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Microphone

ABT-M04N

EN

User Manual

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www.ambientsystem.eu

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1. Safety



Danger!
High risk: This symbol indicates an imminently hazardous situation such as "Dangerous Voltage" inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.



Warning!
Medium risk: Indicates a potentially hazardous situation.
If not avoided, this could result in minor or moderate bodily injury.



Caution!
Low risk: Indicates a potentially hazardous situation.
If not avoided, this could result in property damage or risk of damage to the unit.

1 **Read these instructions.** All the safety and operating instructions should be read before the apparatus or system is operated.

2 **Keep these instructions.** The important safety instructions and operating instructions should be retained for future reference.

3 **Heed all warnings.** All warnings on the apparatus and in the operating instructions should be adhered to.

4 **Follow all instructions.** All instructions for installation or use/operating should be followed.

5 **Do no use this apparatus near water.** Do not use this apparatus near water or a moist environment – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.

6 **Clean only with dry cloth.** Unplug the apparatus from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

7 **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** Openings in the enclosure, if any, are provided for ventilation and to ensure reliable operation of the apparatus and to protect it from overheating. These openings must not be blocked or covered. This apparatus should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

8 **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat or in direct sunlight.**

9 **No naked flame sources, such as lighted candles, should be placed on the apparatus.**

10 **Do not defeat the safety purpose of the polarized or ground-type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

11 **Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.**

12 **Only use attachments/accessories specified by the manufacturer.** Any mounting of the apparatus should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

13 **Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus.** When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

14 **Unplug this apparatus during lighting storms or when unused for long periods of time.** Not applicable when special functions are to be maintained, such as evacuation systems.

15 **Refer all servicing to qualified service personnel.** Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

16 **Avoid mechanical shocks.** Strong impacts and shocks may damage the device. Transport the device carefully and avoid dropping it.

17 **The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquid, such as vases, shall be placed on the apparatus.**

18 **Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.**



Caution! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. Dispose of used batteries according to the environmental law and procedures.

19 **Professional installation only.** Do not use this equipment in residential applications.

20 **Condensation.** In order to avoid condensation; wait a few hours before turning on the equipment when it is transported from a cold to a warm space.

21 **Hearing damage.** For apparatus with audio output, to prevent possible hearing damage, do not listen at high volume levels for long periods.

22 **Do not disassemble the device or attempt to repair or modify it.** The device does not include user replaceable components inside the chassis. Opening the chassis and unauthorized repairs will void the warranty. Unauthorized substitutions may result in fire, electric shock or other hazards.

23 **Safety check.** Upon completion of any service or repairs to this apparatus, ask the service technician to perform safety checks to determine that the apparatus is in proper operating condition.



Danger!
Overloading – do not overload outlets and extension cords as this can result in a risk of fire or electric shock.

24 **Power sources.** This apparatus should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For apparatuses intended to operate from battery power, or other sources, refer to the operating instructions.

25 **Power lines.** An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

Danger! Object and Liquid entry – never push objects of any kind into this apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the apparatus.

26 **Protective grounding.** An apparatus with class I construction shall be connected to a power outlet socket with a protective grounding connection.

Protective earthing. An apparatus with class I construction shall be connected to a mains socket outlet with a protective earthing connection.

Note for power connections

» For permanently connected equipment, a readily operable mains plug or all-pole mains switch shall be external to the equipment and in accordance with all applicable installation rules.

» For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.



This label may appear on the bottom of the apparatus due to space limitations.

Caution! To reduce the risk of electrical shock, DO NOT open covers. Refer servicing to qualified service personnel only.

Warning!
To prevent fire or shock hazard, do not expose units to rain or moisture.

Warning! Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

Warning! Power disconnect: If the apparatus is mains powered and a power supply cord set is provided, the disconnect device is the mains plug of the power cord set.
If an AC DC adapter is provided and the mains plug that is part of the direct plug in device, the AC DC adapter is the disconnect device. The socket outlet shall be near the apparatus and shall be easily accessible.



Old electrical and electronic appliances
Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive). To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.



Only used at altitude not exceeding 2000 m.



Only used in non-tropical climate regions.

