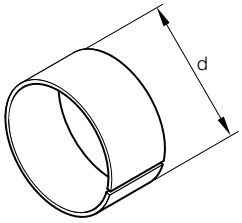
7 | AIR SYSTEM PARTS

47
Adapter
Metal



~ = check connection diameter		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	di = 90 mm, D = 100 mm, L = 46 mm		■	■	~				20 1462 89 00 01

48
Sleeve / adapter



~ = check connection diameter		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	d = 90 mm / 100 mm			~					20 1607 80 00 01

■ suitable for unlimited use ~ suitable for limited use

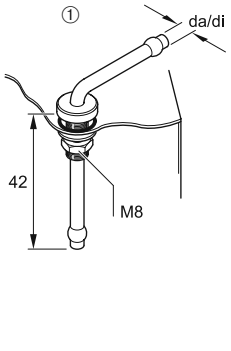
8 | FUEL SYSTEM PARTS

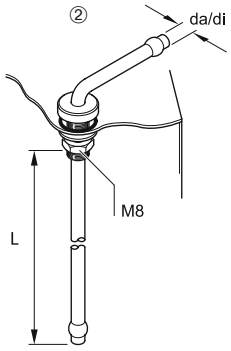
GENERAL INFORMATION:

- Protect the fuel lines, filter and metering pump from impermissible heating; do not install near to silencers and exhaust pipes.
- When routing fuel line, fuel filter and metering pump near to the rear axle, take note of the spring travel of the rear axle.
- Use a sharp knife only to trim the fuel hoses and pipes.
- Interfaces must not be crushed and must be free of burrs.
- Please also comply with the safety instructions for this chapter in the heater documentation.

8 | FUEL SYSTEM PARTS

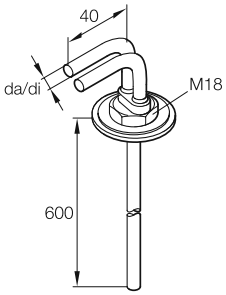
Tank connection
for car with pump inside tank





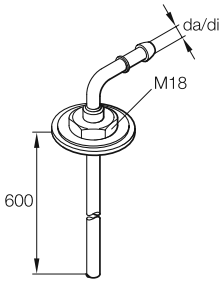
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
① da = 4 mm, di = 2 mm	■	■	■		■			22 1000 20 15 00
② da = 4 mm, di = 2 mm, L = 209 mm	■	■	■		■			22 1000 20 24 00
② da = 4 mm, di = 2 mm, L = 295 mm	■	■	■		■			22 1000 20 16 00

Tank connection with return
for commercial vehicles



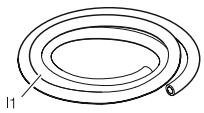
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
da = 6 mm, di = 4 mm							■	25 1226 89 40 00

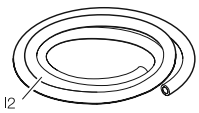
Tank connection
for commercial vehicles



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
da = 6 mm, di = 2 mm	■	■	■		■			25 1226 89 50 00
da = 6 mm, di = 4 mm				■		■		25 1156 30 00 00

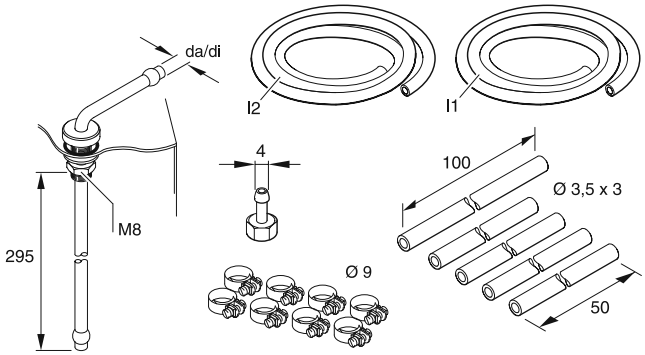
Kit – fuel line for E85
only for Hydronic 2 – B5 S





	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
l1 = pipe ø 4x1.25; L = 6 m, black / l2 = pipe ø 4x1; L = 2 m, black					~			22 1000 20 31 00

Tank connection kit
for car with pump inside tank

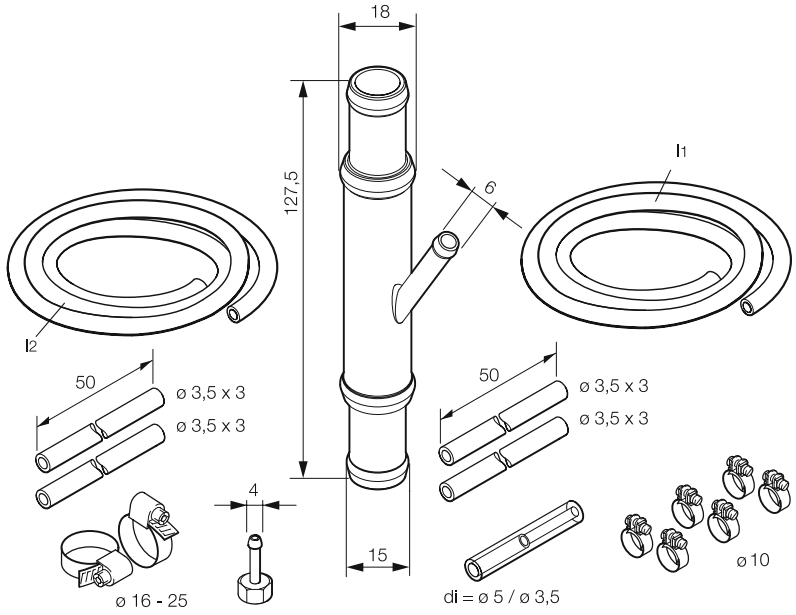


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
l1 = pipe ø 4x1.25; L = 6 m / l2 = pipe ø 4x1; L = 6 m / da = 4 mm, di = 2 mm	■	■	■		■			22 1000 20 13 00

■ suitable for unlimited use ~ suitable for limited use

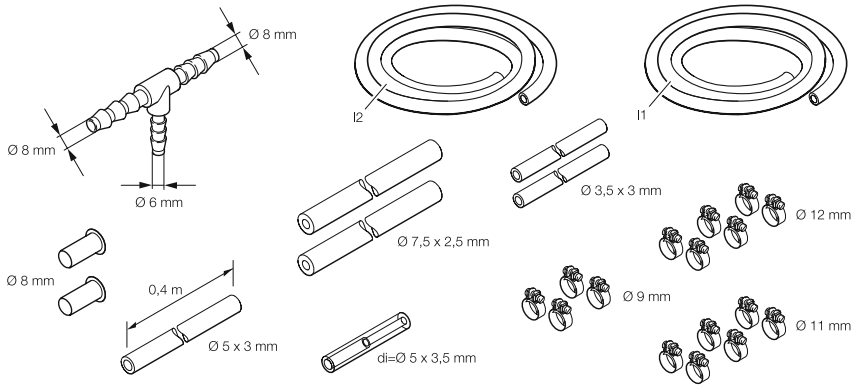
8 | FUEL SYSTEM PARTS

Fuel supply kit
For installation in the tank vent hose



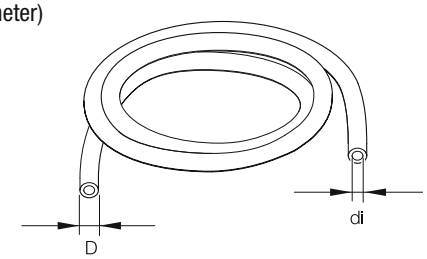
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
l1 = steel pipe ø 4x1, L = 1 m, / l2 = plastic pipe ø 4x1, L = 2 m	■	■			■			22 1000 20 06 00

Fuel supply kit
Tank extractor feed line



l1 = pipe ø 4x1.25; L = 6 m / l2 = pipe ø 6x1; L = 2 m	■	■	■		■	■		22 1000 20 17 00

Fuel hose (by the meter)

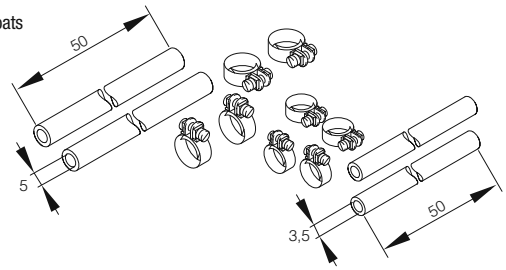
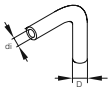
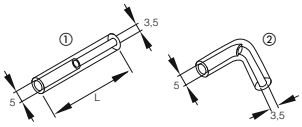
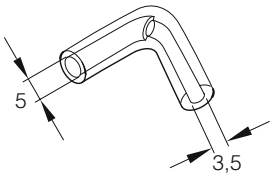
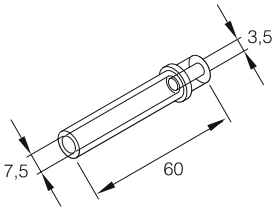
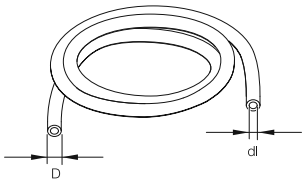


di = 3.5 mm, D = 9.50 mm	■	■	■		■			360 75 300
* di = 3,5 mm, D = 9,50 mm	■	■	■		■			360 75 400
di = 5.0 mm, D = 11.0 mm	■	■	■	■	■	■		360 75 350
* di = 5,0 mm, D = 11,0 mm	■	■	■	■	■	■		360 75 401
* di = 7,5 mm, D = 13,5 mm	~	~	~	~	~	~		360 75 402
* di = 9,0 mm, D = 15,0 mm	~	~	~	~	~	~		360 75 404

* PME compatible

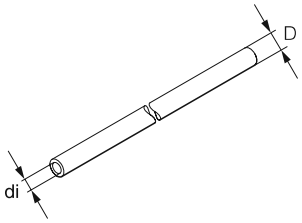
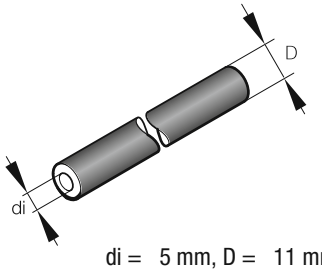
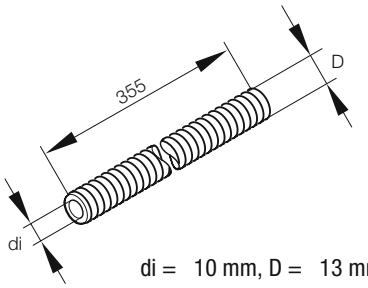
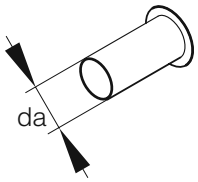
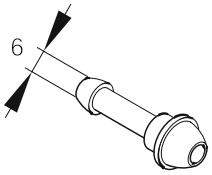
■ suitable for unlimited use ~ suitable for limited use

8 | FUEL SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Fuel supply kit for routing the fuel line in the engine compartment of boats									
Fire-resistant hoses as per DIN EN ISO 7840		■	■	■	■	■	■		22 1000 20 10 00
Fuel hose 105° elbow PME compatible									
di = 3.5 mm, D = 9.5 mm		■	■	■		■	■		25 1888 80 01 01
Adapter									
* L = 40 mm		■	■	■		■			25 1888 80 01 02
L = 120 mm		■	■	■		■			25 1596 80 00 01
Adapter 105° elbow PME compatible									
		■	■	■		■			25 2110 05 03 01
Adapter for fuel pipes									
		■	■	■		■			22 1000 20 30 00
Fuel pipe (by the meter) Plastic									
natural-coloured, di = 1,5 mm , D = 4 mm		■	■	■		■			890 31 118
natural-coloured, di = 2 mm , D = 4 mm		■	■	■		■			890 31 055
resistant to ethanol, di = 1 mm , D = 4 mm						~			890 31 138
resistant to ethanol, di = 1,25 mm , D = 4 mm						~			890 31 139
blue, di = 2 mm , D = 4 mm		■	■	■		■			890 31 054
black, di = 2 mm , D = 6 mm		■	■	■		■	■		890 31 125
blue, di = 4 mm , D = 6 mm					■		■		890 31 101

■ suitable for unlimited use ~ suitable for limited use

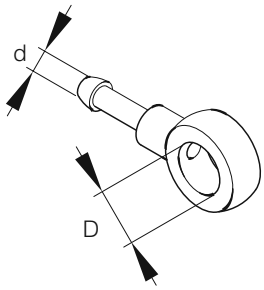
8 | FUEL SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Fuel pipe (by the meter) Plastic									
di = 2 mm, D = 4 mm		■	■	■		■	■		849 10 004
Foam rubber hose (by the meter) Contact protection and sound-proofing for fuel pipe									
di = 5 mm, D = 11 mm		■	■	■	■	■	■		360 75 200
Heat protection hose for fuel pipe Glass fabric laminated on aluminium can also be used for electric cables									
di = 10 mm, D = 13 mm		■	■	■	■	■	■	■	360 00 183
Reinforcement sleeve Brass, for plastic fuel pipe 10 pcs in a pack									
da = 4 mm for pipe 6x1		■	■	■	■	■	■		22 1000 20 01 00
da = 6 mm for pipe 8x1					■		■	■	22 1000 20 02 00
da = 8 mm for pipe 10x1					■		■	■	22 1000 20 03 00
Hose nipple straight, for union nut M 10 x 1									
					■		■	■	25 1351 88 01 01
Union nut for hose nipple, straight									
M10 x 1					■		■	■	116 10 002

■ suitable for unlimited use ~ suitable for limited use

8 | FUEL SYSTEM PARTS

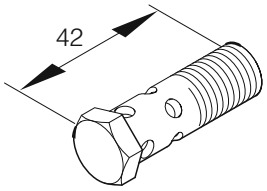
Ring fitting with hose connection



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 5 mm, D = 8 mm				■		■	■	25 1352 88 00 05
d = 5 mm, D = 14 mm				■		■	■	25 1373 88 03 00

Banjo bolt, M14 x 1.5

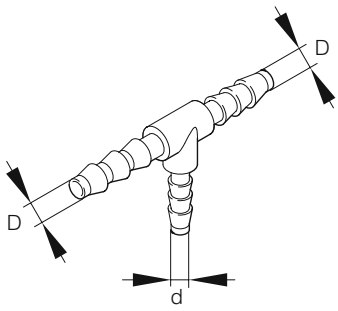
for ring piece



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
				■		■	■	25 1373 88 00 01

Pipe T-piece

Plastic

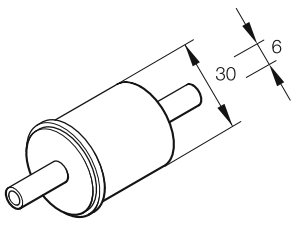


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 4 mm, D = 8 mm	~	~	~	~	~	~		262 31 155
d = 5 mm, D = 5 mm	~	~	~	~	~	~	~	262 31 149
d = 6 mm, D = 6 mm	~	~	~	~	~	~	~	262 31 150
d = 6 mm, D = 8 mm	~	~	~	~	~	~	~	262 31 151
d = 6 mm, D = 10 mm	~	~	~	~	~	~	~	262 31 152
d = 6 mm, D = 12 mm	~	~	~	~	~	~	~	262 31 153
d = 6 mm, D = 15 mm	~	~	~	~	~	~	~	262 31 154

