

AQS1

AIR QUALITY SENSORS

MUONIO system is a network of devices for heating, cooling, and ventilation that brings comfort to your home.

The AQS1 air quality sensor is available in two variants; the AQS1_TH that monitors temperature & humidity and the AQS1_THV that monitors air quality through volatile organic compounds (VOC) in addition to temperature and humidity.

The AQS1 Sensor requires 3xAA batteries to operate and is responsible for creating a comfortable and healthy living environment within your home.

Package contents:

- Air quality sensor
- Operating instructions

Introduction



This manual describes how to understand and install the air quality sensor AQS1



This device is meant to work in combination with the MUONIO devices and it is not a stand-alone device.

WARNING & INFORMATION SYMBOLS



CAUTION

The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER

The Information symbol is used to address practices not related to physical injury and to indicate where useful facts will assist in installing or using the device correctly.



IMPORTANT INFORMATION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



IMPORTANT INFORMATION

IMPORTANT! Disregard will lead to permanent equipment damage!



INFORMATION! indicates an explanation containing information that is useful to know, a supplementary operating procedure, or other data.

Read the operating instructions carefully before using the device for the first time and preserve this booklet for later reference. Pass this manual on to whoever might acquire the device at a future date.



CAUTION

This device must not be operated by children and persons who are not able to operate the device safely due to their physical, sensory, or mental abilities or their inexperience or lack of knowledge. Children should be supervised to ensure that they do not play with the device.



CAUTION

Damage to the device: If the device is defective, do not attempt to repair it yourself. In cases of damage, contact the manufacturer.

Operating Environment

Position the device on a stable, flat surface and do not place any objects on the device. The device is not designed for use in environments with high temperatures or humidity (where condensation may occur) and must be kept free of dust. Operating temperature and operating humidity: 5 °C to 40 °C, max. 90% RH Always make sure that:

- no direct heat sources (e.g. radiators) can affect the device;
- the device is not exposed to direct sunlight or strong artificial light;
- contact with the spray, dripping water, and corrosive liquids is avoided and the device is never operated near water, in particular, the device may never be immersed in liquids (do not place any objects containing liquids, such as vases or drinks, near the device);
- the device is never placed near magnetic fields (e.g. loudspeakers);
- no fire hazards (e.g. burning candles) are placed on or near the device;
- no foreign bodies are introduced into the device;
- the device is not subjected to extreme temperature changes.
- the device is not subject to excessive shocks and vibrations.

Intended Use

This device is a consumer electronics device. The device may not be used outdoors or in tropical climates. Only external devices that comply with safety standards and are compatible with this device in terms of electromagnetic compatibility and shielding may be used. This device fulfills all relevant norms and standards as associated with CE Conformity. Any unauthorized modifications to the device may result in these directives no longer being met, and the manufacturer will not be liable for any damage or injury resulting from unauthorized modification. Only use the accessories recommended by the manufacturer.



CAUTION

Introduction



REPAIRS



CAUTION

Repairs are required when the device has been damaged in any way, for example when a liquid has entered the product, when the product has been exposed to rain or moisture, or when the product does not work normally or i.e. the product has been dropped. If smoke, unusual noises, or smells are noticed, switch off the device immediately. In these cases, the device may no longer be used until it has been inspected by authorized service personnel. Please contact qualified personnel when a repair is required. Never open the housing of the device or the accessories. Only use a clean, dry cloth for cleaning. Never use any corrosive liquids.



CAUTION

CHILDREN



CAUTION

Electrical devices do not belong in the hands of children. Do not allow children to use electrical devices when not under supervision. Children may not understand that they can be dangerous. Batteries and small parts represent potential choking hazards. Keep batteries out of the reach of children. If a battery is swallowed, seek medical help immediately.

Keep all packaging well away from small children. There is a risk of suffocation!



CAUTION

Batteries must be handled with special care. Take note of the following safety instructions:

- Keep batteries well away from children. Children can put batteries into their mouths and swallow them. If a battery is swallowed medical assistance must be sought IMMEDIATELY.
- Do not throw batteries into a fire. Never subject batteries to high temperatures.
- Explosion hazard! Non-rechargeable batteries must never be recharged.
- Do not open the batteries or short-circuit them.
- Battery acid leaking from a battery can cause inflammation of the skin. In the event of contact with the skin, rinse with large amounts of water. If the liquid comes into contact with your eyes, rinse thoroughly with water, do not rub, and immediately consult a doctor.

