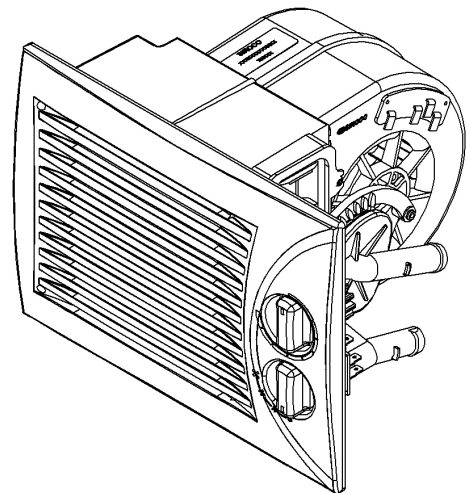




# ARIZONA

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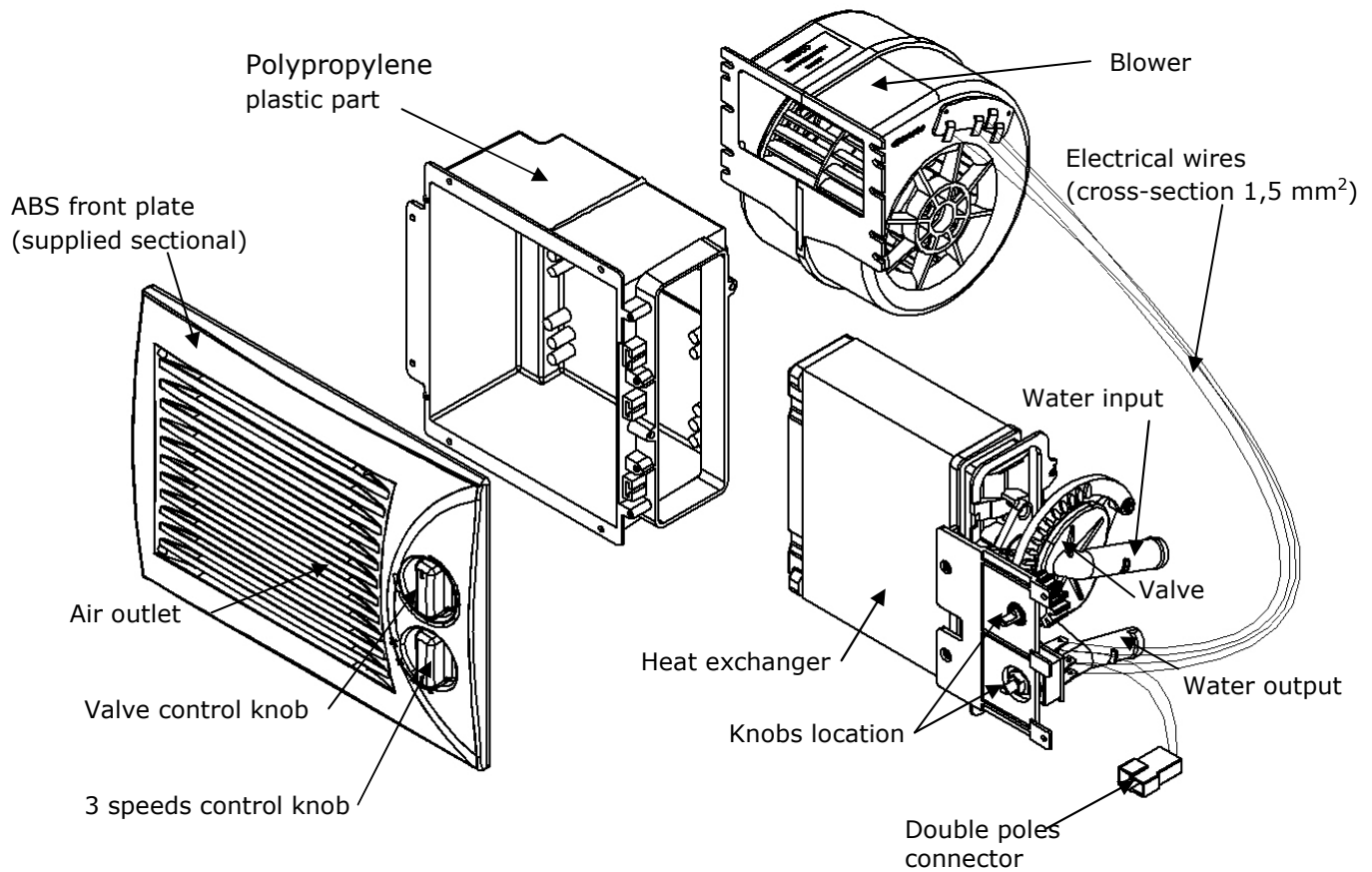