~ = check hose diameter

Fuel filter with paper insert

Plastic / fitted before fuel circulation pump

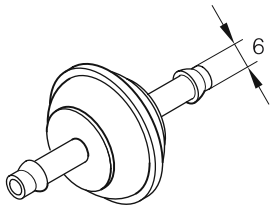
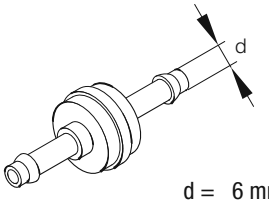
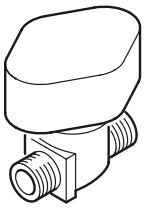
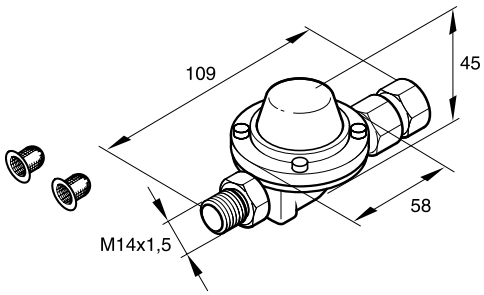
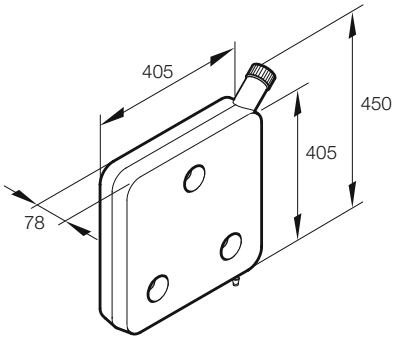


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	~	~	~	~	~	~	~	25 1156 20 00 09

~ = Caution! Only use fuel filter for fuel circulation pump

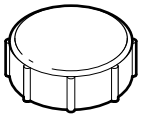
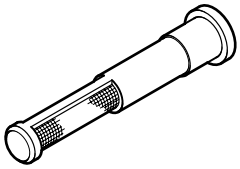
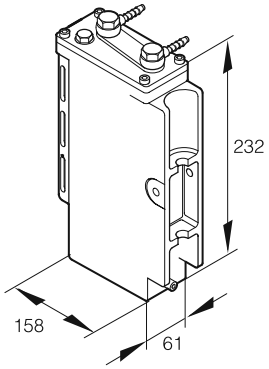
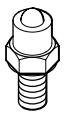
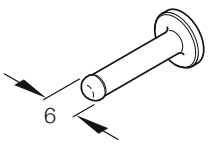
■ suitable for unlimited use ~ suitable for limited use

8 | FUEL SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Fuel filter with metal strainer Plastic / for metering pump with pot-type strainer		■	■	■	■	■	■		25 1226 89 00 37
Non-return valve									
d = 6 mm					■		■	■	244 31 060
d = 8 mm					■		■	■	244 31 061
Quick-closing valve									
								■	330 00 210
Pressure reducer with pot-type strainer and connection piece Pre-pressure 0.2 – 4 bar Control pressure min. 50 mbar, max. 150 mbar		■	■	■		■			22 1000 20 08 00
Fuel tank 10 l, complete Plastic									
~ = only suitable for diesel /biodiesel (FAME) / fuel oil		~	~	~	~	~	~	~	22 1000 20 28 00

■ suitable for unlimited use ~ suitable for limited use

8 | FUEL SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Fuel tank 10 l, complete – single part Cover Plastic		~	~	~	~	~	~	~	22 1000 20 22 00
Fuel tank 10 l, complete – single part Fuel strainer		~	~	~	~	~	~	~	22 1000 20 28 03
Fuel tank 10 l, complete – single part Seal		~	~	~	~	~	~	~	22 1000 20 28 04
Return tank Fuel tank for petrol heaters, 0.6 l						~			330 00 166
Vent valve for return tank Necessary for closed-circuit fuel return systems!						~			330 00 167
Bung for fuel line Aluminium		~	~	~	~	~	~		24 0207 01 00 02

~ = Limited heater run time
Check whether vent valve needed

~ = check hose diameter

suitable for unlimited use ~ suitable for limited use

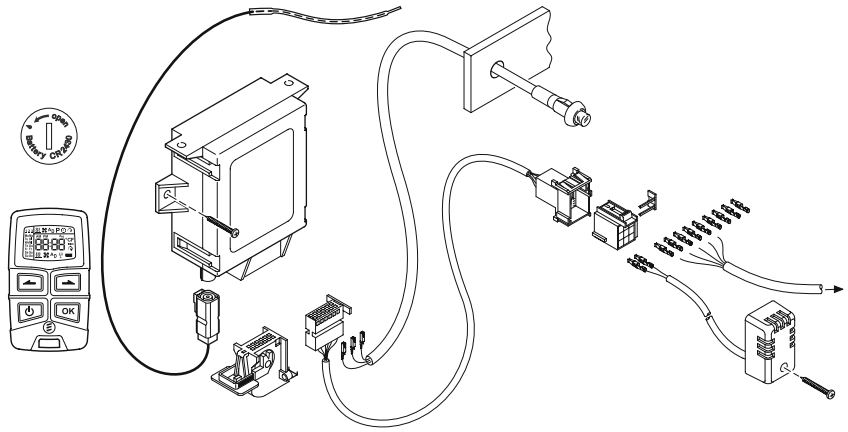
9 | ELECTRICAL PARTS / TEST UNITS

GENERAL INFORMATION:

- A timer makes it possible to switch the heater on manually or automatically at a predefined point in time (pre-heating mode).
- After-running of the heater must be warranted in any case. This also applies when the whole electric system of a battery can be shut down by means of a main battery switch (special electric circuit or clear instruction).
- The following rule of thumb applies for safeguarding the power supply: Charging time = heating time.
- In motor homes or commercial vehicles, under certain circumstances the heater may be operated uninterrupted for longer periods. In this case please, take note of the energy balance on board.
- For further details, please refer to the Technical Description and installation instructions.
- Please also comply with the safety instructions for this chapter in the heater documentation.

9 | ELECTRICAL PARTS

EasyStart R+ radio remote control

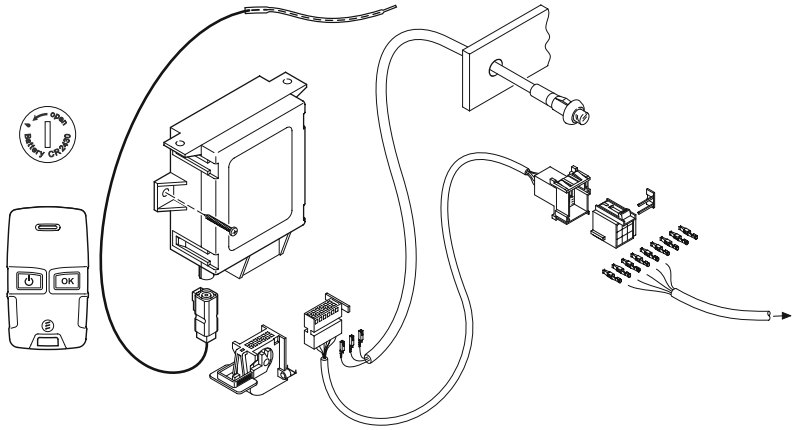


Sensor, outdoor temperature, display (see page 96)

Air heaters 8L / V7S also need a setpoint transducer

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
12 V / 24 V	■	■	■	~	■	■	■	22 1000 32 80 00

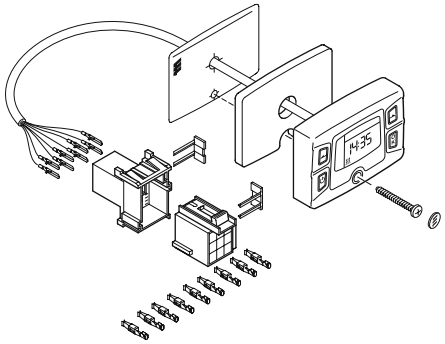
EasyStart R radio remote control



Air heaters 8L / V7S also need a setpoint transducer

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
12 V / 24 V	■	■	■	~	■	■	■	22 1000 32 85 00

Timer EasyStart T



Sensor, outdoor temperature, display (see page 96)

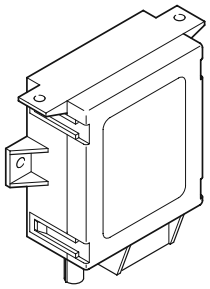
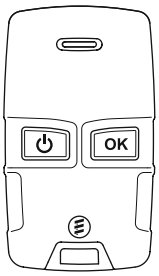
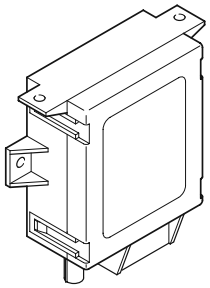
Installation frame for EasyStart T and console (see page 128)

Air heaters 8L / V7S also need a setpoint transducer

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
12 V / 24 V	■	■	■	~	■	■	■	22 1000 32 88 00

■ suitable for unlimited use ~ suitable for limited use

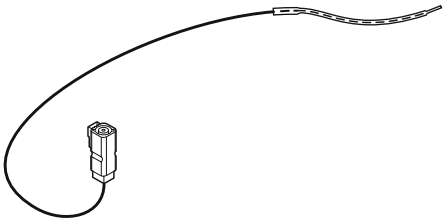
9 | ELECTRICAL PARTS

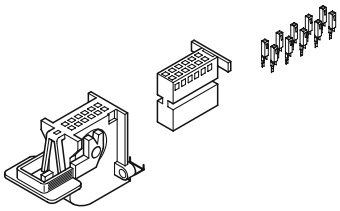
		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
EasyStart R+ – single part Mobile part									
12 V / 24 V		■	■	■	~	■	■	■	22 1000 32 81 00
EasyStart R+ – single part Stationary part									
		■	■	■	~	■	■	■	22 1000 32 82 00
EasyStart R – single part Mobile part									
		■	■	■	~	■	■	■	22 1000 32 86 00
EasyStart R – single part Stationary part									
		■	■	■	~	■	■	■	22 1000 32 87 00
EasyStart R+ / EasyStart R – single part Battery compartment cover									
		■	■	■	~	■	■	■	22 1000 32 91 00

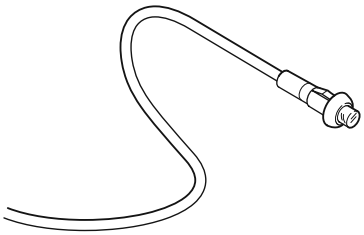
■ suitable for unlimited use ~ suitable for limited use

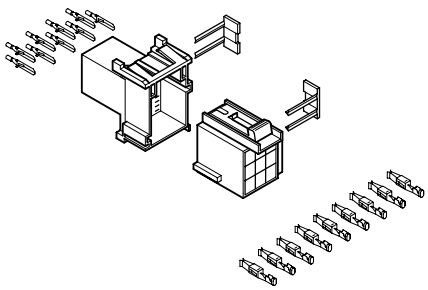
9 | ELECTRICAL PARTS

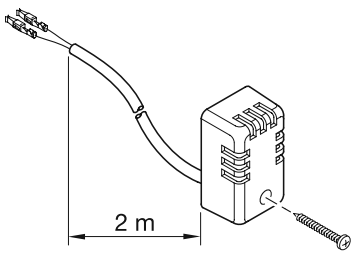
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
EasyStart R+ / EasyStart R – single part Antenna	■	■	■	■	■	■	■	22 1000 32 83 00
EasyStart R+ / EasyStart R – single part Electr. connection parts	■	■	■	■	■	■	■	22 1000 32 90 00
EasyStart R+ / EasyStart R / EasyStart T – single part Button	■	■	■	■	■	■	■	22 1000 32 84 00
EasyStart R+ / EasyStart R / EasyStart T – single part Electrical connection parts	■	■	■	■	■	■	■	22 1000 32 92 00
EasyStart R+ / EasyStart T – single part Sensor, room temperature, display	■	■	■	■	■	■	■	22 1000 32 97 00





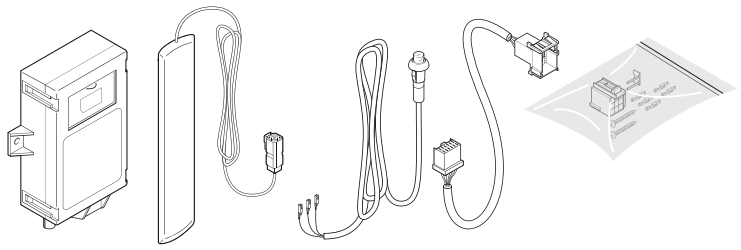
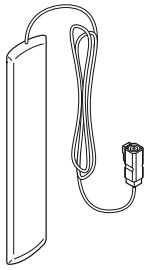
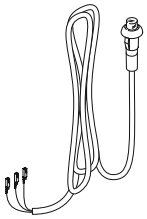






■ suitable for unlimited use ~ suitable for limited use

9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Calltronic remote control by phone									
12 V / 24 V		■	■	■	■	■	■		22 1000 33 82 00
Calltronic single part Windscreen antenna		■	■	■	■	■	■		22 1000 33 84 00
Calltronic single part Button		■	■	■	■	■	■		22 1000 33 85 00

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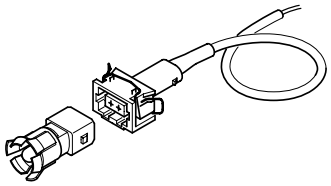
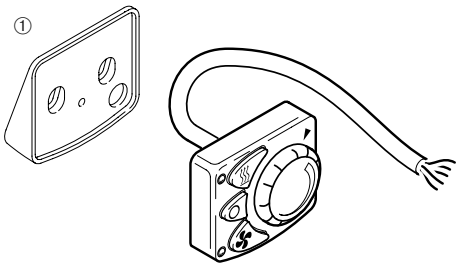
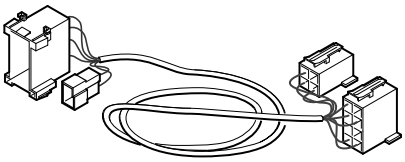
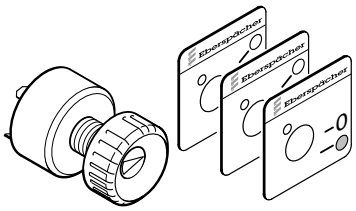
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Sensor – outdoor temperature, display for module timer, TP5 and EasyStart R+ / T		■	■	■	■	■	■	■	25 1482 89 41 00
Mini controller Airtronic with connection parts		■	■	■					22 1000 32 07 00
① Consoles see page 128	12 V / 24 V								
Lead harness, mini controller 5 m long					■				22 1000 30 03 00
Universal switch							■	■	25 1380 89 04 00
Light bulb for universal switch									
	12 V						■	■	207 00 005
	24 V						■	■	207 00 006

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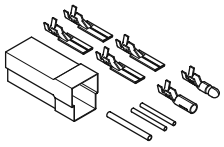
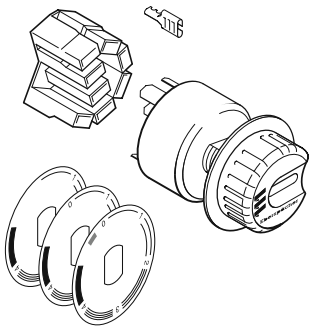
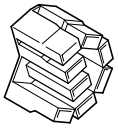
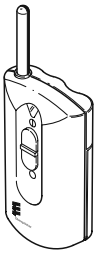
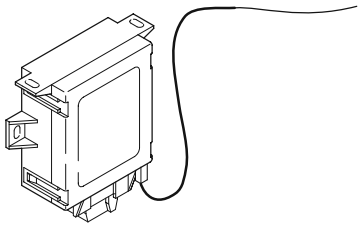
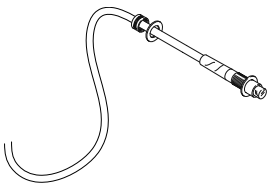
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Electrical connection parts for universal switch							■	■	25 1380 89 05 00
Control unit * with receptacle housing and receptacle ** without receptacle housing and receptacle ~ = no venting possible, no diagnosis output.									
	* 12 V	~	~						25 1895 71 00 00
	* 24 V	~	~						25 1896 71 00 00
	** 12 V			■	■				25 1767 71 00 00
	** 24 V			■	■				25 1768 71 00 00
Control unit – single part **7-pin receptacle housing**		~	~	■	■				206 31 282
Control unit – single part **Receptacle**		~	~	■	■				206 36 151
Heat / Ventilate switch with console						■			22 1000 31 89 00