DAMAGE TO THE DEVICE



- If the device is defective, do not attempt to repair it yourself. In case of damage, contact the manufacturer.
- If liquid escapes from the device or if the device has been otherwise damaged, it must be inspected by the manufacturer or the manufacturer's service hotline. Contact the manufacturer.
- Take the batteries out of the battery compartment as soon as they are depleted.
- If the device will not be used for a long time, remove the batteries to prevent them from discharging.
- Always change all batteries at the same time and always use batteries of the same type

Technical datasheet

Power supply: 3 X AA battery

Radiofrequency 2.4Ghz

Connector for ID Key

Sensors AQS1_TH: Temperature, humidity

Sensors AQS1_THV: Temperature, humidity, and VOC

Introduction

GENERAL OVERVIEW

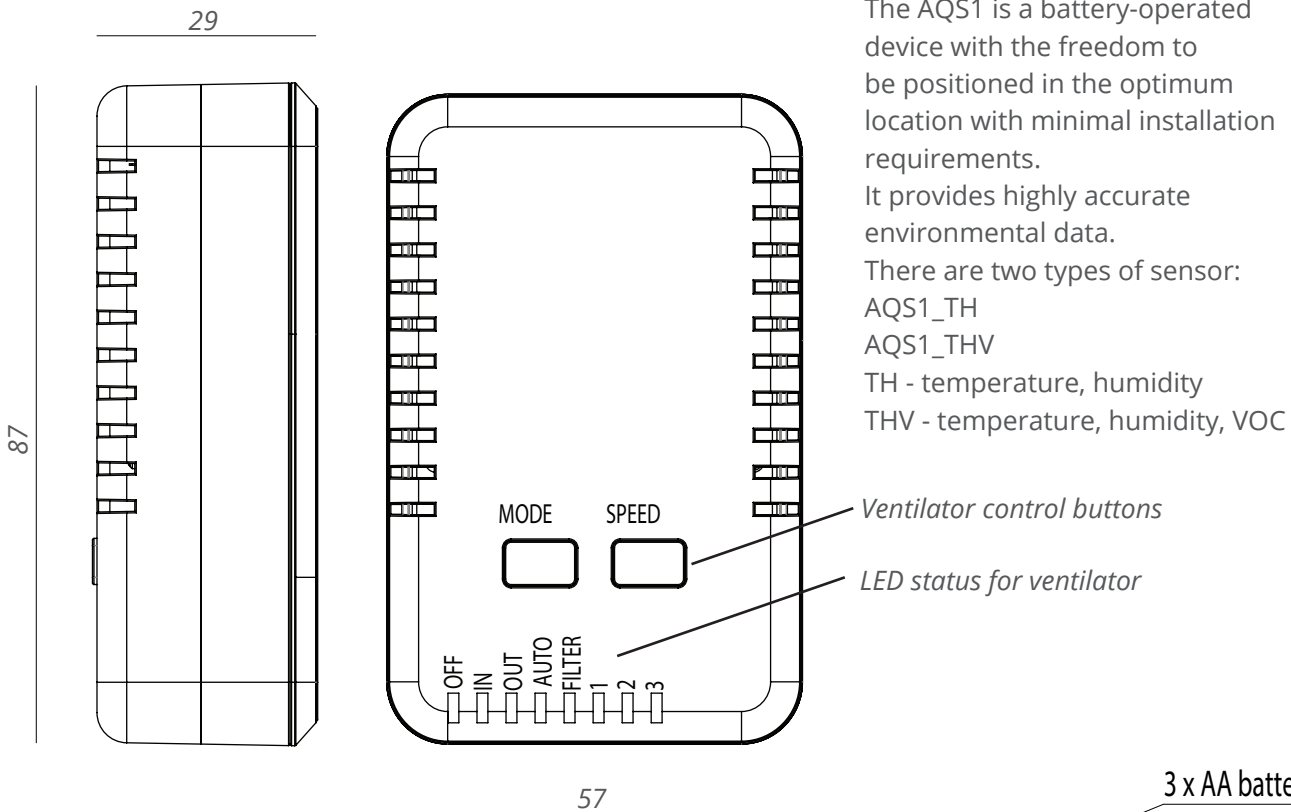


FIGURE 1. AQS1 GENERAL

3 batteries are used to power the device. For the AQS1_TH the estimated battery life is 1-2 years and for the AQS1_THV it is 0,5-1 year.

An ID KEY is required for joining devices to the mesh network. For a more detailed description please see the GATEWAY manual.

