



A/C-Purifier AQC®



The AQC® (Air Quality Conditioner) eliminates germs and bacteria that arise on the air conditioning unit's evaporator, an innovation that contributes significantly to passenger comfort.

The AQC® eliminates a common problem with evaporators. They release bacterial byproducts that not only cause disagreeable odors but can even be harmful to health. The AQC® solves the problem in a novel way.

The AQC[®] Principle



AQC[®] blocks dielectric discharge in order to generate ozone from oxygen in the air. Several kilovolts of alternating current arise between two electrodes, resulting in the formation of highly energized plasma on the outer electrode. Colliding electrons give rise to oxygen radicals that react with oxygen molecules to form ozone (plasma discharge). The system requires no maintenance and thus requires no disinfectant re-fills because the disinfectant is generated from ambient air.

Ozone can help reduce bacterial buildup in two ways. The system employs both ways by utilizing the considerable oxidizing power of ozone and the strongly disinfectant effect of hydrogen peroxide. Part of the ozone that the evaporator generates dissolves in the film on the evaporator and reacts with the water in the film to form hydrogen peroxide, a common disinfectant used in hospitals and doctors' offices.

paragon's AQC[®] comes with a BUS interface as standard equipment. It only generates ozone if there is regular communication between the air conditioning system's computer and the AQC[®] module. If communication is disrupted, the AQC[®] automatically stops producing ozone. The AQC[®] is also equipped with a watchdog timer that restarts the system in the event of an error. The AQC[®] operates in several different ways to assure safe operation.

AQC® Integration

Positioning the AQC® is critical. Its position will depend on the type of air conditioning unit. The module is installed behind the exterior filter but in front of the evaporator. This step will allow for good dispersion of the generated ozone to all the critical areas on the evaporator as well as to its immediate vicinity.

paragon has designed the housing so that it can be installed from outside the air conditioning unit so as not to further disrupt air flow. paragon works closely with its customers to select the optimum installation position and fine tune the operating parameters. We do our utmost to find a specific solution for our customers.

paragon has conducted extensive in-house testing verified by an external institute, which has proven the effectiveness of AQC®.



paragon AG
 Schwalbenweg 29
 33129 Delbrück · Germany
 Phone: +49(0)5250-9762-0
 Fax: +49(0)5250-9762-60
 E-Mail: info@paragon.ag
 Internet: www.paragon.ag



The Benefits of AQC®

- Harnesses the oxidizing power of ozone
- Forms hydrogen peroxide - a disinfectant
- Reduces bacterial buildup on the evaporator
- Improves automobile air quality and passenger comfort

AQC® Specifications

Parameter	Values	Note
Operating voltage	9 V bis 16,5 V DC	
Power consumption	500 mA	
Power input	6 W	
Activation*	PWM	
Dimensions	86 x 75 x 40 mm	L x W x H
Weight	< 100 g	
Mount	Bayonet	
Probe opening	∅ 55 mm	
Plug*	AMP connector / 3 pins	AMP 967642-1 Coding B (at the wiring harness)
Ozone production rate	50 mg/h	At 20° C and 50 % relative humidity
Operation temperature	-40° C to +85° C	
Storage temperature	-40° C to +105° C	
Protective system*	IP5K5 nach DIN 40050-9	Probe
*customizable	IP50	Plug