■ suitable for unlimited use ~ suitable for limited use

9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
TP41i – single part Radio transmitter Single part – e.g. as second transmitter		■	■	■	■	■	■	■	22 1000 31 08 00
TP41i – single part Radio receiver		■	■	■	■	■	■	■	22 1000 31 64 00
TP41i – single part Button		■	■	■	■	■	■	■	22 1000 31 30 00

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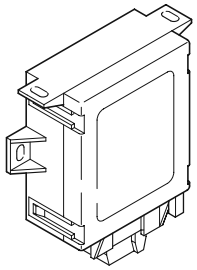
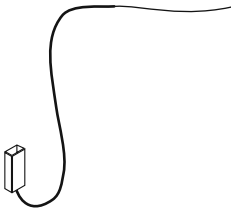
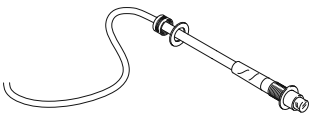
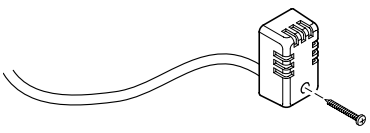
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
TP5 – single part Battery compartment cover									
from production date	33 / 02	■	■	■	■	■	■	■	22 1000 32 02 02
TP5 – single part Stationary part		■	■	■	■	■	■	■	22 1000 32 13 00
TP5 – single part Antenna		■	■	■	■	■	■	■	22 1000 32 11 00
TP5 – single part Button		■	■	■	■	■	■	■	22 1000 31 30 00
TP5 – single part Sensor, room temperature, display		■	■	■	■	■	■	■	22 1000 32 49 00

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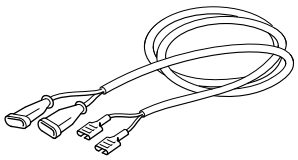
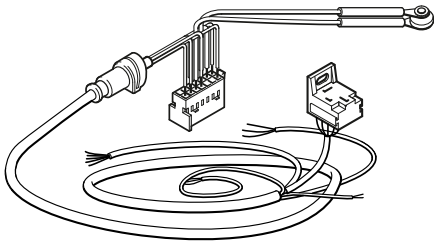
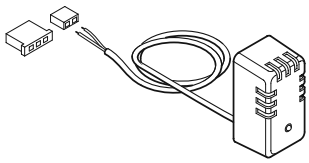
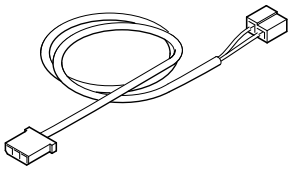
9 I ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Cable loom 8 m long									
~ = for metering pump with 2 flat pins		~	~	~	~	~	~		20 1579 80 04 00
Cable harness ADR / ADR99 can only be combined with the module timer									
Use for D 1 L C (24 V) / D 3 L C (24 V) / D 3 L P (24 V)									22 1000 30 93 00
Sensor – external control temperature, interior Cable loom approx. 2 m long									
~ = use with control unit		■	■	■	~				25 1774 89 03 00
Lead harness / temperature sensor									
4 m long, 2-pin		■	■	■	~				25 1688 89 09 00
4 m long, 3-pin		■	■	■	~				25 1482 89 40 00
Installation kit auxiliary heater kit only for Hydronic 2 in conjunction with EasyStart R / R^{+} / T									
						~			24 8532 00 00 00

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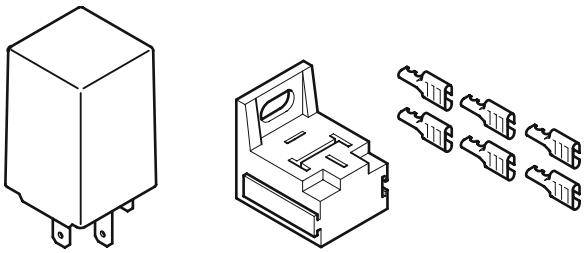
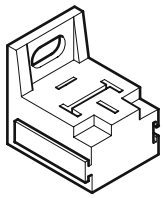
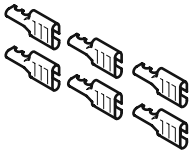
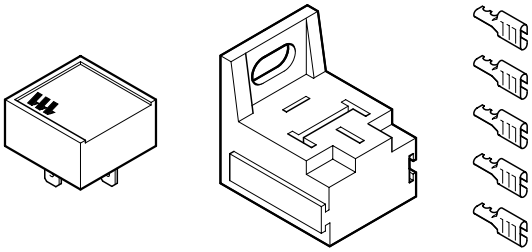
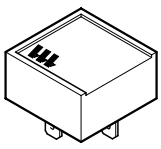
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Voltage divider for fan control	12 V / 0 – 5 V					■			22 1000 32 47 00
	12 V / 0 – 10 V					■			22 1000 32 48 00
Voltage divider for fan control – single part Plug-in base									
						■			203 00 085
Voltage divider for fan control – single part Receptacle									
						■			203 53 020
IPCU retrofit kit									
	12 V	~	~	~	~	~	~		24 0273 00 00 00
~ = for customised retrofit kits please go to Service Portal – EPRO / Accessories / Electric parts									
IPCU retrofit kit – single part Relay									
	12 V	~	~	~	~	~	~		22 1000 32 73 00

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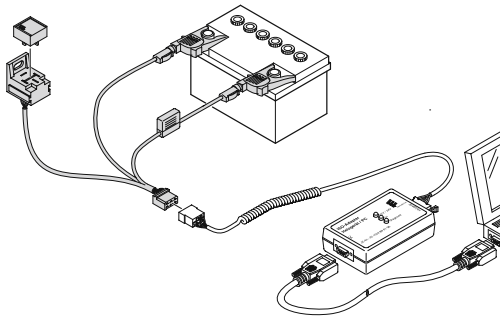
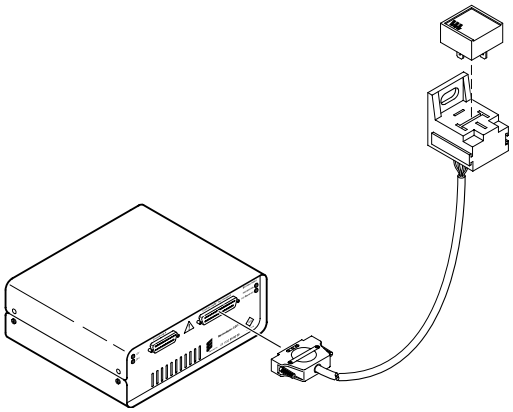
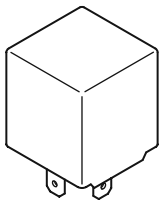
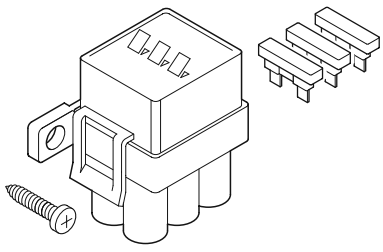
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Adapter IPCU cable for EDiTH Basic		~	~	~	~	~	~		22 1000 32 74 00
IPCU extension for EDiTH Expert		~	~	~	~	~	~		22 1000 32 76 00
Relay, changeover contact max. power consumption 40 A									
12 V		~	~	~	~	~	~		203 00 095
24 V		~	~	~	~	~	~	~	203 00 096
Fuse holder 3-fold with pins with 5 A, 15 A, 25 A fuses and fastening parts		~	~	~	~	~	~	~	22 1000 31 06 00

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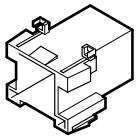
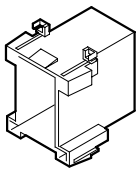
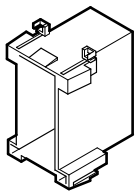
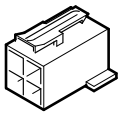
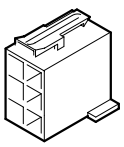
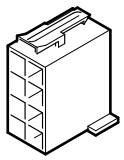
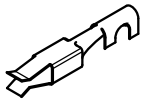
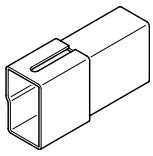
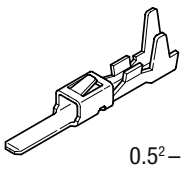
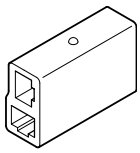
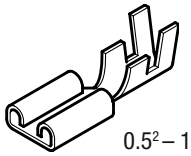
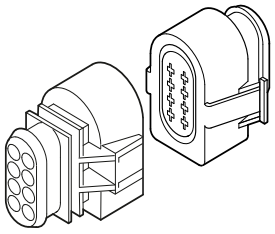
9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Tab connector housing / junior timer for mini timer 22 1000 30 14 00									
4-pin		~	~	~	~	~	~	~	206 31 100
Tab connector housing / junior timer for mini timer 22 1000 32 35 00									
6-pin		~	~	~	~	~	~	~	206 31 106
Tab connector housing / junior timer									
8-pin		~	~	~	~	~	~	~	206 31 101
Tab connector for tab connector housing / junior timer									
$0.5^2 – 1.0^2$		~	~	~	~	~	~	~	206 36 018
Receptacle housing / junior timer for mini timer 22 1000 30 14 00									
4-pin		~	~	~	~	~	~	~	206 31 296
Receptacle housing / junior timer for mini timer 22 1000 32 35 00									
6-pin		~	~	~	~	~	~	~	206 31 297

suitable for unlimited use ~ suitable for limited use

9 | ELECTRICAL PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Receptacle housing / junior timer									
8-pin		~	~	~	~	~	~	~	206 31 298
Receptacle for receptacle housing / junior timer									
$0.5^2 – 1.0^2$		~	~	~	~	~	~	~	206 73 052
$1.0^2 – 2.5^2$		~	~	~	~	~	~	~	206 73 053
Tab connector housing AMP 2.8									
2-pin		~	~	~	~	~	~	~	206 31 018
Tab connector for tab connector housing AMP 2.8									
$0.5^2 – 1.0^2$		~	~	~	~	~	~	~	206 73 001
$1.0^2 – 2.5^2$		~	~	~	~	~	~	~	206 52 151
Receptacle housing AMP 2.8									
		~	~	~	~	~	~	~	206 31 306
Receptacle for receptacle housing AMP 2.8									
$0.5^2 – 1.0^2$		~	~	~	~	~	~	~	206 73 039
$1.0^2 – 2.5^2$		~	~	~	~	~	~	~	206 36 161
8-pin receptacle housing kit for Hydronic, with contacts and seals									
						■			22 1000 30 10 21

■ suitable for unlimited use ~ suitable for limited use

9 | ELECTRICAL PARTS / TEST UNITS

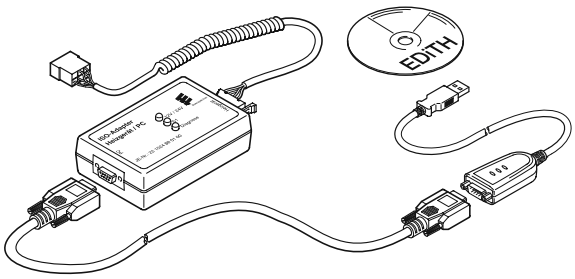
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Connector housing kit for Hydronic, with contacts and seals	■	■	■		■	■		22 1000 31 87 00
Control box for cargo compartment heating, ADR / ADR99								
12 V	■							22 5101 00 30 08
12 V		■						22 5101 00 30 09
24 V	■							22 5102 00 10 04
24 V		■						22 5102 00 10 05
24 V			■					25 1689 50 00 45
Retrofit kit, 24 V				■				24 0189 00 00 00
Altitude kit * Air pressure sensor for heating mode in altitudes of up to 4,000 m asl * Only for Airtronic / Airtronic M and Hydronic with "H-Kit" sticker on the side of the nameplate	■	■	■		■			22 1000 33 22 00
Adaptor cable for air pressure sensor diagnosis	■	■	■		■			22 1000 33 31 00
Diagnostic unit	■	■	■	■	■	■	■	22 1545 89 00 00

■ suitable for unlimited use ~ suitable for limited use

9 I TEST UNITS

EDiTH Basic *

incl. USB adapter to serial port and software CD diagnostic tool EDiTH for testing complete heaters in fitted state



* Change in product name, now ISO adapter

Functions:
- Reading errors from the control box
- Performing diagnosis at the fitted heater
- Turning the heater on directly at the PC
- Visualising the function sequence
- Showing operating status and measured values
- Detecting whether the heater has altitude capability
- Showing heater data
- Help function
- Programming the IPCU
- Multilingual capability

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
	■	■	■		■	■	■	22 1541 89 00 00
EDiTH Basic for Toyota Avensis Illustration / scope of supply see above					■			22 1526 89 00 00
Adaptor cable **for diagnostic unit and EDiTH Basic**								
Airtronic / Airtronic M	■	■	■					22 1000 31 86 00
Hydronic					■			22 1000 31 63 00
Hydronic 2 / Hydronic 2 C					■			22 1000 33 78 00
Hydronic M						■		22 1000 32 52 00
						■		22 1000 33 44 00
Hydronic L / Hydronic L 2							■	22 1000 31 66 00
Adapter cable – obsolete heaters for diagnostic unit and EDiTH Basic								
B / D1 LC compact, B / D3 LC compact, B / D3 LP compact								22 1000 30 69 00
B / D1 LC, B / D3 LC, B / D3 LP, B / D5 LC								22 1000 30 20 00
D9 W, Hydronic 10								22 1000 31 83 00
Adaptor cable vehicle-specific for diagnostic unit and EDiTH Basic								
Toyota					■			22 1526 89 03 00
Neoplan							■	22 1000 31 16 00

■ suitable for unlimited use ~ suitable for limited use

9 | TEST UNITS

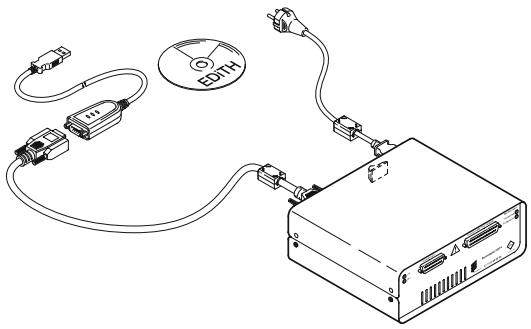
Adapter cable – obsolete heaters

vehicle-specific for diagnostic unit and EDiTH Basic

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
MAN B / D1 LC compact, B / D3 LC compact								22 1000 32 20 00
MAN B / D1 LC / D3 LC								22 1000 30 32 00
RVI B / D1 LC compact, B / D3 LC compact								22 1000 31 25 00
RVI D1 LC								22 1000 31 23 00
DAF B / D1 LC compact, B / D3 LC compact								22 1000 31 21 00

EDiTH Expert *

incl. adapter USB to serial port and software CD diagnostic tool EDiTH



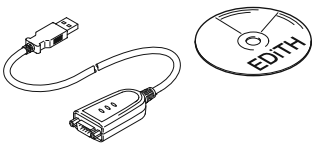
* Change in product name, now ISO EDiTH basic test adapter

Functions:
- Reading errors from the control box
- Performing diagnosis at the dismantled heater
- Testing control box functionality under real load conditions
- Complete test for fitted heaters Hydronic 4/5 without JE diagnosis or enabling the diagnosis hardware
- Detecting whether control the box has altitude capability
- Showing heater data
- Help function
- Programming the IPCU
- Multilingual capability