Insert a programmed ID KEY into an un-powered AQS1 device and then power the device by inserting the batteries. If all is done correctly, the sensor will appear in the app and create a zone.

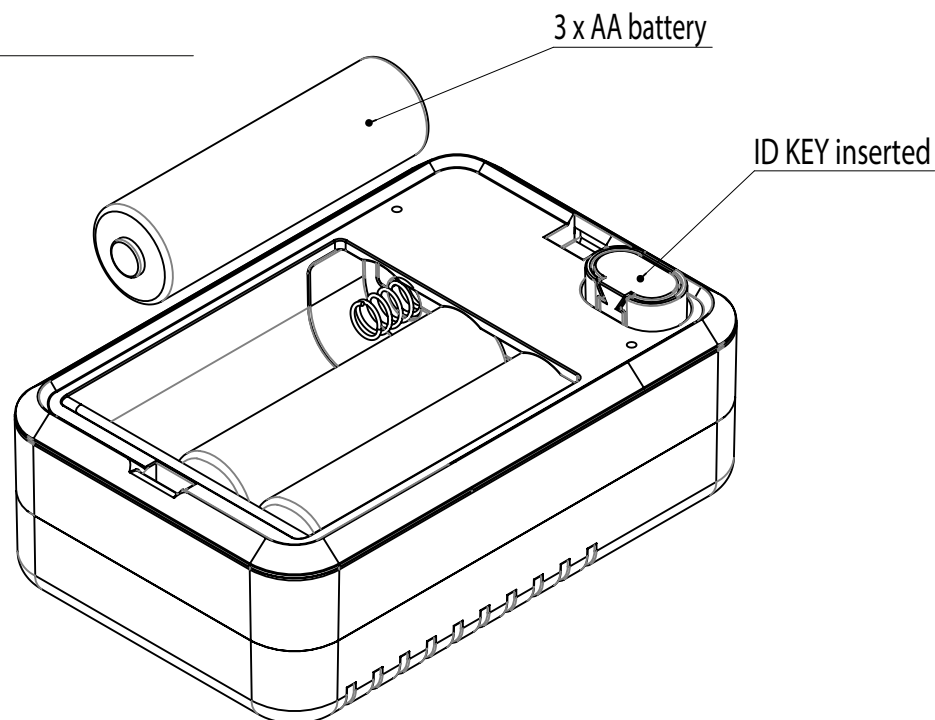
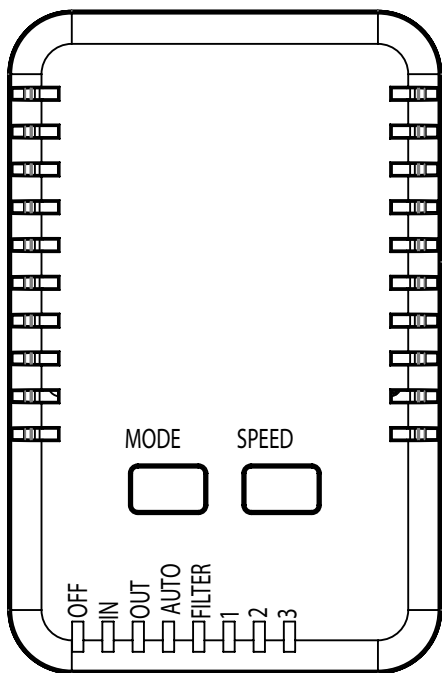


FIGURE 2. AQS1 INSIDE

Button controls & position

MANUAL CONTROLS



If a zone incorporates a ventilation system, it is possible to control it locally from an AQS1 device.

Press any button for the sensor to retrieve information. Then press MODE to change the mode of work (OFF, IN, OUT, AUTO) or SPEED button to change the fan speed of the ventilators..

There is also one additional LED that will glow if the filter needs cleaning. The LEDs are not showing data indication unless a button is pressed to preserve the battery.

If a ventilator is not present in the zones these buttons will not have any effect.

FIGURE 3. MANUAL CONTROL FOR VENTILATOR

POSITIONING THE SENSOR

The positioning of the sensor plays a significant role in how the system works. If the sensor is positioned incorrectly the readings might be inaccurate. Do not place a sensor in the following places:

- Places with direct sun exposure.
- Places where the sensor can be exposed to any kind of fumes and heat (for example near cooking devices)
- Too low or too high, air stratification plays a significant role in temperature sensing (Typically 1.5m from the floor is good).
- Places with air drafts, near open windows, etc., where sudden temperature changes can occur.
- outside (sensor is not designed to work outside or sustain water drops).
- in an industrial environment or dirty places.