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**1 - Device description**

ARIZONA heater consist of a blower, a coil, a plastic part and a removable front plate. Plastic part is made from polypropylene. Front plate is made from heat and impact resistant ABS. Heater can operate under three different speeds: a control knob enables to select speed from front plate. There are two input air supply (on heater side), an output air supply (on front plate) and an input-output cooling water supply. Heater including an integrated valve controlled from front plate with a knob.

ARIZONA's front plate is available in different colors : white, grey, anthracite or black. Heater can be equipped with 600, 400 or 300 blower that supplied in 12 V or 24 V with connections pipes diameters of 16 mm.

Product part numbers:

Voltage	Front plate color	ARIZONA 600	ARIZONA 400	ARIZONA 300
		Part number	Part number	Part number
12 V	White	0120 0001	0120 0101	0120 0201
	Grey	0120 0002	0120 0102	0120 0202
	Anthracite	0120 0003	0120 0103	0120 0203
	Black	0120 0004	0120 0104	0120 0204
24 V	White	0120 0005	0120 0105	0120 0205
	Grey	0120 0006	0120 0106	0120 0206
	Anthracite	0120 0007	0120 0107	0120 0207
	Black	0120 0008	0120 0108	0120 0208



## 2 - Operation

Cooling water, beforehand heated by the vehicle, run on coil. In the same time, fan unit blows fresh air through the heat exchanger. Then, air temperature rise up. Finally, air output evacuate hot air.

### Operating conditions:

Product must be on a ventilated place.

Operating temperature have to be between -30°C and +80°C.

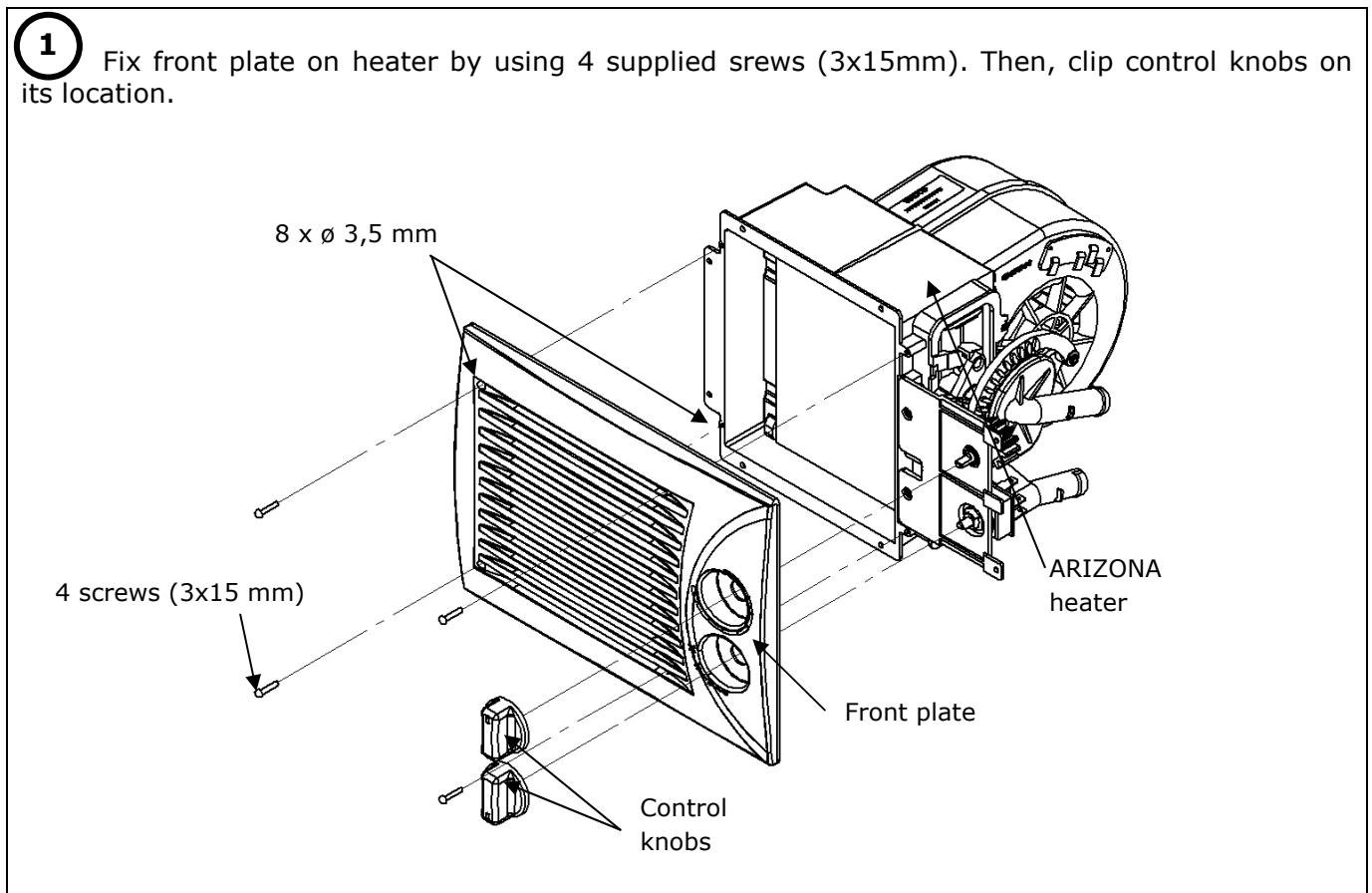
Cooling fluid must be antifreeze and anticorrosive for copper and aluminum. Use a cooling fluid officially recognize by automotive manufacturers.