	■	■	■		■	■	■	22 1542 89 00 00

Adapter USB to serial port

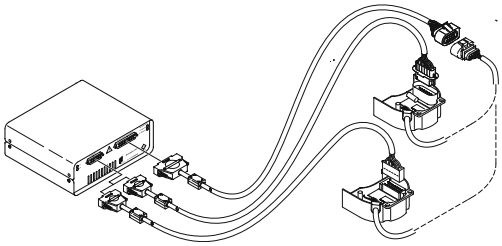
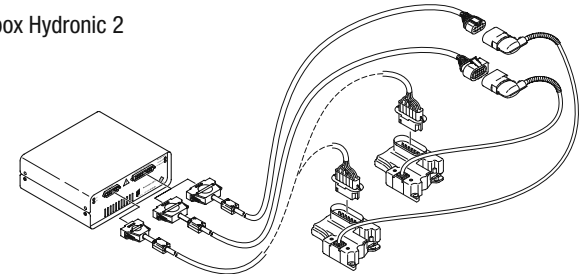
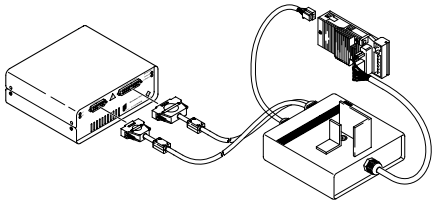
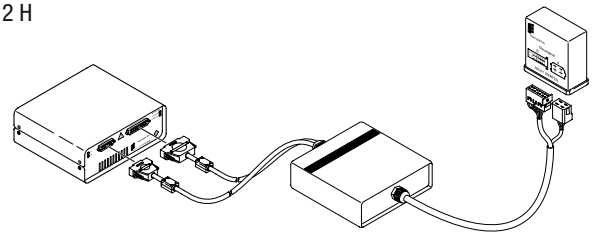
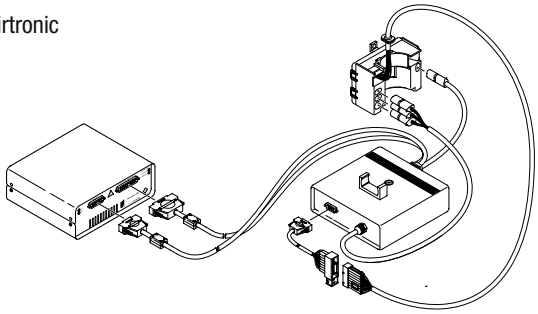
incl. CD with software diagnostic tool EDiTH



	■	■	■		■	■	■	22 1543 89 00 00

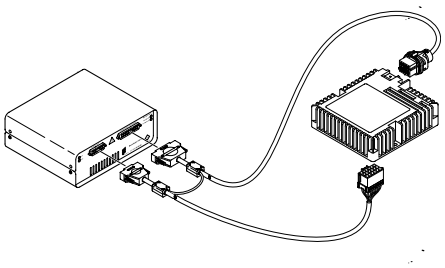
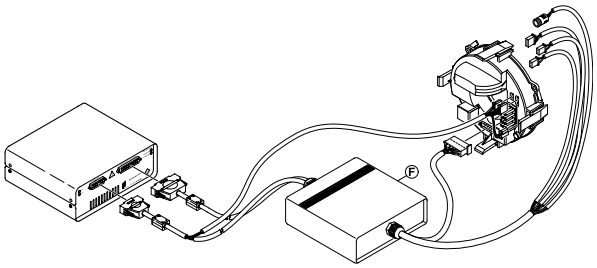
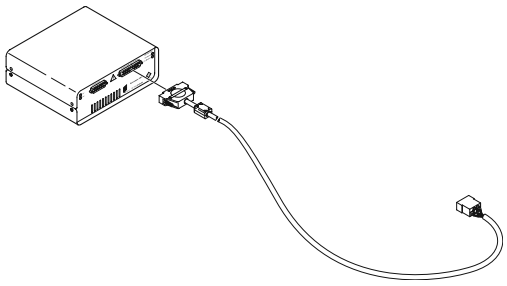
■ suitable for unlimited use ~ suitable for limited use

9 I TEST UNITS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
EDiTH Expert extension for control box Hydronic 3 / 4 / 5 					■			22 1533 89 00 00
EDiTH Expert extension for control box Hydronic 2 								22 1534 89 00 00
EDiTH Expert extension for control box D2 I  B / D1 LC compact, B / D3 LC compact								22 1535 89 00 00
EDiTH extension for control box D 2 H  B / D1 LC, B / D3 LC								22 1536 89 00 00
EDiTH Expert extension for control box Airtronic 	■	■	■					22 1537 89 00 00

■ suitable for unlimited use ~ suitable for limited use

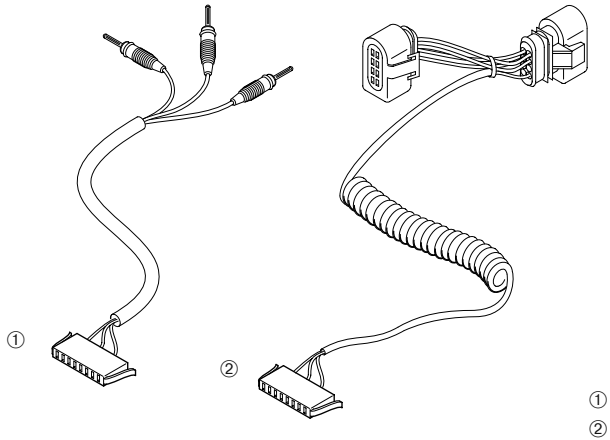
9 | TEST UNITS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
EDiTH Expert extension for control box Hydronic M  Hydronic M only						■		22 1538 89 00 00
EDiTH Expert extension for control box Hydronic L 							■	22 1539 89 00 00
EDiTH Expert extension for complete test 					■			22 1540 89 00 00

■ suitable for unlimited use ~ suitable for limited use

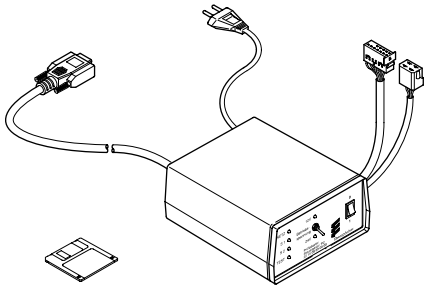
9 I TEST UNITS

Adapter cable VW T4
for diagnostic unit 22 1512 89 00 00 only



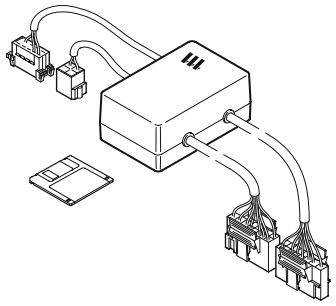
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
①					■			22 1520 89 02 00
②					■			22 1520 89 01 00

Test adapter
with test software for D 2 H control boxes
Supported operating systems: DOS, WIN 3.11 / 95 / 98



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
B / D1 LC, B / D3 LC, B / D3 LP							■	22 1508 89 00 00

Adaptor cable
with test software for test adapter
Supported operating systems: DOS, WIN 3.11 / 95 / 98



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
B / D5 W, D 24 W, D 30 W					■		■	22 1517 89 00 00

■ suitable for unlimited use ~ suitable for limited use

10 | EXHAUST SYSTEM / COMBUSTION SYSTEM PARTS

GENERAL INFORMATION:

The combustion air system is to be fitted so that

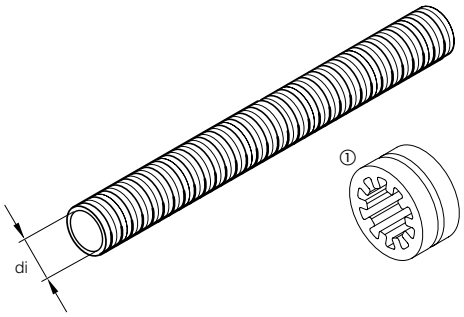
- the connection at the heater fitting is tight.
- the pipe mouth never faces into the head wind.
- as far as possible, no water can splash into the pipe mouth, or otherwise runs out again immediately without penetrating into the heater.
- no exhaust fumes from the heater or vehicle engine can be sucked into the system.
- Please also comply with the safety instructions for this chapter in the heater documentation.

Installing the exhaust system:

- Exhaust pipes should always slope down to the pipe mouth.
- If this is not possible, a hole must be provided for water to drain at the lowest point.
- If this point is not on the outside (e.g. boat machine room), this opening must be connected directly with a so-called overflow vessel.
- Constrictions in the cross-section of the exhaust pipe compared to the exhaust connection at the heater must be avoided at all costs.
- Please refer to the Technical Description and installation instructions for permitted lengths, diameters and bends in the combustion air and exhaust pipes.

10 I COMBUSTION SYSTEM PARTS

Exhaust hose
two-ply, stainless steel (by the meter)

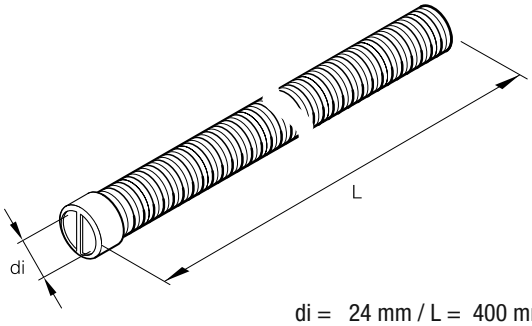


① Spacer ring see page 123

~ = in conjunction with exhaust pipe elbow 25 1226 89 46 00

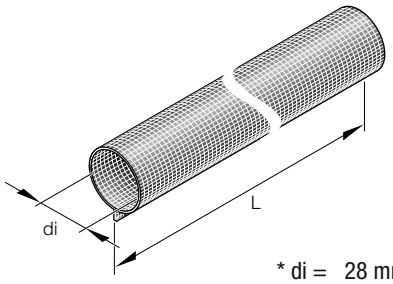
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 24 mm	■	■	■		■			360 61 299
di = 30 mm						■		360 61 300
3000 mm long, di = 40 mm				~				360 61 380
di = 42 mm				■				360 61 381

Exhaust hose with end sleeve
one-ply, stainless steel



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 24 mm / L = 400 mm	■	■	■		■			25 1774 89 10 00
di = 24 mm / L = 500 mm	■	■	■		■			25 1774 89 12 00
di = 24 mm / L = 800 mm	■	■	■		■			25 1774 89 14 00
di = 30 mm / L =1300 mm						■		25 1816 80 08 00

Glass fabric hose
Heat protection



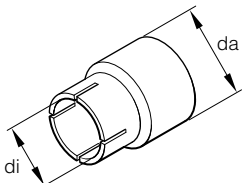
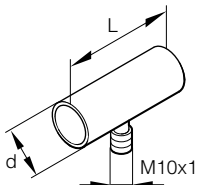
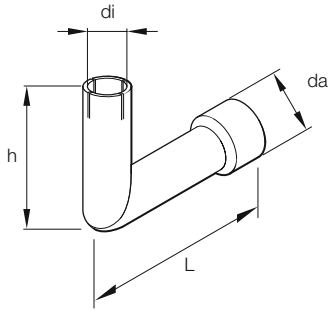
* coated with silicone

~ = check diameter exhaust pipe

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
* di = 28 mm, L = 250 mm	■	■	■		■			360 00 361
* di = 28 mm, L = 120 mm	■	■	■		■			360 00 362
* di = 28 mm, L = 500 mm	■	■	■		■			360 00 363
di = 30 mm, L = 300 mm	■	■	■		■			25 1676 80 00 01
di = 30 mm, L = 150 mm	■	■	■		■			24 0151 00 00 05
di = 30 mm, L = 60 mm	■	■	■		■			25 1973 80 02 01
di = 40 mm, L = 60 mm						■		25 1894 80 04 01
di = 70 mm, L = 1200 mm				■			~	25 1445 05 03 04

■ suitable for unlimited use ~ suitable for limited use

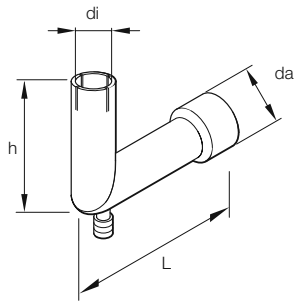
10 | COMBUSTION SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
End sleeve with separator for exhaust pipe									
	ø 24 mm	■	■	■		■			25 1729 80 06 00
End sleeve for exhaust pipe									
	ø 24 mm	■	■	■		■			25 1482 80 00 01
	ø 30 mm						■		25 1785 80 02 00
	ø 42 mm				■				22 1000 40 02 00
Adapter for exhaust hose									
	di = 24 mm, da = 30 mm	■	■	■		■			25 1520 80 01 01
	di = 26 mm, da = 30 mm						■		25 1226 89 00 28
	di = 30 mm, da = 26 mm								25 1226 89 00 29
Adapter with condensation drain									
	d = 24 mm, L = 65 mm	■	■	■		■			22 1050 89 40 00
	d = 30 mm, L = 60 mm						■		25 1226 89 59 00
Exhaust pipe elbow									
	di = 24 mm, da = 30 mm, h = 50 mm / 80 mm	■	■	■		■			25 1226 89 55 00

■ suitable for unlimited use ~ suitable for limited use

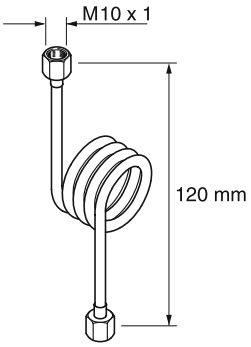
10 I COMBUSTION SYSTEM PARTS

Exhaust pipe elbow with drain M10 x 1



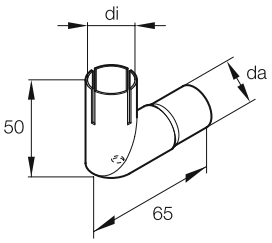
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 24 mm, da = 24 mm, h = 50 mm, L = 110 mm	■	■	■		■			25 1226 89 45 00
di = 24 mm, da = 30 mm, h = 50 mm, L = 80 mm	■	■	■		■			22 1050 89 39 00

Condensation drain



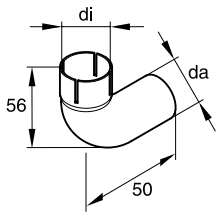
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
~ = only for a part with condensation drain	~	~	~	~	~	~		25 8547 16 02 00

Exhaust pipe elbow



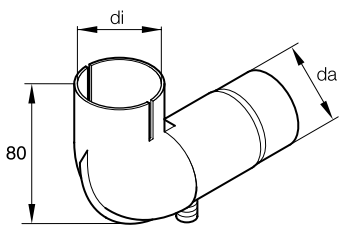
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
with condensation hole, di = 24 mm, da = 24 mm	■	■	■		■			24 0076 07 01 00
with condensation hole, di = 24 mm, da = 24 mm	■	■	■		■			24 0172 01 01 00

Exhaust pipe elbow



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 24 mm, da = 24 mm	■	■	■		■			25 2481 80 02 02

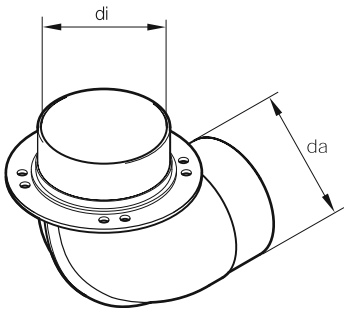
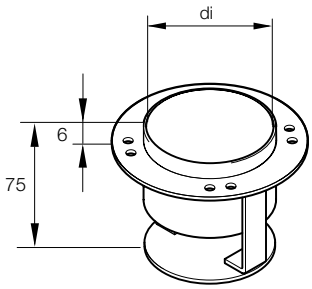
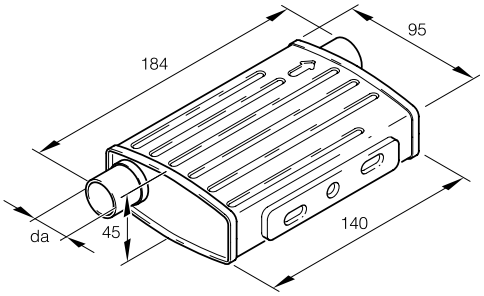
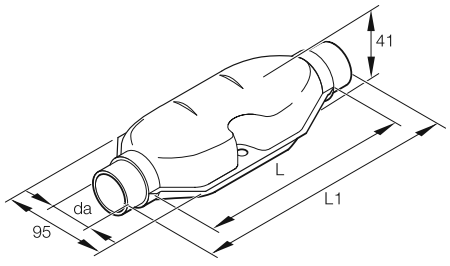
Exhaust pipe elbow with drain M10 x 1