2. ABT-M04N

The ABT-M04N is a 4 button analog microphone with built in AUX input, push to talk key and LED indicating the ready-to-speak status with AUX active status. Microphone can be daisy chained with up to 6 microphones. Number of connected microphones depends on the total length of the Cat5e cable and supply voltage. *Please see provided table.*

To operate the device first select the Zones by pressing designated buttons and then press MIC button. The Mic LED will start blinking green for the time of matrix activation. When Mic led is green and red ring on the goose neck lights up, microphone is ready for live announcement. On the other microphones connected in the chain, AUX LED and MIC LED are blinking indicating that live announcement is being broadcast on other microphone. When finished transmitting the message release the MIC button to deactivate the gooseneck mic

Only one microphone can have aux input active. To use it please connect device to 3,5mm jack socket market as AUX, select the zones to which AUX signal will be transfer and select AUX button to creat connection. Geen led on Aux indicates that microphone has active aux input, on the other microphones in the chain AUX LED is blinking green. Microphone always has the higher priority over the AUX. When aux is activated on selected zones on one microphone it is possible to select different zones for live broadcast on other microphones. Deactivation of the MIC will activate previously selected zones with AUX.

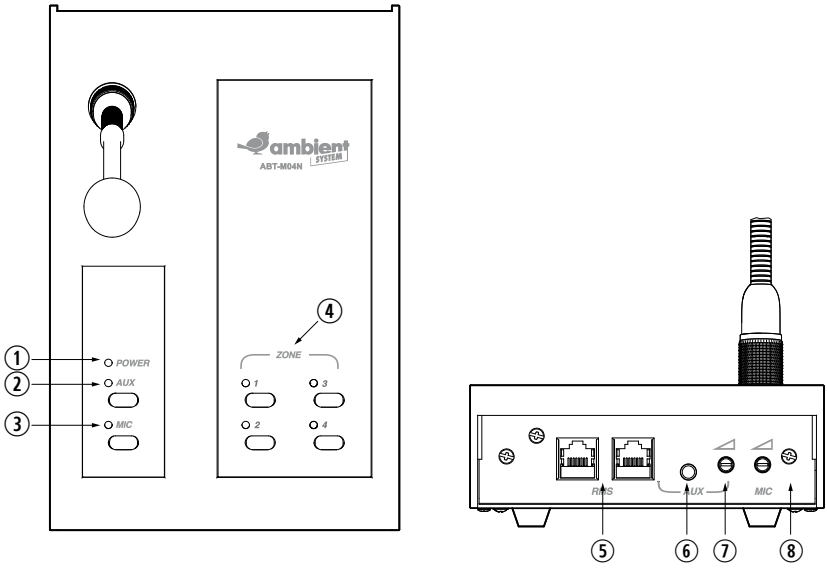


Fig. 1. ABT-M04N main control placement

1. **Power indicator - green**
2. **AUX active indicator - green indicates AUX activated on the microphone, blinking green indicates AUX activated on the other microphone**
3. **MIC activation - Blinking green indicates wait for activation or busy, Green indicates ready for live announcement**
4. **Zone selector - green light indicates selected zones**
5. **RJ 45 IN and OUT for daisy chain connection**
6. **3,5 mm stereo jack for AUX**
7. **AUX volume knob**
8. **Microphone volume knob**