Relative Humidity is directly correlated to temperature so having the correct temperature reading is very important. The same applies to the air quality sensing element (VOC) whose readings are constantly adjusted for temperature and humidity, therefore having correct accurate readings is important for the sensor to operate correctly.

Data from the sensor



EXAMPLE HOME SCREEN

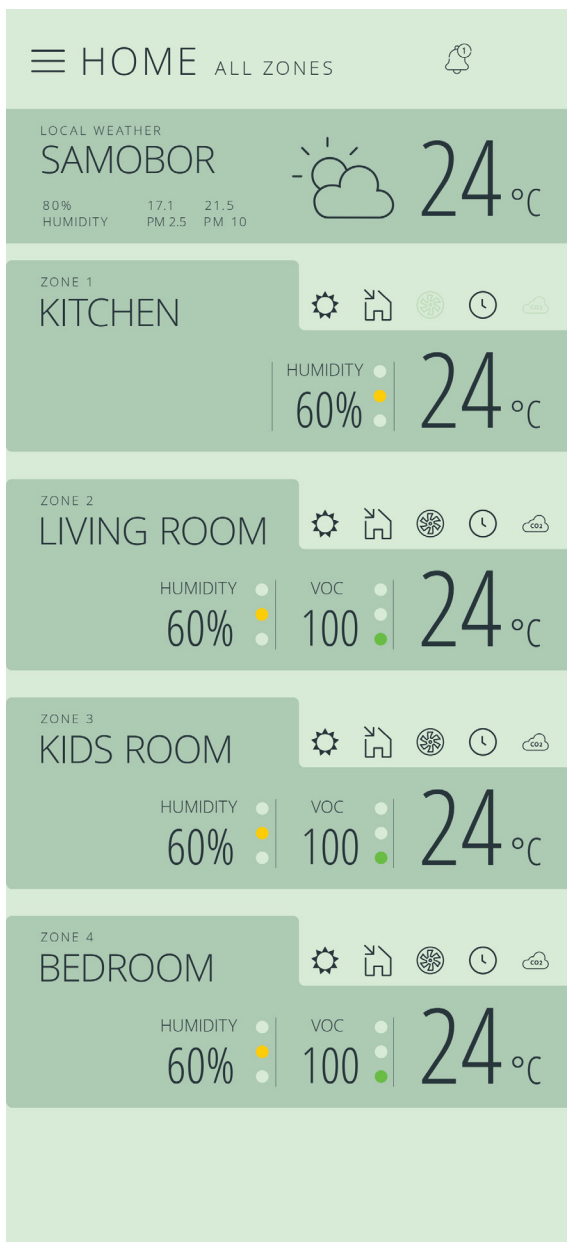


FIGURE 4. HOME PAGE INFO

Weather information for your town. The town can be chosen on the settings page.

Zone 1 sensor (Example)

This sensor is a AQS1_TH which monitors temperature & humidity information. Depending on the other devices connected to this zone, data will be shown for heating/cooling and/or ventilation. If there are no devices connected to this zone there will be no icons for work status. This zone has a heating system connected to it which can be seen from the sun indicating heating and the house symbol that shows which heating setting is on.

Zone 2 sensor

This sensor is a AQS1_THV which monitors the monitors the temperature, humidity, and air quality data. This zone also has a ventilator connected to it in addition to the devices in Zone 1.

Zone 3 sensor

This Zone has the same sensor and devices as Zone 2 above.

Zone 4 sensor.

This Zone has the same sensor and devices as Zone 2 & 3 above.

Depending on the system you have there can be a maximum of 4 zones in one system/gateway.

By clicking on a zone you will be directed to a more detailed settings page for each zone.

The sensors will automatically show data they have available.

For more information on how the air quality sensors (AQS1) operate as a part of the Muonio system please refer to other manuals, particularly the GATEWAY manual.

Air Quality Sensor



AIR QUALITY SENSOR DETAILS

Volatile organic compounds (VOCs) are organic chemicals that have a high vapor pressure at ordinary room temperature. Their high vapor pressure is a result of their low boiling point, which cause a large number of molecules to evaporate or sublime from a liquid or solid form of the compound and enter the surrounding air, a trait known as volatility.