### Technical data:

Type	Voltage	Electrical power	Weight	Nominal air flow	Heating capacity	L depth (see §3 step 2)
ARIZONA 600	12/24 V	150 W	2,3 kg	380 m <sup>3</sup> /h	6,10 kW	227 mm
ARIZONA 400	12/24 V	120 W	2 kg	285 m <sup>3</sup> /h	5,00 kW	218 mm
ARIZONA 300	12/24 V	55 W	2 kg	200 m <sup>3</sup> /h	4,35 kW	218 mm

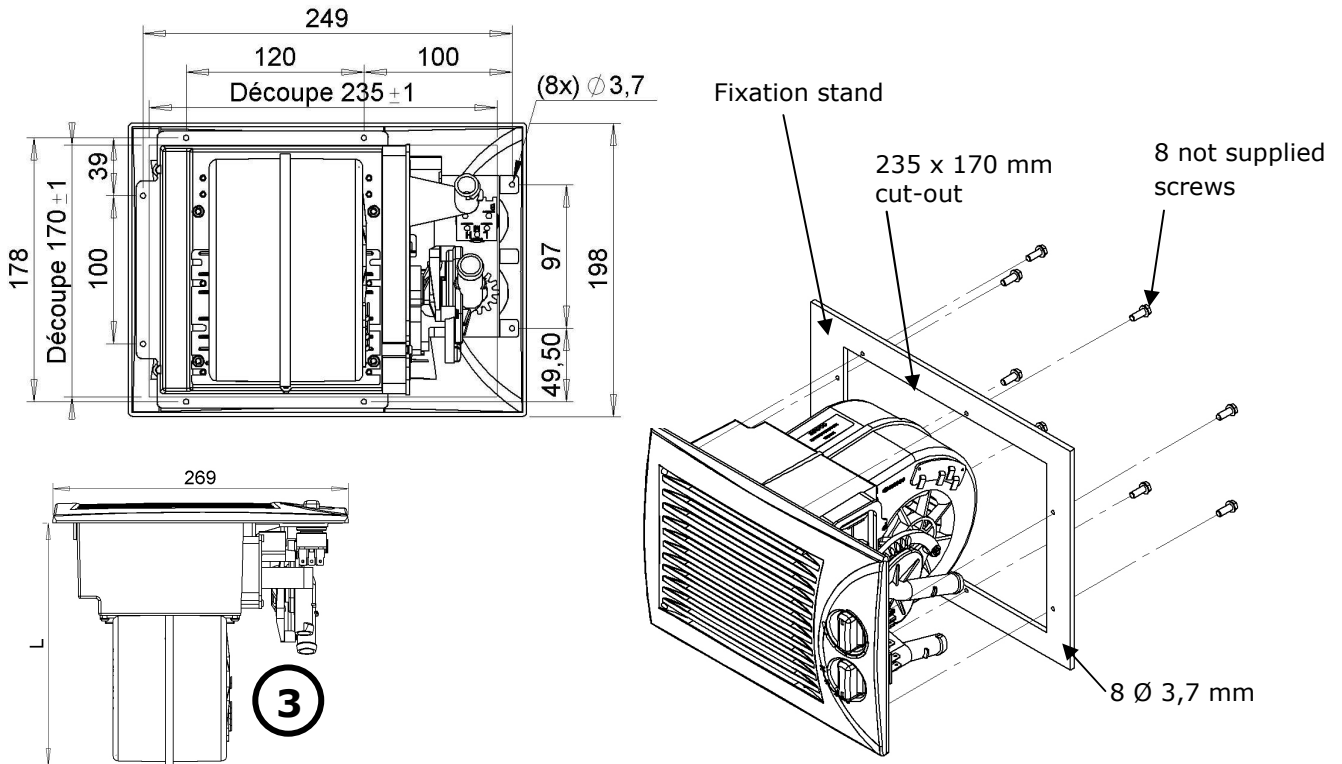
Optimum heating capacity is reached with air inlet temperature of 0°C, nominal air flow of 0,5 m<sup>3</sup>/h, free ethylene glycol water and water inlet temperature of 100°C.