3. Connection diagram

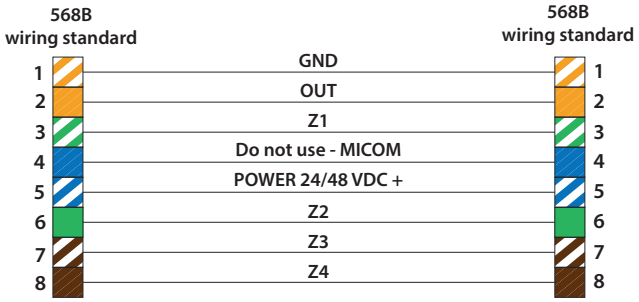


Fig. 2. Microphone Connector pinout

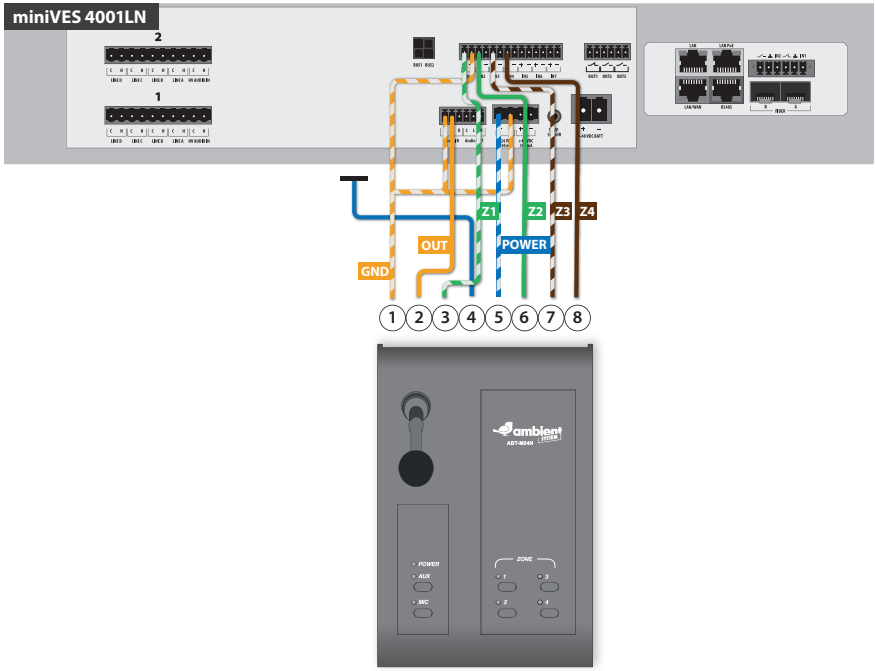


Fig. 3. Connecting the ABT-M04N microphone to miniVES and midiVES

Number of M04N for 24V VDC	Cable length to first M04N (meters)	Cable length between all daisy chain M04N (meters)	Total cable distance (meters)
1	390	-	390
2	150	150	300
3	100	65	230
4	80	35	185
5	60	25	160
6	55	15	130

⚠ typical Cat5e cable - 0,09Ω per 1m

Number of M04N for 48V VDC	Cable length to first M04N (meters)	Cable length between all daisy chain M04N (meters)	Total cable distance (meters)
1	730	-	730
2	300	200	500
3	150	145	440
4	100	90	370
5	100	45	280
6	90	30	240

⚠ typical Cat5e cable - 0,09Ω per 1m

4. miniVES and midiVES settings

» Change the generic name of the Audio input no. 3 to Local Audio IN

» In the matrix configuration tab create:

Matrix1 Audio input: Local Audio IN; Selected zones : Zone 1

Matrix2 Audio input: Local Audio IN; Selected zones : Zone 2

Matrix3 Audio input: Local Audio IN; Selected zones : Zone 3

Matrix4 Audio input: Local Audio IN; Selected zones : Zone 4

» In the Events Configuration tab assign the following events to Logical inputs:

Input 1: Active –Start /Stop matricing – Matrix1 (Mode: start), Inactive – Start /Stop matricing – Matrix1 (Mode: stop)

Input 2: Active –Start /Stop matricing – Matrix2 (Mode: start), Inactive – Start /Stop matricing – Matrix2 (Mode: stop)

Input 3: Active –Start /Stop matricing – Matrix3 (Mode: start), Inactive – Start /Stop matricing – Matrix3 (Mode: stop)

Input 4: Active –Start /Stop matricing – Matrix4 (Mode: start), Inactive – Start /Stop matricing – Matrix4 (Mode: stop)

5. Technical data

Model	ABT-M04N
Operating voltage	20 – 57 VDC
Nominal current	35mA / 48VDC; 65mA / 24VDC
IDLE current	22mA / 48VDC; 39mA / 24VDC
Efficiency	10 mV / Pa
Microphone socket	GX12 3-pin
Output level	775 mV

Input level	775mV
Input socket	Jack 3,5mm
Maximum distance from amplifier	730 m
Recommended cable type	UTP
Connector Type	2 x RJ45
Dimensions without packaging (not more than)	213 x 60 x 140 mm
Net weight (not more than)	1,2 kg

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