Some VOCs are dangerous to human health or cause harm to the environment. Anthropogenic VOCs are regulated by law, especially indoors, where concentrations are the highest. Harmful VOCs typically are not acutely toxic but have compounding long-term health effects. Because the concentrations are usually low and the symptoms slow to develop, research into VOCs and their effects is difficult.

VOC measurements are based on a heated film of metal-oxide (MOx) nanoparticles. Absorbed oxygen on the metal-oxide particles reacts with the target gas thereby releases electrons. This results in a change in the electrical resistance of the metal-oxide layer that is measured by the sensor.

These measurements are not absolute but relative, clean air resistance can vary from sensor to sensor and also drift with time. There is an algorithm inside the sensor constantly trying to adjust for these variables and trying to find the current baseline readings. The best practice is to not restart the sensor if not required and at the same time avoid a sudden change in temperature/position.

A new sensor will need at least a week to have consistent readings.

For an algorithm to have correct values, the sensor periodically needs to be exposed to fresh air.

It is possible that during algorithm change, values could change for no particular reason.

Due to the nature of how air quality sensor works, battery life expectancy is considerably lower for devices equipped with air quality sensors.

Air Quality Sensor



Steps to reduce high VOC levels:

VENTILATION - ventilation is one of the best ways to reduce indoor VOC levels. A good practice is to have Demand-Controlled-Ventilation (DCV), based on air quality inputs. However, to have a successful ventilation strategy, it must be designed and maintained to proper standards. For instance, if ducts used for ventilation are not cleaned at least 1 or 2 times a year, they themselves can become a source of VOC and other harmful particles.

SOURCE CONTROL - Some of the sources that can be avoided include paints, paint strippers, and other solvents, aerosol sprays, moth repellents, and air fresheners, dry-cleaned clothing, pesticides, building materials and furnishings, graphics and craft materials, etc. For more information visit:

<https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>

HUMIDITY - Dust particles and dirt accumulated in the ventilation system combined with moisture can result in biological growth and serious air quality problems. The airtightness in new buildings means considerable energy savings for space heating, but it makes it more difficult to remove excessive humidity, dust and VOC, resulting in poor air quality within the dwelling. Excessive humidity is also an important contributor to the growth of mould which can be harmful to the people.

MUONIO not only aims to raise air-quality awareness with a series of sensors that can detect possible indoor air quality problems but also offers solutions to correct said problems based on the MUONIO HR1 heat recovery ventilation system.

Table 1: Air Quality Levels

Level	Hygienic Rating	Recommendation	Exposure Limit	TVOC [ppb*]
Un-healthy	Situation not acceptable	Intense ventilation necessary Use only if unavoidable	hours	2200 and more
Poor	Major objections	Intensified ventilation/airing necessary, search for sources	< 1 month	660 – 2200
Moderate	Some objections	Intensified ventilation/airing recommended, search for sources	< 12 months	220 – 660
Good	No relevant objections	Ventilation/airing recommended	no limit	65 – 220
Excellent	No objections	Target value	no limit	0 – 65

*Translation from mass concentration [$\mu\text{g}/\text{m}^3$] to particle concentration [ppb] is based on an average molar mass of TVOC molecules, according to the TVOC mix proposed by Mølhave (Ref.: Mølhave L, Clausen G, Berglund B, et al. (1997) Total Volatile Organic Compounds (TVOC) in Indoor Air Quality Investigations. Indoor Air 7:225-240). Thereby $4.9 \mu\text{g}/\text{m}^3$ corresponds to 1 ppb TVOC concentration.

Some sources for further readings:

German Committee on Indoor Guide Values (<https://www.umweltbundesamt.de/en/topics/health/commissions-working-groups/german-committee-on-indoor-guide-values#german-committeeon-indoor-guide-values>),

American Lung Association (<https://www.lung.org>),

Prevalence of dampness and mold in European housing stock (<https://www.nature.com/articles/jes201221.pdf?origin=ppub>)

DAMP AND MOULD - WHO (http://www.euro.who.int/_data/assets/pdf_file/0003/78636/Damp_Mould_Brochure.p)

Warranty

WHAT DOES THIS WARRANTY COVER?

THIS APPLIANCE HAS BEEN MANUFACTURED WITH CARE AND WAS METICULOUSLY EXAMINED BEFORE DELIVERY. THIS LIMITED MANUFACTURER WARRANTY COVERS ANY DEFECTS OR MALFUNCTIONS IN MATERIAL AND MANUFACTURING WORKMANSHIP OF ALL PARTS SUPPLIED BY MOUNIO UNDER NORMAL USE AND SERVICE WHEN OPERATED AND MAINTAINED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR THE DURATION OF THE WARRANTY PERIOD. PLEASE RETAIN YOUR PROOF OF PURCHASE (SALES RECEIPT) FOR THE DURATION OF THE WARRANTY PERIOD OFFERED.