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 42 mm, da = 40 mm				■				25 1226 89 46 00

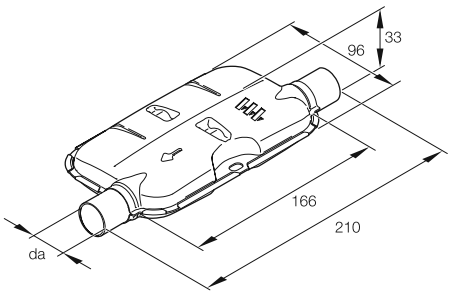
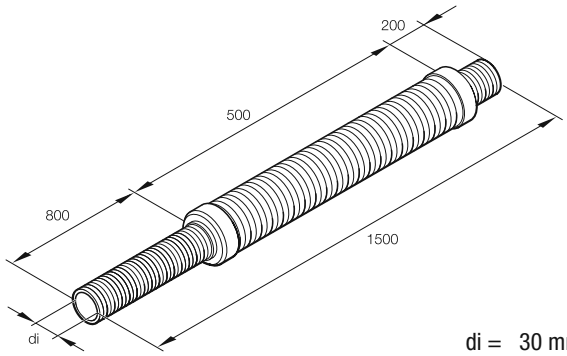
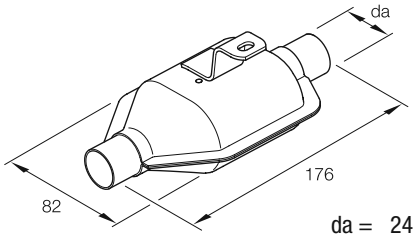
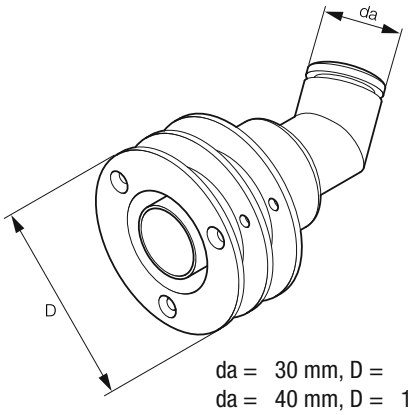
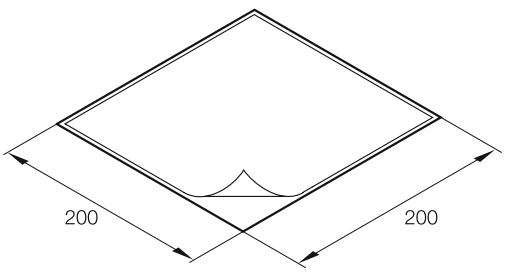
■ suitable for unlimited use ~ suitable for limited use

10 | COMBUSTION SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Exhaust pipe elbow									
	di = 70 mm, da = 72 mm							■	22 1000 40 03 00
Exhaust connection									
	di = 70 mm							■	22 1000 40 04 00
Exhaust silencer									
For installation in boats, the exhaust silencer must not be mounted in interiors.									
Holder for exhaust silencer, see page 126	da = 24 mm	■	■	■		■			22 1000 40 19 00
Exhaust silencer									
For installation in boats, the exhaust silencer must not be mounted in interiors.	da = 30 mm, L = 180 mm, L1 = 224 mm						■		25 1806 80 01 00

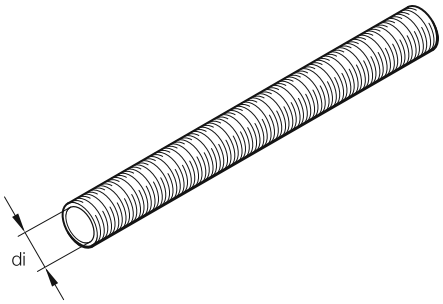
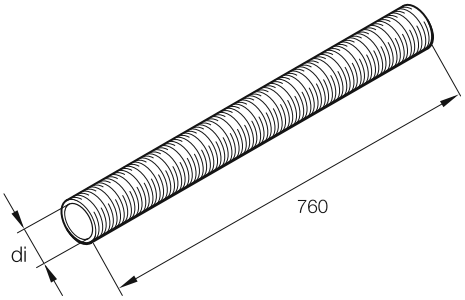
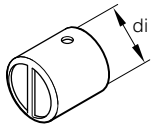
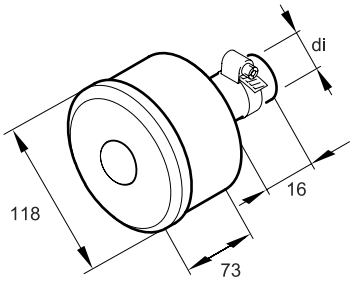
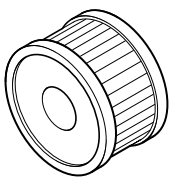
■ suitable for unlimited use ~ suitable for limited use

10 I COMBUSTION SYSTEM PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Exhaust silencer  For installation in boats, the exhaust silencer must not be mounted in interiors.	da = 24 mm	■	■	■		■			22 1000 40 09 00
Exhaust silencer flexible, made of stainless steel for boats  ~ = check connection diameter	di = 30 mm	~	~	~		~	■		25 1226 89 58 00
Catalyst  Only for diesel heaters, not suitable for PME (biodiesel).	da = 24 mm	■	■	■		■			22 1000 40 17 00
Boat wall grommet Stainless steel, polished  ~ = check connection diameter	da = 30 mm, D = 90 mm da = 40 mm, D = 100 mm	~	~	~	■	~	■		22 1050 89 43 00 22 1050 89 44 00
Aluminium foil, self-adhesive Protective foil to prevent heat radiation 		■	■	■	■	■	■	■	871 00 051

■ suitable for unlimited use ~ suitable for limited use

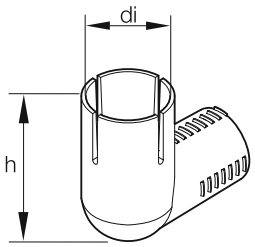
10 | COMBUSTION SYSTEM PARTS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Flexible pipe for combustion air (by the meter)								
								
di = 20 mm					■			360 00 092
di = 25 mm	■	■	■			■		10 2114 21 00 00
Flexible double pipe for combustion air with silencer effect								
								
di = 20 mm					■			360 00 179
End sleeve with separator for combustion air pipe								
								
di = 20 mm					■			25 1688 80 12 01
di = 25 mm	■	■	■					25 1729 89 00 02
Air filter for combustion air								
								
~ = check connection diameter di = 25 mm	~	~	~					330 00 051
Air filter insert for air filter 330 00 051								
								
	~	~	~					237 00 052

■ suitable for unlimited use ~ suitable for limited use

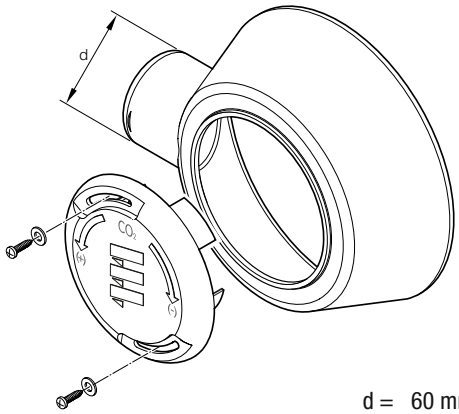
10 I COMBUSTION SYSTEM PARTS

Elbow for combustion air
Plastic



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 20 mm, h = 45 mm					■			22 1000 40 00 02
di = 25 mm, h = 50 mm	■	■	■					22 1000 40 00 01

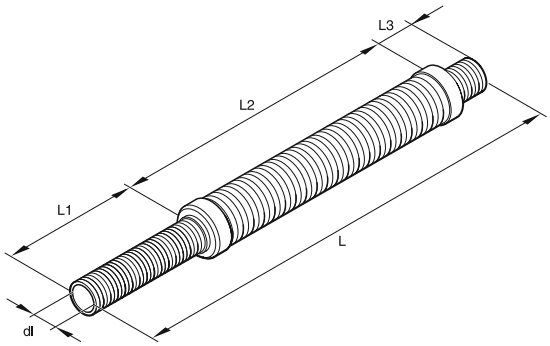
Hood with hose connection



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
d = 60 mm							■	22 1000 40 06 00

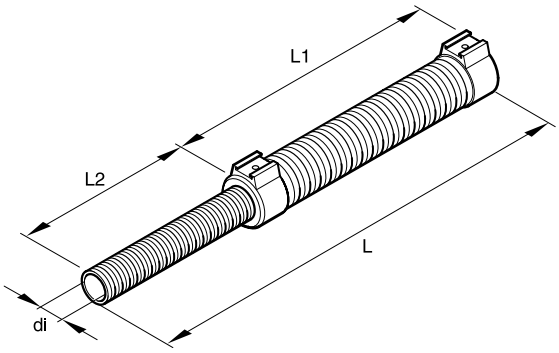
Flexible hose, see page 74

Silencer for combustion air
flexible



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 20 mm, L_1 = 100 mm, L_2 = 160 mm, L_3 = 100 mm, L = 360 mm					■			25 1688 89 03 00
di = 25 mm, L_1 = 135 mm, L_2 = 405 mm, L_3 = 25 mm, L = 565 mm	■	■	■					20 1689 80 05 00
di = 25 mm, L_1 = 100 mm, L_2 = 555 mm, L_3 = 30 mm, L = 685 mm						■		25 1945 80 13 00

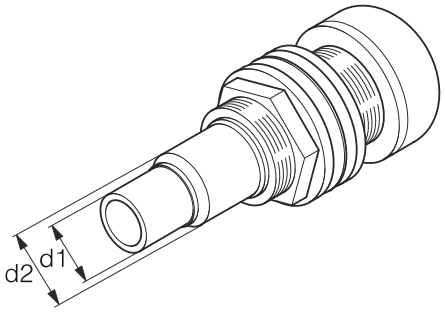
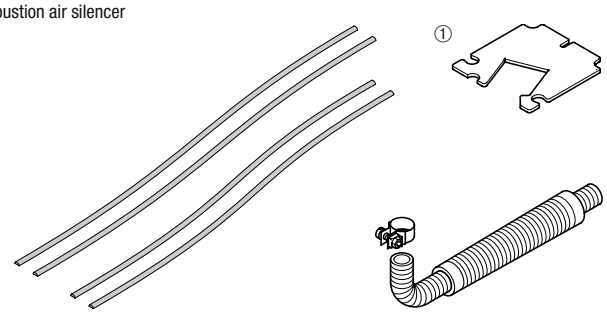
Silencer for combustion air
flexible



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 20 mm, L_1 = 130 mm, L_2 = 160 mm, L = 290 mm					■			25 2424 05 00 08

■ suitable for unlimited use ~ suitable for limited use

10 | COMBUSTION SYSTEM PARTS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Boat wall grommet for combustion air max. boat wall thickness 20mm								
 d_1 = 25 mm, d_2 = 30 mm	■	■	■		■	■		22 1050 89 35 00
Soundproofing package consisting of sealing tape, lining and combustion air silencer								
 ① For Hydronic SC units only					■			24 0220 00 00 00

■ suitable for unlimited use ~ suitable for limited use

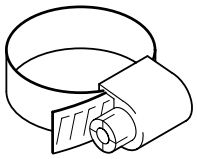
11 I FASTENING PARTS

GENERAL INFORMATION:

- The available fastening parts are rated for all normal installation conditions.
- For installation in cars and buses, normally the heater or unit holder can be rigidly connected directly with the corresponding body part.
- By contrast, anti-vibration metal rubber buffers have to be fitted in trucks and especially in construction machinery. However, these metal rubber buffers must not be exposed to tensile and shearing strain.
- Such metal rubber elements also reduce noise transmission (structure-borne sound), so that they are also used when fitting both the heater and the metering pump to house boats.
- Please also comply with the safety instructions for this chapter in the heater documentation.

11 | FASTENING PARTS

Hose clip



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 16 – ø 25 mm					■			10 2067 01 60 25
ø 20 – ø 32 mm	■	■	■		■	■		10 2067 02 00 32
ø 32 – ø 50 mm				■			■	10 2067 03 20 50
ø 40 – ø 47 mm				~				152 00 158
ø 50 – ø 70 mm	■							10 2067 05 00 70
ø 70 – ø 90 mm	■	~	~					10 2067 07 00 90
ø 90 – ø 110 mm		■	■	■				10 2067 09 01 10

~ = check connection diameter

Hose clamp

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 9 – ø 10.5 mm	■	■	■	■	■	■		152 61 104
ø 21 – ø 24.0 mm					■	~		152 61 115

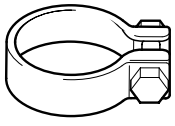
~ = check connection diameter

Hose clip

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 7 mm	~	~	~	~	~	~		10 2068 00 70 78
ø 9 mm	■	■	■	■	■	■		10 2068 00 90 98
ø 10 mm	■	■	■	■	■	■		10 2068 01 00 98
ø 11 mm	■	■	■	■	■	■		10 2068 01 10 98
ø 12 mm	■	■	■	■	■	■		10 2068 01 20 98
ø 14 mm	~	~	~	~	~	~	~	10 2068 01 40 98

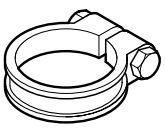
~ = check connection diameter

Pipe clip for exhaust pipe



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 26 – ø 28 mm	■	■	■		■			22 1000 50 05 00

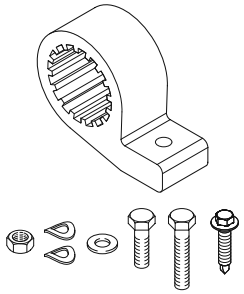
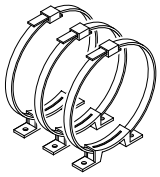
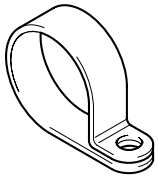
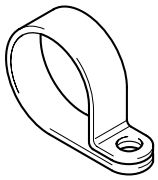
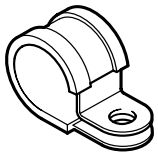
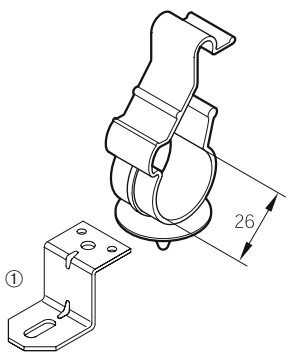
Pipe clip for exhaust pipe



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
ø 27 – ø 30 mm						■		152 09 002
ø 30 – ø 33 mm						■		152 09 003
ø 42 – ø 45 mm				■				152 09 004
ø 43 – ø 46 mm				■				152 09 005