## 3 - Mounting information



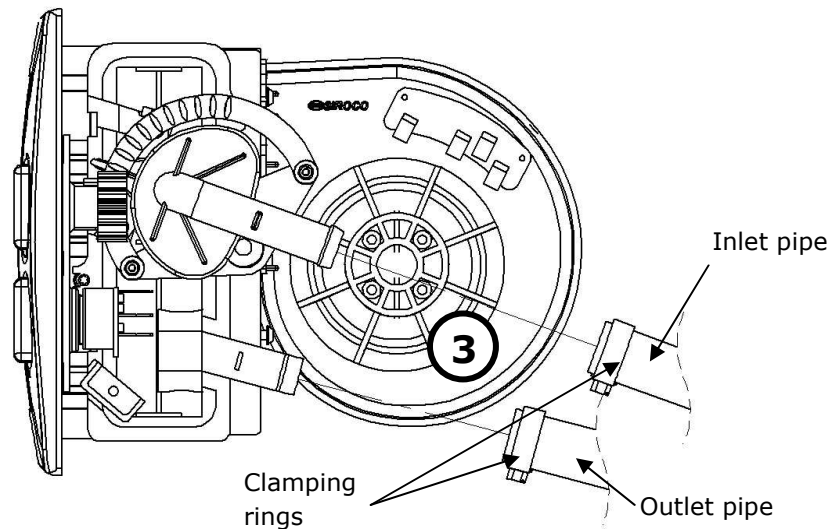


- 2** Fix product on its cut stand with 8 not supplied screws. Blower motor axis should rather be in horizontal position on the vehicle.



Do not drill heater's body so as not to damage heat exchanger !

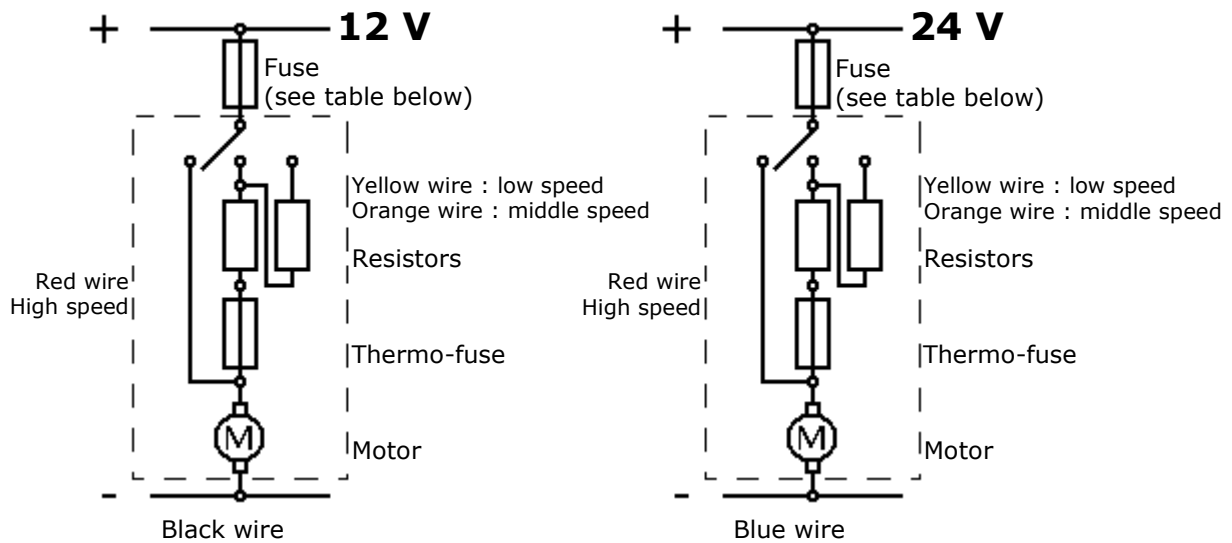
- 3** Connect water input and output by using cooling pipes with corresponding diameter. Using suitable clamping rings.