ALL SPARE PARTS SUPPLIED BY MOUNIO AND PURCHASED BY THE END USER ARE WARRANTED TO BE FREE FROM FAULTY MATERIAL OR DEFECTIVE WORKMANSHIP FROM THE DATE OF SALE TO THE ORIGINAL PURCHASER FOR 12 MONTHS.

ALL PARTS WARRANTY CLAIMS MUST INCLUDE A COPY OF THE PURCHASE INVOICE TO THE END USER.

MOUNIO CANNOT CONSIDER CLAIMS FOR WHICH SALES INVOICES ARE NOT AVAILABLE.

THIS WARRANTY IS NOT TRANSFERABLE.

HOW LONG DOES THE COVERAGE LAST?

DEVICE IS WARRANTED FOR FOR 12 MONTHS FROM DATE OF PURCHASE.

WHAT WILL MOUNIO DO?

THE WARRANTY OFFERED BY MOUNIO IS LIMITED TO THE MAKING GOOD BY REPAIR OR REPLACEMENT FOR THE PURCHASER ANY PART OR PARTS FOUND, UPON EXAMINATION AT ITS FACTORY, EXCLUDING SHIPPING CHARGES, TO BE DEFECTIVE UNDER NORMAL USE AND SERVICE DUE TO DEFECTS IN MATERIAL OR WORKMANSHIP.

IF A PROBLEM ARISES WITH A MOUNIO UNIT, IT MUST HAVE AN IMMEDIATE REPAIR. CONTINUED USE OF THE MOUNIO UNITS AFTER A PROBLEM HAS OCCURRED MAY HAVE SAFETY IMPLICATIONS AND CAN RESULT IN FURTHER COMPONENT FAILURE, FOR WHICH MOUNIO CANNOT BE HELD LIABLE.

RETURNED PARTS MUST BE COMPLETE AND UNEXAMINED. PACK THE COMPONENT(S) CAREFULLY TO AVOID ANY DAMAGE IN TRANSIT. CERTAIN COMPONENT PARTS, ELECTRICAL ITEMS, FOR EXAMPLE, MAY REQUIRE PARTICULAR CARE WHEN PACKING TO AVOID DAMAGE IN TRANSIT.

WHAT DOES THIS WARRANTY NOT COVER?

THIS WARRANTY DOES NOT EXTEND TO ANY MOUNIO PRODUCT THAT HAS BEEN MODIFIED OR ALTERED IN ANY WAY.

THIS PRODUCT IS NOT INTENDED TO BE PURCHASED AND INSTALLED BY UNREGISTERED HEATING ENGINEER CONTRACTORS AND ELECTRICAL CONTRACTORS. THIS WARRANTY DOES NOT COVER PRODUCTS OR PARTS PURCHASED FROM ANY SOURCE OTHER THAN LICENSED HVAC OR ELECTRICAL CONTRACTORS. THIS WARRANTY DOES NOT COVER PARTS INSTALLED BY UNREGISTERED INSTALLERS OR CONTRACTORS.

THIS WARRANTY DOES NOT APPLY TO ANY PART OF THE GOODS SUBJECTED TO IMPROPER OR ABNORMAL USE, OR ANY USE OTHER THAN ITS INTENDED USE, ACCIDENT, ACTS OF GOD, NEGLIGENCE, OR FROM IMPROPER OPERATION, ALTERATION, MODIFICATION, FITMENT OF NON-GENUINE PARTS, ACCIDENT DAMAGE, OR DAMAGE RESULTING FROM IMPROPER OPERATION, MAINTENANCE, INSTALLATION, WIRING OR NONCOMPLIANCE WITH INSTALLATION INSTRUCTIONS, DAMAGE CAUSED BY FOREIGN OBJECTS, FAILURE DUE TO LACK OF MAINTENANCE, USE OF INCORRECT FUSE PROTECTION, OR WHICH HAS SERVED ITS NORMAL LIFE.

THE WARRANTY EXCLUDES REPEAT OR ADDITIONAL REPAIRS RESULTING FROM INCORRECT DIAGNOSIS OR POOR-QUALITY PREVIOUS REPAIR WORK.