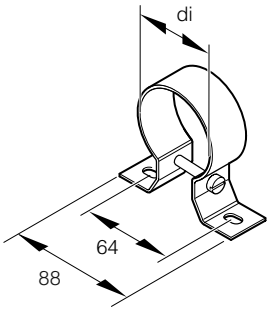
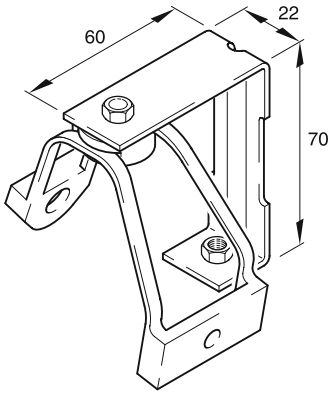
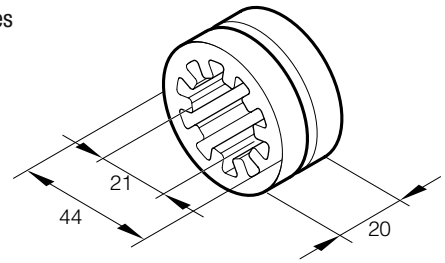
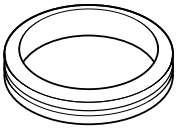
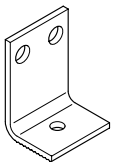
■ suitable for unlimited use ~ suitable for limited use

11 I FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Holder for metering pump and water pump Flowtronic 800 S (page 66) Rubber									
Fuel, ø 34 mm		■	■	■		■			22 1000 50 03 00
Water, ø 41 mm					■	■	■		22 1000 50 07 00
Air hose fixing kit Plastic (3 pcs)									
ø 60 – ø 100 mm		■	■	■	■			■	22 1000 50 02 00
Clip galvanised									
ø 28 mm		■	■	■		■	■		152 09 010
ø 41 mm					■				152 10 039
ø 50 mm					~				152 09 011
ø 65 mm					~				152 09 012
Clip Stainless steel									
ø 25 mm		■	■	■		■	■		152 10 048
ø 28 mm		■	■	■		■	■		152 61 001
ø 32 mm		~	~	~		~			152 10 069
Pipe clip with rubber inlay									
ø 10 mm		■	■	■	■	■	■		152 00 139
ø 41 mm		~	~	~	~	~	~		152 00 131
Fastening clip for water hoses, ø 15 mm – ø 20 mm									
① Holder page 126						■	■		156 31 011

■ suitable for unlimited use ~ suitable for limited use

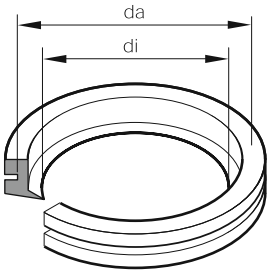
11 | FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Holder clip with console for water pump Flowtronic 1200 S (see page 66)									
di = 50 mm					■		■		22 1000 10 05 00
Holder for metering pump for use on boats and in camping vehicles									
		■	■	■		■			20 1634 80 06 00
Spacer rubber profile for exhaust pipe and water hoses Silicone rubber, temperature-resistant									
		■	■	■		■	■		22 1000 50 10 02
Sealing ring for exhaust pipe									
di = 41 mm					■				20 8542 11 00 02
Holder for water pump for water pump 25 2217 27 00 00 (see page 66)									
						■			25 2217 27 01 00

■ suitable for unlimited use ~ suitable for limited use

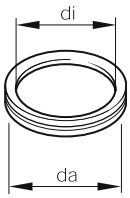
11 I FASTENING PARTS

Sealing ring for hot air system



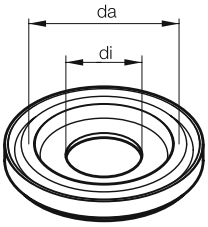
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 72 – 85 mm, da = 100 mm	■	■	■					20 1280 04 00 01
di = 95 – 105 mm, da = 115 mm	■	■	■	■				25 1226 89 00 07

Rubber grommet



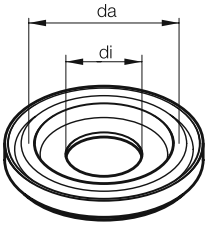
	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 4 – 10 mm, da = 16,5 mm	■	■	■	■	■	■	■	20 1280 09 01 03

Grommet for combustion air pipe



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 25 – 30 mm, da = 41 mm	■	■	■		■	■		20 1282 20 00 01

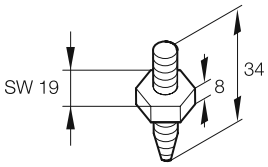
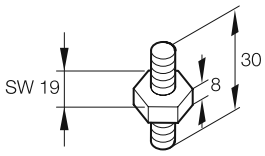
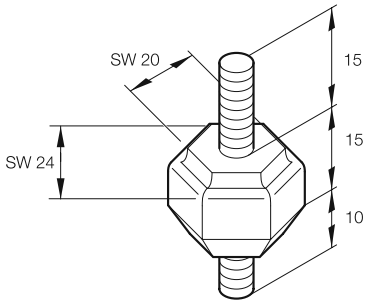
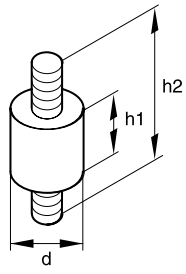
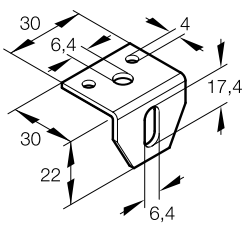
Grommet for exhaust pipe



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
di = 23 – 30 mm, da = 41 mm	■	■	■		■	■		20 1549 65 00 02
di = 38 – 45 mm, da = 60 mm				■				20 1282 20 00 02

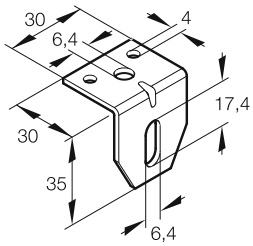
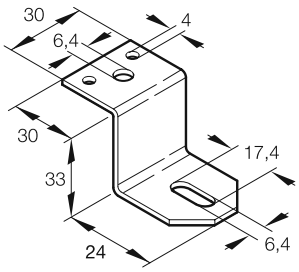
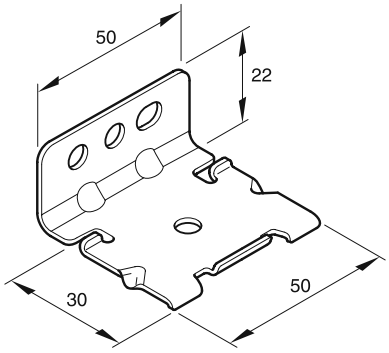
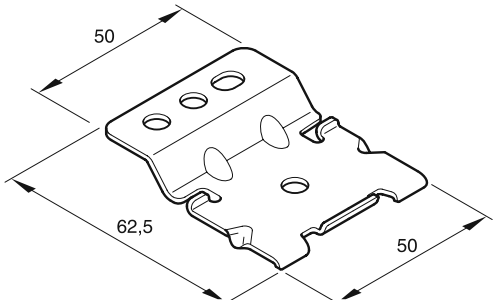
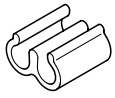
■ suitable for unlimited use ~ suitable for limited use

11 | FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Metal rubber buffer									
	Thread M6 / ST 6.3 C x 15	■	■	■	■	■	■	■	20 1673 80 01 01
Metal rubber buffer									
	Thread 2 x M6 x 11 mm	■	■	■	■	■	■	■	20 1185 00 00 01
Metal rubber buffer with additional metal reinforcement									
	Thread M6 x 10 mm / M6 x 15 mm	■	■	■	■	■	■	■	22 1000 50 00 08
Metal rubber buffer									
	Thread 2 x M6 x 10, d = 20 mm, h_1 = 15 mm, h_2 = 35 mm	■	■	■	■	■	■	■	20 1607 65 00 02
	Thread 2 x M6 x 10, d = 20 mm, h_1 = 25 mm, h_2 = 45 mm	■	■	■	■	■	■	■	20 1609 05 00 04
	Thread 2 x M8 x 13, d = 30 mm, h_1 = 15 mm, h_2 = 41 mm	■	■	■	■	■	■	■	330 09 002
Holder									
		■	■	■	■	■	■	■	20 1348 03 00 02

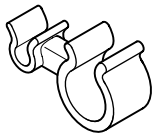
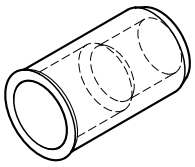
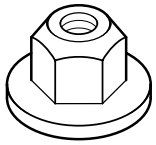
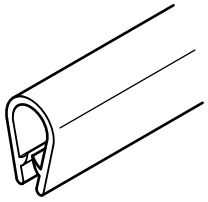
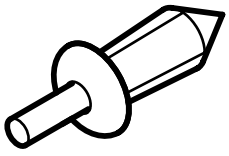
■ suitable for unlimited use ~ suitable for limited use

11 I FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Holder		■	■	■	■	■	■	■	20 1348 03 00 04
Holder		■	■	■	■	■	■	■	20 1533 88 00 07
L-holder for exhaust silencer 22 1000 40 19 00 Exhaust silencer see page 115		■	■	■		■			22 1000 51 34 00
Z-holder for exhaust silencer 22 1000 40 19 00 Exhaust silencer see page 115		■	■	■		■			22 1000 51 35 00
Double pipe clip for pipe or hose 2x ø 4.75		■	■	■	■	■	■	■	156 31 020

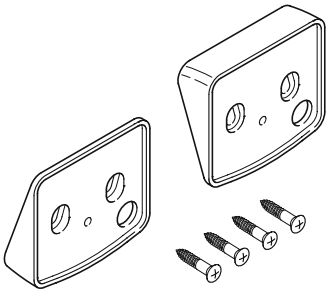
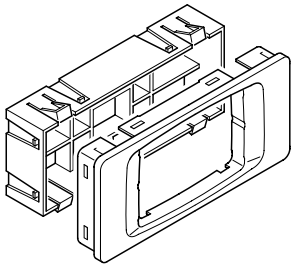
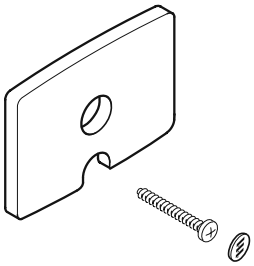
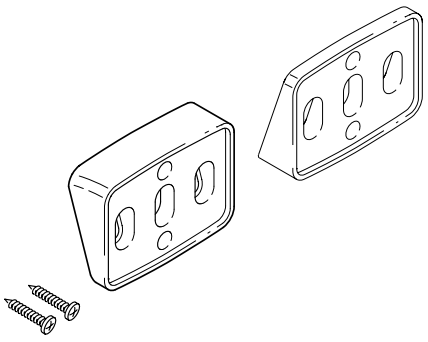
■ suitable for unlimited use ~ suitable for limited use

11 | FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Hose holder, rotatable for pipe or hose ø 4 – 4.5 mm, ø 11 – 13 mm		■	■	■	■	■	■	■	156 31 023
Pull-in nut									
M6		■	■	■	■	■	■	■	119 02 002
M8		■	■	■	■	■	■	■	119 10 038
Plastic nut for large thread bolt ø 5 mm		■	■	■	■	■	■	■	110 31 001
Edge protection, by the meter for plate thickness 1.5 mm		■	■	■	■	■	■	■	394 00 055
Expanding rivet Plastic									
ø 4 mm		~	~	~	~	~	~	~	131 31 053
ø 5 mm		~	~	~	~	~	~	~	131 31 054

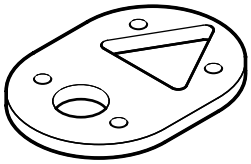
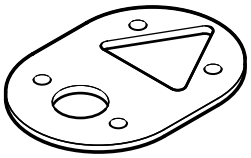
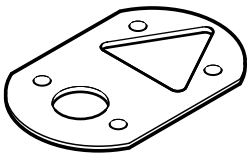
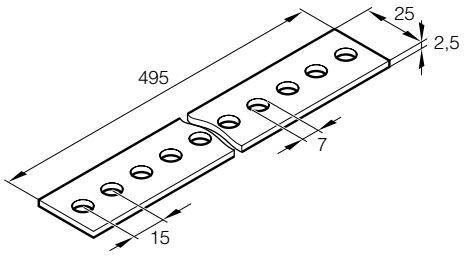
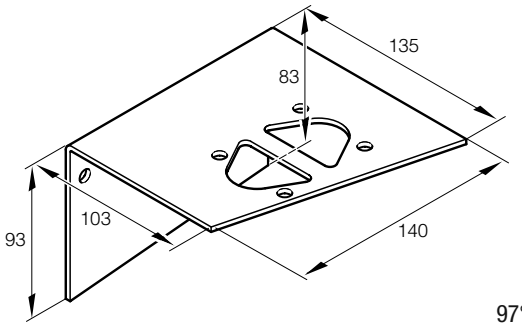
■ suitable for unlimited use ~ suitable for limited use

11 I FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Consoles for mini timer / mini controller Airtronic									
2 pcs		■	■	■	■	■	■	■	22 1000 50 08 00
Mounting frame for EasyStart T									
for replacing the module timer with EasyStart T		~	~	~	~	■	■	■	22 1000 51 33 00
EasyStart T – single part Fastening parts									
		■	■	■	■	■	■	■	22 1000 32 93 00
EasyStart T – single part Console for suitable, flat or curved mounting surfaces									
		■	■	■	■	■	■	■	22 1000 51 32 00

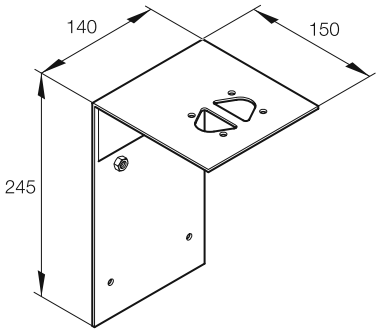
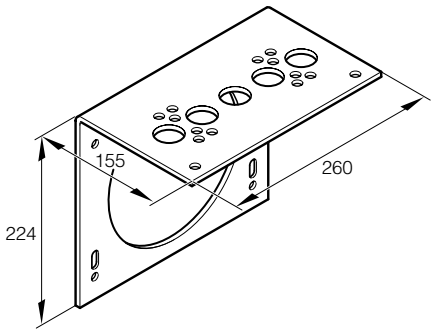
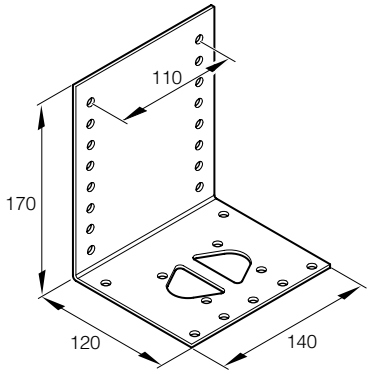
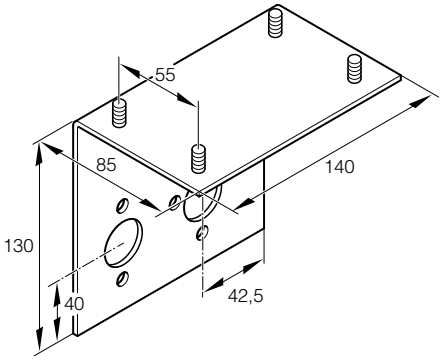
■ suitable for unlimited use ~ suitable for limited use

11 | FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Spacer Rubber									
6 mm thick		■	■						25 1482 89 00 02
Flange seal Silicone									
3 mm thick		■	■						20 1577 89 00 02
Reinforcement plate									
2 mm thick		■	■						20 1577 89 00 03
Perforated plate									
		■	■	■	■	■	■	■	20 1819 80 05 01
Unit holder									
97°		■	■						20 1575 89 00 10
Stainless steel, 105°		■	■						22 1050 89 08 00

■ suitable for unlimited use ~ suitable for limited use

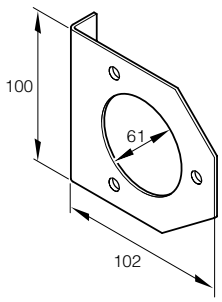
11 I FASTENING PARTS

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Unit holder 	■	■						25 1482 89 01 00
Unit holder 			■					24 0076 00 00 01
Holding bracket for heater 	■	■						25 1482 89 00 11
Unit holder 	■	■						20 1575 89 04 00