Check for leaks in water.



- ④ Connect double poles connector according to the following circuit diagram. Use at least 1,5 mm<sup>2</sup> cable cross-section.



Heater

**Fuses values :**

Voltage	12 V	24 V
ARIZONA 600	15 A	7,5 A
ARIZONA 400	10 A	5 A
ARIZONA 300	5 A	3 A

**4 - Trouble shooting**

Fault found	Possible cause	Action to take
Blower not working	Fuse defective	Check fuse position and amperage. If necessary replace it. Before renew a fuse, always identify causes. Examine blowers for a blockage or another type of defect and rectify the cause.
	No vehicle power	Switch on ignition and/or main battery switch.
		Check battery connections.
		Check vehicle operating instructions for possible advice.
	Connecting cable damaged or torn out	Replace cable. Check for correct cable routing and connections according to the circuit diagram.
	Electrical connections reversed	Check connecting wires according to the circuit diagram and if necessary assemble correctly.
	Blower switch defective	Replace the switch with a new original component.
	Blockage in fan unit	Rectify cause of blockage, e.g. object in impeller. If necessary order new unit.
Blower motor defective	Replace plastic part + motor.	
Blower doesn't operate at all speeds	No blower power	Check connection on blower switch.
	Defective resistance	Replace plastic part + motor.
Blower only runs at low and middle speed	Fuse defective	Replace fuse.
Unit cannot be switched off	Short-circuit in cable	Rectify circuit diagram. If necessary, install new cable.



<b>Fault found</b>	<b>Possible cause</b>	<b>Action to take</b>
Blower only operate at reduced power	Rated voltage is wrong	Rated voltage of unit and on-board circuit must be the same. Order new unit.
	Air nozzles closed or covered	Open nozzles or free up inlet/outlet openings.
	Electrical wires are underdimensioned	Install recommended cable cross-section.
	Heat exchanger severely contaminated	Carefully clean avoiding damage which can lead to leaks. <b>WARNING!</b> Observe safety instructions.
Heating doesn't function	Vehicle engine is not running	Start engine.
	Cooling water still cold	Wait until the engine reaches operating temperature
	Water valve closed	Open valve. See the vehicle manufacturer's operating instructions.
	Water lines kinked or squashed	Eliminate fault by installing correctly.
	Water pump pressure insufficient	Heat exchanger does not have cooling water flowing through. Install additional pump or more powerful one.
Reduced heating performance	Volumetric air flow from blower is too low	See action to take under "Blower"
	Water flow rate through heat exchanger is too low	Open valve to the maximum.
		Water lines kinked or squashed. Relay hoses. Water pump pressure too low (see above for action).
	Air in heat exchanger	Flush-out water circuit.
		When the pumping pressure is sufficient the heater is self bleeding. Install additional or more powerful water pump.
	Unit is underdimensioned	Install a more powerful unit.
	Insufficient pumped water pressure	Install additional pump or a more powerful one.
Heat exchanger severely contaminated	Carefully clean avoiding damage which can lead to leaks.	



Products which have already been pulling apart are not covered by guarantee.

## 5 - Security advice

Consider the following advice for your own safety :

- Installation must only be done by well-formed and authorized specialists.
- Product must operate on a well-ventilated place.
- Products have to be used only according to the intended use. Products shall not be used in improper environment. Pay attention to guarantee.
  - Before using products, ensure that regulations and laws are strictly adhered according to the country.
    - For security reasons (fire hazards), fuses with required amperage must be used to protect electrical connections.
    - Cut electrical connections before working on product.
    - Do not get into contact with the heat exchanger and its connections.
    - Do not grip into the unit and do not put objects inside.