MOUNIO SHALL HAVE NO RESPONSIBILITY FOR CHARGES INCURRED BY THE CUSTOMER FOR INSTALLATION OR REMOVAL OF WARRANTED ITEMS.

THIS WARRANTY DOES NOT COVER PARTS OR EQUIPMENT USED WITH MOUNIO UNITS THAT MOUNIO DOES NOT MANUFACTURE OR SUPPLY AS PART OF THEIR PRODUCT.

CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY. THE WARRANTY PERIOD WILL NOT EXTEND TO THE UNIT OR TO REPLACED OR REPAIRED PARTS THROUGH REPAIRS MADE UNDER WARRANTY DURING THE WARRANTY PERIOD. THE MANUFACTURER ASSUMES NO LIABILITY FOR ANY HARM, WHICH MAY OCCUR AS A RESULT OF THE USE OF THE EQUIPMENT HEREIN AND SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR ANY OTHER DAMAGES WHETHER OR NOT CAUSED BY MANUFACTURER'S NEGLIGENCE OR RESULTING FROM ANY EXPRESS OR IMPLIED WARRANTY OR BREACH THEREOF. CONSEQUENTIAL DAMAGES FOR THE PURPOSE OF THIS WARRANTY SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF USE, INCOME OR PROFIT, OR LOSS OF OR DAMAGES TO PROPERTY OR INJURY OR DEATH TO PERSONS OR ANIMALS OCCASIONED BY OR ARISING OUT OF OPERATION, USE, INSTALLATION, REPAIR OR REPLACEMENT OF THE EQUIPMENT OR OTHERWISE.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF.

IT IS HEREBY CLARIFIED THAT AFTER THE STANDARD WARRANTY PERIOD, CALL-OUT CHARGES WILL BE APPLICABLE FOR ALL CALL-OUTS WITH THE COST WILL BE BORNE BY THE CUSTOMER.

WARRANTY DOES NOT COVER CHANGES OF THE PRODUCT SETTINGS BY THE USER OR ANY DAMAGE RESULTED AS FROM SUCH CHANGES.

DAMAGE TO NEW

ALL MOUNIO PRODUCTS MUST BE EXAMINED ON RECEIPT; PLEASE EXAMINE ALL UNITS AND PACKAGING, ANY CLAIMS IN RESPECT TO THE DELIVERED PRODUCTS, INCLUDING VISIBLE DEFECTS, QUANTITY SHORTAGES OR INCORRECT PRODUCT SHIPMENTS, MUST BE MADE WITHIN TEN (10) DAYS OF DELIVERY. FAILURE TO NOTIFY SELLER IN WRITING OF ANY VISIBLE DEFECTS IN THE PRODUCTS OR OF QUANTITY SHORTAGES OR INCORRECT SHIPMENTS WITHIN SUCH PERIOD SHALL BE DEEMED UNQUALIFIED WAIVER OF ANY RIGHTS TO RETURN PRODUCTS ON THE

BASIS OF VISIBLE DEFECTS, SHORTAGES OR INCORRECT SHIPMENTS.

NO CLAIMS WILL BE ACCEPTED AFTER THIS TIME.

FAILED FANS & ELECTRICAL CONTROLS

ANY FANS & ELECTRICAL CONTROL UNITS FITTED TO ANY MOUNIO UNIT THAT FAILS DURING THE FIRST TWELVE MONTHS OF WARRANTY MUST BE RETURNED TO US UNEXAMINED. WE WILL REJECT THE WARRANTY IF THEY HAVE BEEN DISMANTLED. THIS ONLY APPLIES TO THE FIRST TWELVE MONTHS OF WARRANTY.

HOW DO YOU GET SERVICE?

TO BE ELIGIBLE FOR SERVICE UNDER THIS WARRANTY YOU MUST RETURN THE WARRANTY REGISTRATION CARD INCLUDED IN THE PACKAGING WITHIN 30 DAYS OF INSTALLATION OF THE MOUNIO PRODUCT. IF SOMETHING GOES WRONG WITH YOUR PRODUCT, CALL US TO RECEIVE A RETURN MERCHANDISE AUTHORISATION (RMA) AND INSTRUCTIONS FOR RETURNING THE PRODUCT TO A LICENSED DISTRIBUTOR IN YOUR AREA OR DIRECTLY TO THE MANUFACTURER.