■ suitable for unlimited use ~ suitable for limited use

11 | FASTENING PARTS

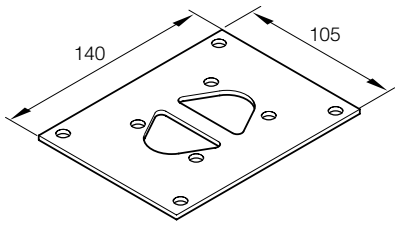
Holder
for outflow item 10, page 75



~ = check connection diameter

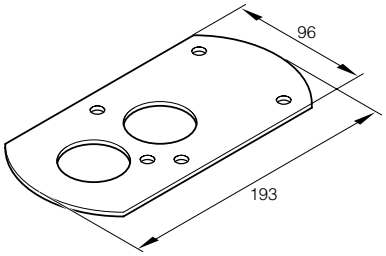
Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
~	~						25 1688 89 00 09

Fastening plate



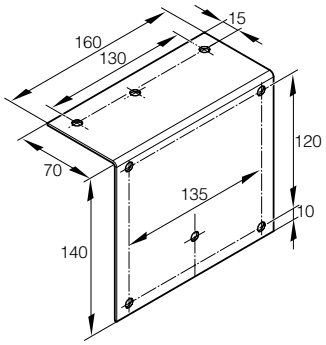
Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
■	■						25 1482 89 00 13

Reinforcement plate



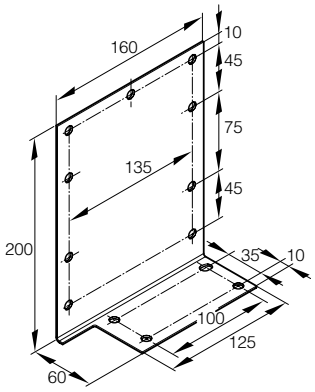
Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
		■					25 1729 89 00 03

Holder



Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
				■			22 1000 50 00 02

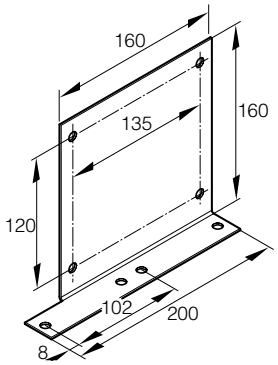
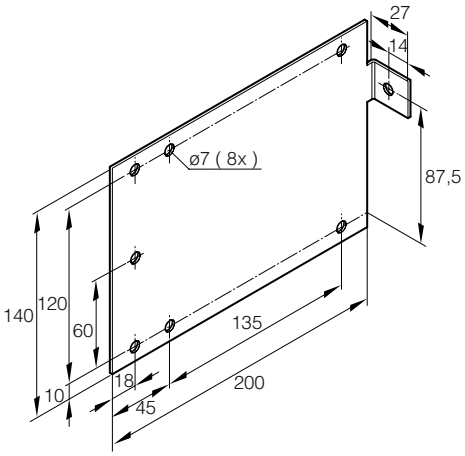
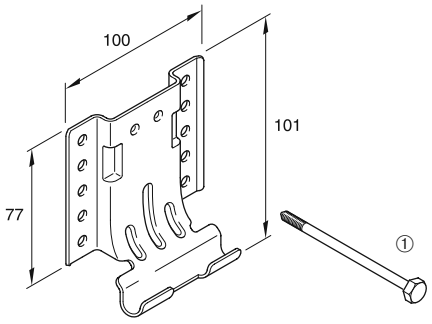
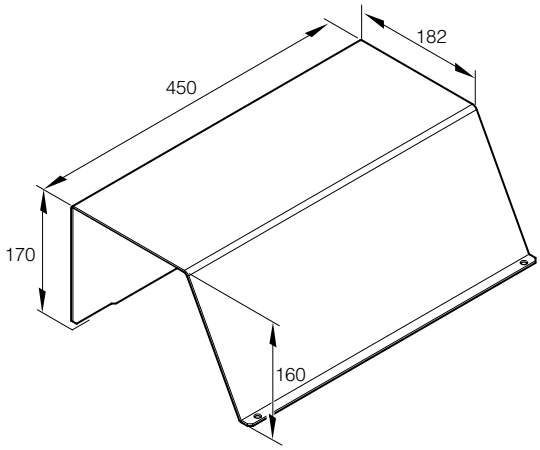
Holder



Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
				■			22 1000 50 00 03

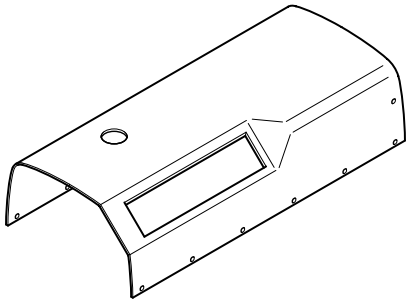
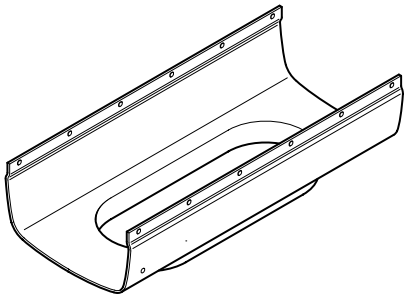
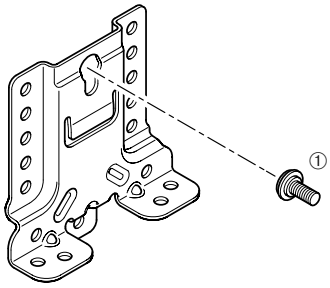
■ suitable for unlimited use ~ suitable for limited use

11 I FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Holder						■			22 1000 50 00 04
Holder						■			22 1000 50 00 06
Holder for Hydronic ① Also required: Fastening screw M6x95, order no. 100 10 259						■			22 1000 51 36 00
Cover plate for heater ~ = check heater dimensions		~	~						25 1482 89 00 09

■ suitable for unlimited use ~ suitable for limited use

11 | FASTENING PARTS

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Jacket shell, top, for air heater D5LC Stainless steel, for boat installation									70 1729 01 00 02
Jacket shell, bottom for air heater D5LC Stainless steel, for boat installation									70 1729 01 00 01
Holder for Hydronic 2 Economy/Commercial ① Also required: Special screw, order no. 25 2506 80 01 01									22 1000 51 37 00

suitable for unlimited use ~ suitable for limited use

12 I NAMEPLATES / SIGNS

GENERAL INFORMATION:

Nameplates

The nameplate must be clearly visible even in fitted state. If necessary, a 2nd nameplate (duplicate) stating the details of the original can be fitted in a position that is clearly visible after installation, on the heater or on a cover located in front of the heater. A 2nd nameplate is not necessary if the original can be made visible by removing the cover without needing tools.

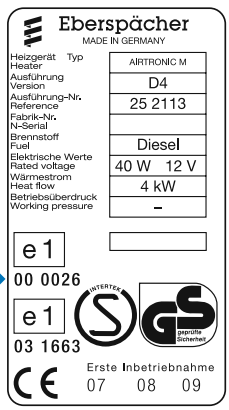
A 2nd nameplate (duplicate) is subject to charge and is made available on request. Please complete the fax coupon shown here and send it to the stated fax number.

A charge of 15 Euro is made for the 2nd nameplate (duplicate)

Please note!

Nameplates for heaters with an ABG (general type certification) are identified by the test mark with the wavy line (∿∿∿).

Nameplates for heaters with EC type certification are identified by the official mark e 1 for EC and EMC type certification.



12 | NAMEPLATES / SIGNS

ORDER FORM
2ND NAMEPLATE (DUPLICATE)

Copy this fax coupon, enter the values of the original nameplate and send it to number:

0711 939-1130

(only valid for Germany)

Company _____

Contact partner _____

Street, number _____

Post code, city _____

Phone _____

Fax _____

E-mail _____

Sender (please use capital letters)

Heater type _____

Version _____

Version number _____

Factory number _____

Test mark ~~~ _____

or

EC type-approval **e1** _____

and

EMC type approval **e1** _____

Fuel _____

Electrical values _____

Heat flow _____

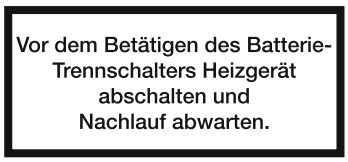
Operating overpressure _____

12 I NAMEPLATES / SIGNS

Information sticker

Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
■	■	■	■	■	■	■	20 1598 00 00 01

Information sticker



Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
■	■	■	■	■	■	■	25 1482 89 00 08

■ suitable for unlimited use ~ suitable for limited use

13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

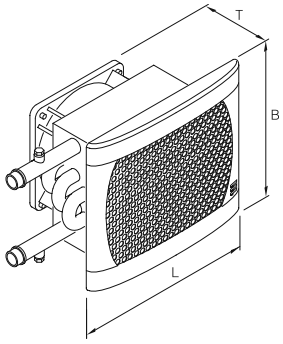
GENERAL INFORMATION ON THIRD-PARTY PRODUCTS:

Third party products are not included in Eberspächer's range of products. If necessary, these products have to be ordered through the stated supply source.

Heat exchanger and fan heat exchanger with output from 2,000 – 10,000 W.

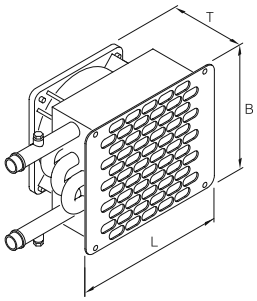
Supply source:
Eberspächer S. A. S.
Z.A.C. la Clé Saint Pierre
3 rue Blaise Pascal
F - 78996 Elancourt Cedex
Phone + 33 1 30 68 54 54
Fax + 33 1 30 68 54 55
E-Mail: info.esas@eberspaecher.com

HELIOS 2000
incl. ON/OFF switch, air flow/h 125 m³, 2 kW



		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic	Hydronic M / Hydronic M-II	Hydronic L / Hydronic L-II	Order No.
Aluminium grille L = 172, W = 129, D = 107	12 V					~	~	~	282 104 100E
	24 V					~	~	~	282 104 200B
Plastic grille, grey L = 200, W = 170, D = 105	12 V					~	~	~	282 104 120
	24 V					~	~	~	282 104 220
Plastic grille, white L = 200, W = 170, D = 105	12 V					~	~	~	282 104 121
	24 V					~	~	~	282 104 221
Plastic grille, black L = 200, W = 170, D = 105	12 V					~	~	~	282 104 122
	24 V					~	~	~	282 104 222
Stainless steel grille L = 200, W = 170, D = 105	12 V					~	~	~	282 104 109
	24 V					~	~	~	282 104 209

HELIOS 2000
noiseless, incl. ON/OFF switch, air flow/h 125 m³, 2 kW

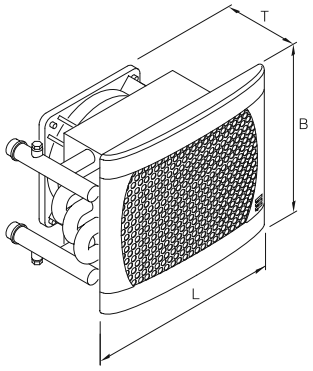


		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic	Hydronic M / Hydronic M-II	Hydronic L / Hydronic L-II	Order No.
Aluminium grille L = 172, W = 129, D = 107	12 V					~	~	~	282 104 126
	24 V					~	~	~	282 104 226

■ suitable for unlimited use ~ suitable for limited use

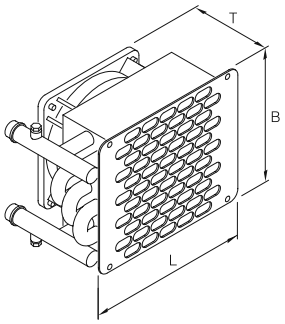
13 I THIRD-PARTY PRODUCTS HEAT EXCHANGERS

HELIOS 2000 PREMIUM
incl. ON/OFF switch, air flow/h 125 m³, 2 kW



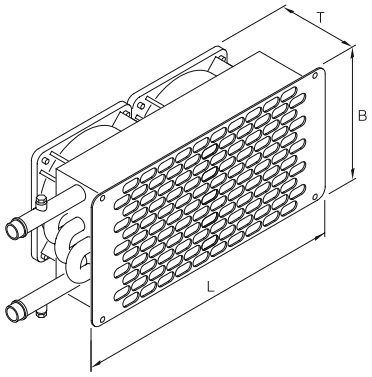
		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Grille, black L = 172, W = 129, D = 103.5	12 V					~	~	~	282 104 113
	24 V								282 104 216
Grille, white L = 172, W = 129, D = 103.5	12 V					~	~	~	282 104 112
	24 V					~	~	~	282 104 215
Grille, grey L = 172, W = 129, D = 103.5	12 V					~	~	~	282 104 111
	24 V					~	~	~	282 104 211

HELIOS 2000 PREMIUM
incl. ON/OFF switch, air flow/h 125 m³, 2 kW



		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Aluminium grille L = 172, W = 129, D = 103.5	12 V					~	~	~	282 104 114
	24 V					~	~	~	282 104 217

HELIOS 4000
incl. ON/OFF switch, air flow/h: 250 m³, 4 kW

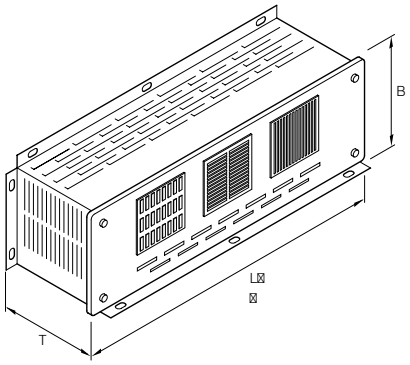


		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Aluminium grille L = 320, W = 129, D = 104 mm	12 V					~	~	~	282 105 100
	24 V					~	~	~	282 105 200

■ suitable for unlimited use ~ suitable for limited use

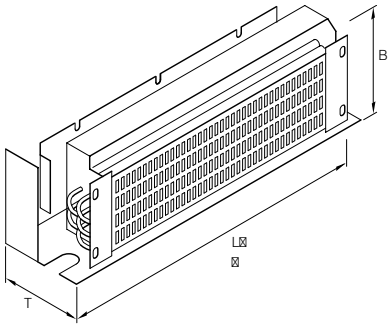
13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

HELIOS 7000
with housing and ON/OFF switch, air flow/h 500 m³, 4 kW



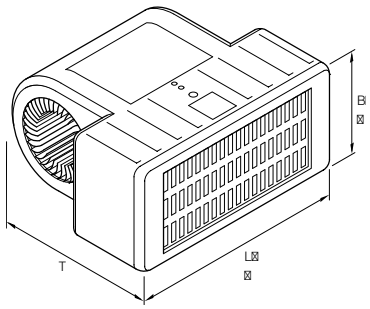
		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
L = 580, W = 129, D = 140 mm	12 V						~	~	282 106 100
	24 V						~	~	282 106 200

HELIOS 7000
without housing, with ON/OFF switch, air flow/h 500 m³, 4 kW



		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
L = 580, W = 129, D = 124 mm	12 V						~	~	282 106 103
	24 V						~	~	282 106 203

XEROS 4200
Air flow/h 200 m³, 4 kW

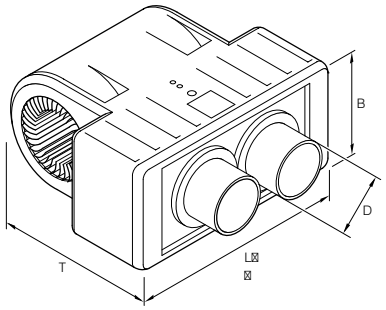


		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Standard L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 100
	24 V					~	~	~	282 110 200
Plastic grille L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 110
	24 V					~	~	~	282 110 210
Plastic grille at front and side L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 111
	24 V					~	~	~	282 110 211
Marine, stainless steel plate L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 131
	24 V					~	~	~	282 110 231
ø 14, L = 258, W = 115, D = 200 mm	12 V					~	~	~	282 110 102