ONCE THE PRODUCT IS RETURNED, WE WILL INSPECT YOUR PRODUCT AND CONTACT YOU WITHIN 10 BUSINESS DAYS OF OUR RECEIPT OF THE PRODUCT TO GIVE THE RESULTS OF OUR INSPECTION. IF WE DETERMINE THAT THE PRODUCT IS COVERED UNDER THIS WARRANTY, WE WILL SHIP A REPLACEMENT TO YOU AT NO ADDITIONAL COST. REPLACEMENT PARTS MAY BE REFURBISHED. IF WE DETERMINE THAT THE PRODUCT IS OUTSIDE WARRANTY CONDITIONS, OR THAT THIS WARRANTY IS VOID, WE WILL RETURN THE PRODUCT TO YOU WITH CASH ON DELIVERY TERMS. THERE IS NO CHARGE FOR INSPECTION.

ANY FAULT MUST BE REPORTED TO AN AUTHORISED MOUNIO DEALER AS SOON AS IT OCCURS. CONTINUED USE OF A UNIT, AFTER A FAULT HAS OCCURRED, CAN RESULT IN FURTHER COMPONENT FAILURE OR INJURY FOR WHICH MOUNIO CANNOT BE HELD LIABLE.

ALL CLAIMS MUST BE SUBMITTED, BY AN AUTHORISED MOUNIO SERVICE DEALER, WITHIN 30 DAYS OF THE DATE OF REPAIR.

IN THE EVENT OF A CLAIM, PROOF OF THE SERVICE WORK CARRIED OUT BY A SUITABLY QUALIFIED TECHNICIAN IS REQUIRED.

THE CUSTOMER SHALL PROVIDE A REASONABLE, SAFE AND ACCESSIBLE WORKING ACCESS THE APPLIANCES FOR MAINTENANCE AND SERVICE PERSONEL.

ANY REPAIR OR MAINTENANCE WORK OUTSIDE THE SCOPE OR PERIOD OF THE WARRANTY SHALL BE CHARGED TO THE CUSTOMER.

THE WARRANTY IS NOT EFFECTIVE UNLESS THE SELLING DEALER REGISTERS THE UNIT, VIA THE MOUNIO WEBSITE AND CONFIRMS THE REGISTRATION TO THE PURCHASER BY COMPLETING THE CONFIRMATION FORM IN THE INSTALLATION MANUAL.

LIMITATION OF LIABILITY

MOUNIO DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES CONCERNING THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

MOUNIO MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY OR SUITABILITY FOR USE OF THE GOODS.

EXCEPT AS PROVIDED HEREIN, MOUNIO SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY OTHER PERSON OR ENTITY CONCERNING ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, THE MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY THE PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.

NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN ONE (1) YEAR AFTER THE CAUSE OF THE ACTION HAS OCCURRED.

MISCELLANEOUS

EXCEPT AS PROVIDED HEREIN, NO EMPLOYEE, AGENT, DEALER OR OTHER PERSON IS AUTHORISED TO GIVE ANY WARRANTIES OF ANY NATURE ON BEHALF OF MOUNIO.

MOUNIO MAY WAIVE COMPLIANCE WITH ANY OF THE TERMS OF THIS LIMITED WARRANTY, BUT NO WAIVER OF ANY TERMS SHALL BE DEEMED TO BE A WAIVER OF ANY OTHER TERM.

HOW DOES STATE LAW APPLY?

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS.

APPLICABLE LAW MAY PROVIDE RIGHTS AND BENEFITS TO THE PURCHASER IN ADDITION TO THOSE PROVIDED HEREIN, WHICH MAY VARY FROM STATE TO STATE.

IF ANY PROVISION OF THIS LIMITED WARRANTY SHALL VIOLATE ANY APPLICABLE LAW AND IS HELD TO BE UNENFORCEABLE, THEN THE INVALIDITY OF SUCH PROVISION SHALL NOT INVALIDATE ANY OTHER PROVISIONS HEREIN.

PLEASE RETAIN YOUR PROOF OF PURCHASE (SALES RECEIPT) FOR THE DURATION OF THE WARRANTY PERIOD OFFERED.



Disposal of Old Devices



Devices marked with this symbol are subject to European Directive 2002/96/EC. All electric and electronic devices must be disposed of separately from household waste at official disposal centres. Avoid hazards to the environment and dangers to your personal health by disposing of the device properly. For further information about proper disposal, contact your local council, waste disposal office or the shop where you bought the device.

SYSTEM NOTES

DATE _____

CUSTOMER SIGNATURE _____

Local Agent

MUONIO

FRESH & INTELIGENT

WWW.MUONIO.ME