■ suitable for unlimited use ~ suitable for limited use

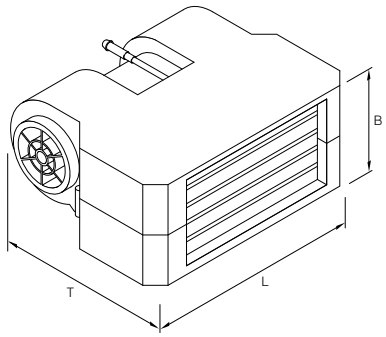
13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

XEROS 4200
with socket piece, air flow/h: 200 m³, 4 kW



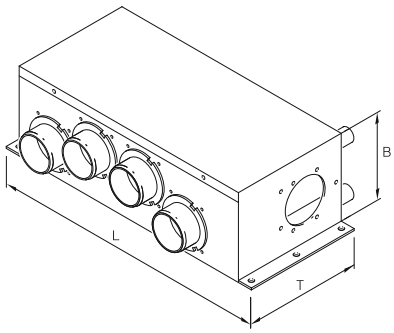
		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
with 2 socket pieces, ø 45 L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 166
	24 V					~	~	~	282 110 266
with 2 socket pieces, ø 50 L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 161
	24 V					~	~	~	282 110 261
with 2 socket pieces, ø 60 L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 163
	24 V					~	~	~	282 110 263
with 2 socket pieces, ø 75 L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 165
	24 V					~	~	~	282 110 265
with rotatable and lockable outflows L = 273, W = 114, D = 207 mm	12 V					~	~	~	282 110 153

ZENITH 8000
Air flow/h: 440 m³, 8 kW



		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Standard L = 315, W = 130, D = 242 mm	12 V					~	~	~	282 112 100
	24 V					~	~	~	282 112 200
with plastic grilles L = 315, W = 130, D = 242 mm	12 V					~	~	~	282 112 103
	24 V					~	~	~	282 112 203
with 3 socket pieces ø 60 L = 315, W = 130, D = 242 mm	12 V					~	~	~	282 112 101
	24 V					~	~	~	282 112 201
with 3 socket pieces ø 75 L = 315, W = 130, D = 242 mm	12 V					~	~	~	282 112 102
	24 V					~	~	~	282 112 202
with 4 socket pieces ø 60 L = 315, W = 130, D = 242 mm	12 V					~	~	~	282 112 104
	24 V					~	~	~	282 112 204

ARTIK 10 000
Air flow/h: 440 m³, 10 kW

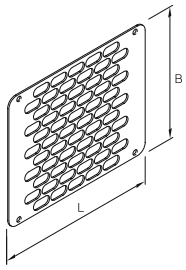
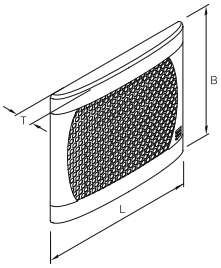
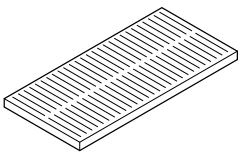
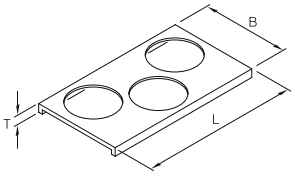


		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Marine, stainless steel defroster L = 442, W = 132, D = 225	12 V					~	~	~	282 113 100C
	24 V					~	~	~	282 113 200C

■ suitable for unlimited use ~ suitable for limited use

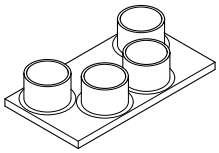
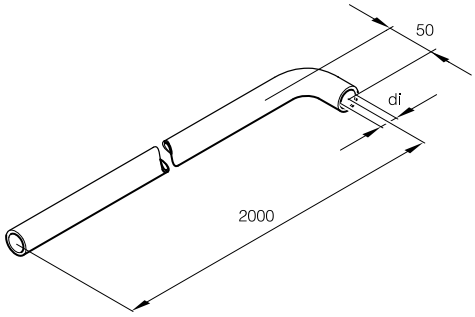
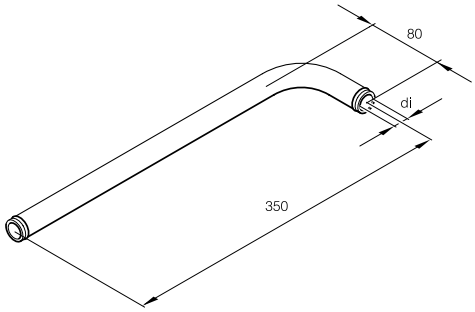
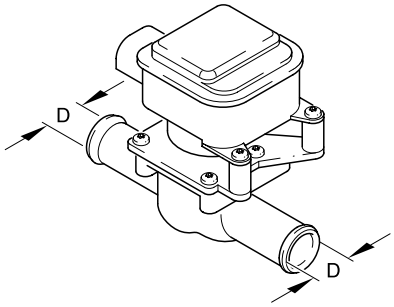
13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

Accessories

		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Grille for heater, HELIOS 2000									
Aluminium L = 170, W = 140						~	~	~	134 086 000C
Stainless steel L = 170, W = 140						~	~	~	134 099 000B
Grille for heater, HELIOS 2000									
Plastic, black L = 200, W = 170, D = 22						~	~	~	134 101 001
Plastic, white L = 200, W = 170, D = 22						~	~	~	134 101 002
Plastic, grey L = 200, W = 170, D = 22						~	~	~	134 101 000
Grille, plastic, for heat exchanger ZENITH 8000									
						~	~	~	145 735 000A
Air distributor with 3 socket pieces, plastic, for heat exchanger ZENITH 8000									
ø 60 mm L = 231, W = 131, D = 6						~	~	~	145 734 000A

■ suitable for unlimited use ~ suitable for limited use

13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

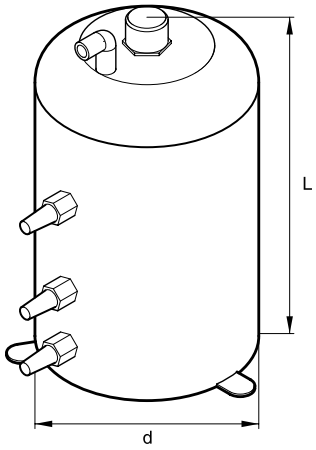
		Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Air distributor with 4 socket pieces, plastic, for heat exchanger ZENITH 8000									
	ø 60 mm					~	~	~	145 737 000A
Socket piece for air distributor									
	ø 50 mm					~	~	~	65707
	ø 60 mm					~	~	~	65887
	ø 75 mm					~	~	~	65727
Water hose									
	di = 18 mm					~	~	~	330 042 000
Pipe, aluminium									
	di = 18 mm					~	~	~	175 000 091
2-way engine control valve									
	D = 22 mm					~	~	~	118 026 000

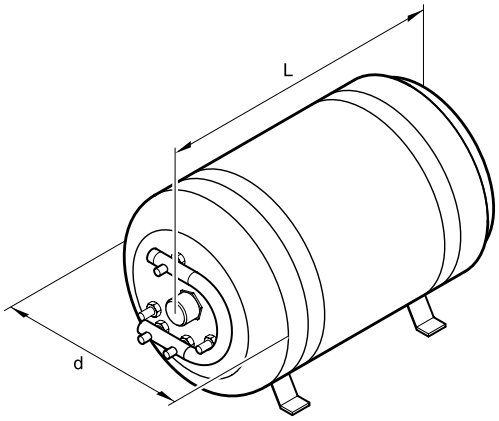
■ suitable for unlimited use ~ suitable for limited use

13 | THIRD-PARTY PRODUCTS HEAT EXCHANGERS

Hot water boiler

Supply source:
Eberspächer UK Ltd.
Headlands Business Park
Salisbury Road, Ringwood
GB – Hampshire BH 243 PB
Phone +44 14 25 48 01 51
Fax +44 14 25 48 01 52





	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
10 l, upright, with one coil L = 390 mm, d = 250 mm					~	~	~	17700
10 l, horizontal, with one coil L = 550 mm, d = 250 mm					~	~	~	17722
22 l, horizontal, with one coil* L = 510 mm, d = 370 mm					~	~	~	17794
22 l, horizontal, with two coils* L = 510 mm, d = 370 mm					~	~	~	17795
30 l, horizontal, with one coil* L = 610 mm, d = 370 mm					~	~	~	17796
30 l, horizontal, with two coils* L = 610 mm, d = 370 mm					~	~	~	17797
40 l, horizontal, with one coil* L = 750 mm, d = 370 mm					~	~	~	17798
40 l, horizontal, with two coils* L = 750 mm, d = 370 mm					~	~	~	17799
55 l, horizontal, with one coil* L = 970 mm, d = 370 mm					~	~	~	17800
55 l, horizontal, with two coils* L = 970 mm, d = 370 mm					~	~	~	17801
75 l, horizontal, with one coil* L = 1130 mm, d = 400 mm					~	~	~	17802
75 l, horizontal, with two coils* L = 1130 mm, d = 400 mm					~	~	~	17803

All hot water boilers have an integrated 220 V – 240 V AC heating coil.

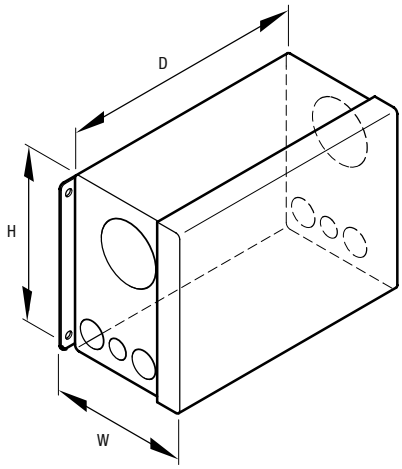
* Thermostat mixing valve

suitable for unlimited use ~ suitable for limited use

13 I THIRD-PARTY PRODUCTS INDIVIDUAL UNITS

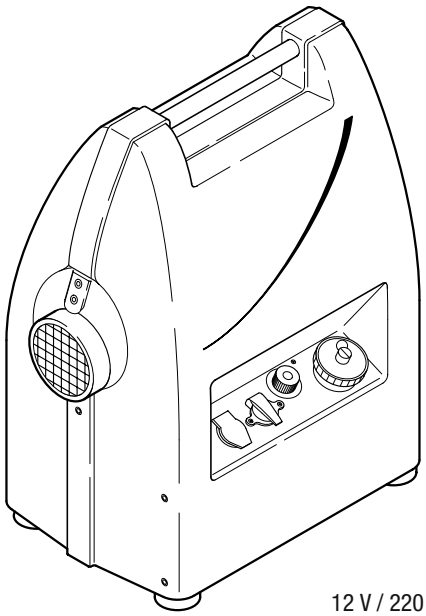
Stainless steel box for Airtronic D2 / D4

Supply source:
Kjöller Eberspächer Marine
Rovsingsgade 82
DK – 2000 Kobenhavn N
Phone + 45 35 82 95 00
Fax 45 35 82 50 95



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
W = 147 mm, H = 212 mm, D = 295 mm	■							on request
W = 172 mm, H = 240 mm, D = 360 mm		■						from manufacturer

Polarn 4000
Complete unit with Airtronic D4

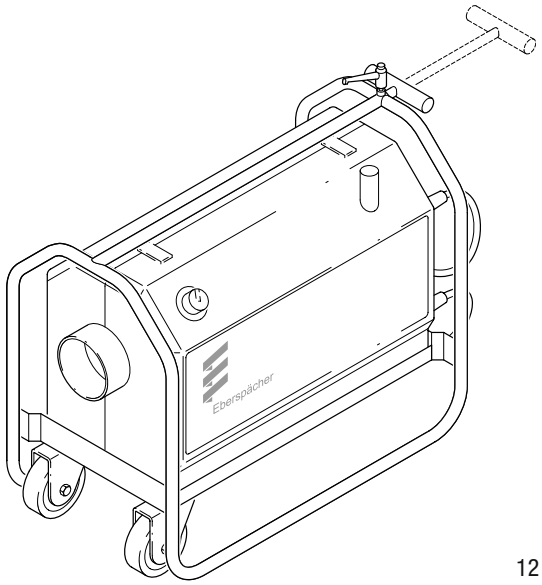


	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
12 V / 220 V								24 9988 00 00 21
12 V								24 9988 00 00 10
24 V								24 9988 00 00 22

■ suitable for unlimited use ~ suitable for limited use

13 | THIRD-PARTY PRODUCTS INDIVIDUAL UNITS

POLARN 8000
Complete unit with air heater 8 L



	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
12 V								24 9988 00 00 32
24 V								24 9988 00 00 33

■ suitable for unlimited use ~ suitable for limited use

13 I THIRD-PARTY PRODUCTS INDIVIDUAL UNITS

Marine Kit – air heater

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Airtronic D2 – 12 V Marine Kit	■							24 8997 00 00 00
Airtronic D4 – 12 V Marine Kit		■						24 8998 00 00 00
Airtronic D5 – 12 V Marine Kit			■					24 8999 00 00 00

Scope of supply:

- Control unit (mini controller)
- Holder for heater
- Cable harness
- Combustion air intake silencer
- Exhaust pipe elbow
- Exhaust silencer
- Boat wall grommet
- Tank extractor
- Fuel pipes
- Fuel hoses
- Temperature sensor
- Various holders
- Installation accessories

To be ordered separately:
All air system parts according to the planned hot air system

Optional:
EasyStart T timer (see page 93)

■ suitable for unlimited use ~ suitable for limited use

13 | THIRD-PARTY PRODUCTS INDIVIDUAL UNITS

Marine Kit – water heater

	Airtronic	Airtronic M	Airtronic L	Air heater 8 L / V 7 S	Hydronic / Hydronic 2 / Hydronic 2 C	Hydronic M	Hydronic L	Order No.
Hydronic D 5 WS – 12 V Marine Kit					■			24 8992 00 00 00
Hydronic D 5 WS – 24 V Marine Kit					■			24 8991 00 00 00
Hydronic M / M-II – 12 / 24 V Marine Kit						■		24 8993 00 00 00

Scope of supply:

- Holder for heater
- Cable harness
- Combustion air intake silencer
- Exhaust silencer
- Boat wall grommet
- Tank extractor
- Fuel pipes
- Fuel hose
- Fastening parts
- Electric parts
- Water hoses
- Connecting parts
- Installation accessories

To be ordered separately:
EasyStart T timer (see page 93)

■ suitable for unlimited use ~ suitable for limited use

FIND OUT ALL YOU NEED TO KNOW FROM OUR 5,000 SERVICE PARTNERS WORLDWIDE.

GERMANY

Eberspächer Heizung
Vertriebs-GmbH & Co. KG
Wilhelmstraße 47
17358 Torgelow
Hotline: 0800 262626
Fax hotline: 01805 262624
vk-heiz@eberspaecher.com
www.eberspaecher-klima.de

AUSTRIA

Eberspächer GmbH
IZ NÖ-Süd2
Hondastraße 2, Obj. M47
2351 Wiener Neudorf
Phone: 02236 677144-0
Fax: 02236 677144-42
office-at@eberspaecher.com
www.eberspaecher.at

SWITZERLAND

Technomag AG
Commercial Product Department
Fischermättelistrasse 6
3000 Bern
Phone: 031 3798171
Fax: 031 3798343
standheizungen@technomag.ch
www.eberspaecher.ch

J. Eberspächer GmbH & Co. KG
Eberspächerstraße 24
73730 Esslingen
GERMANY
Phone: +49 711 939-00
Fax: +49 711 939-0634
info@eberspaecher.com
www.eberspaecher.com

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