AUDEMO®
S Y S T E M S

Made
in
Germany

USER MANUAL

DAM-2550 A
Digital-Selective-Remote-Microphone-Unit

EN 54 16

CONTENTS

1. General

This operation manual includes important notes on safe operation of the unit. Please read all instructions and safety regulations. Keep these instructions for future reference. Take care that the operation manual is available to all users.

Our products are subject to continuous development. Therefore any technical modification subject to change without notice.

Symbols and Important Notes
This section provides you with an overview of safety warnings and symbols and their importance.

Safety Warning	Importance
DANGER!	Warning of a possible danger, which can lead to death or to serious injuries, if not avoided.
CAUTION!	Warning of a possible danger, which can lead to a possibly dangerous situation, if not avoided.

Warning Symbol	Type of risk
	Caution! Warning of a possible danger!
	Caution! Risk of electric shock!

2. Safety Instructions

1. Please read all instructions before operating the unit.

2. Keep these instructions for future reference.

3. Follow the manufacturer's instructions.

4. Pay attention to all warnings. Do not remove any safety instructions or other information from the unit.

5. Use the unit only in the intended way.

6. Take note of applicable safety regulations.

7. **CAUTION!** Do not use this unit near water or moisture. Take care that no liquid penetrates into the unit.

8. The installation must be carried out only with accessories recommended by AUDEMO SYSTEMS®. All options could only be assembled ex works in terms of warranty.

9. **CAUTION!** Do not open or modify the unit.

10. Opening of the security protected united for servicing, repair and so on is only al-lowed by the service department of AUDEMO SYSTEMS®. Interventions to the unit and breaking the seals will invalidate the warranty agreement!

11. Opening of the unit deactivates all functions! For a reactivating in factory a fee will be charged!

12. **CAUTION!** Always take care about all connections and cables after installation to avoid damages and accidents with e.g. trip hazards.

13. **CAUTION!** In any case of acute malfunction of the unit, damage or impact of objects or fluids, switch off the unit immediately and disconnect mains and emergency power supply. The unit as well as the system could only be repaired or changed by the specialized company, the contracted maintenance company or the manufacturer.

14. Clean the surface of the unit with a soft cotton cloth.

15. Pay attention to actual waste disposal laws and regulations.

DANGER!
Risk of electric shock of dangerous voltage within the units enclosure

Within the units enclosure there are uninsulated parts with high electric tension. Do not remove the cover. There are no user serviceable parts inside.

DANGER!
Possible Hearing Damage

The system produces a volume level which could damage your hearing continuously or temporarily while listening to long to headphone or loudspeaker sound sources.

Do not reproduce high volume levels for a long time. Reduce the level immediately if any noise in ear or hearing loss occurs.

Note: The level of the alert an nouncement may not be changed!

CAUTION!
Operating Conditions

The unit is intended for indoor use. To prevent damage do not use this unit near liquids and moisture. Avoid direct sunlight, heavy dirt or strong vibration.

CAUTION!
Power Supply

Verify the mains connection before installation of the unit. Compare local conditions with the information of the schematic diagram.

Initial operation, maintenance and servicing could only be affected by the specialized company, the contracted maintenance company or the manufacturer.

3. Technical Features

The PADES®2000 Digital-Selective-Remote-Microphone-Unit DAM-2550 A based on the micro-controller with the digital bi-directional transmission of data and audio via voice-over-IP (VoIP) technique and power supply via Ethernet (PoE) or RS485 serial communication. The assignment of the memory keys of the remote microphone and the optional extension module (Digital-Remote-Microphone-Extension- Module DAM-2551 A) could be programmed on the user's direct access. There are 10 programmable memory keys (enabled with the Extension-Software-License DAM-2596 A option), a keyboard of 16 keys for up to 3 digits zones (999), group-call, 2 covered alarm buttons and big push-to-talk buttons. The "+" and "–" buttons are used for selection of line input volume and sensitivity.

Integrated full-color touch screen LCD-display with 320 x 240 pixels enables indication of system information with words and icons and in addition, it announces groups and pre-assigned functions. In case of an error status, the color of the display changes and makes it easy to detect the failure. External error status could be displayed as well, enabled with the Error-Extension-Display-Software-License DMS-2038 A option. There are high-speed AD input-converter and high-speed DA output converters offering 128-times oversampling for a professional reproduction of music and speech.

0 to 32 dB input amplification and 0 to 63.5 dB output amplification with 0.5 dB controlling steps can be chosen. For maximum speech intelligibility, compressor and gate functions with separate controls are included as well as an automatic gain control (AGC). An integrated 3" special speaker system could be useful for talk-back and other special functions. Furthermore, there is a possibility to connect any audio player to the 2 integrated RCA jacks in order to supply an audio signal to the PADES®2000-system (enabled with a Digital-Exterior-Signal-Connecting-Module DAM-2552 A as an option). Up to 8 pieces Digital-Remote-Microphone-Extension-Module DAM-2551 A could be connected to a DAM-2550 A, cabled each with a Remote-Microphone-Extension- Cable DAM-2584 A each and enabled with Extension-Software-License DAM-2597 A option.

To connect the remote microphone to the PADES®2000 microphone bus, there are available:

- Digital-Remote-Microphone-Connection-Cable, 3m
- Digital-Remote-Microphone-Connection-Cable, 5m
- Remote-Microphone-Connection-Box

Note: Equipped with Error-Extension-Software-License DMS-2038 A, the selective remote microphone will indicate external alert and fault conditions on its LCD-display as an option.

4. Operation

Announcement with a selective remote microphone DAM-2550 A:
- Select either with the keyboard of 16 keys, the 10 programmable memory keys or the memory keys of the optional extension module **DAM 2551 A** any room- and group-call lines. The chosen lines and possibly occupied lines will be indicated in the touch.

Screen LCD-display
- The integrated touch screen LCD display enables indication of system information with words and icons and in addition, it announces groups and busy lines as well as relevant system information including the power (Green), fault and alarm.
- Pushing the button A (ALL) generates an all-call (all lines chosen).
- Now push the push-to-talk button (TALK) and keep it pressed, then the voice level indication will be illuminated on the LCD.
- Now a chime signal is activated in the chosen lines to create attention.
- Start to talk after the signal slowly and clearly. Keep a 3 to 5 cm distance to the goose neck microphone and avoid if possible all pop- and wheeze-sound, because those are reproduced too due to the high-quality condenser microphone. **Do not remove the pop-screen.**
- In order to quit the announcement, release the push-to-talk button.
- Push the button C (CLEAR) in order to clear the chosen lines.

Trigger a chime signal with a selective remote microphone DAM-2550 A (optional):
- Press the push-button labeled with "gong" to trigger manually a four-tone chime signal.

Trigger a house alarm with a selective remote microphone DAM-2550 A:
- Open the protective cover of the alarm push-button.
- Now push the push-button "ALARM" and keep it pressed for at least one second.
- To reset the alarm, press the push-button "CLR".

Input selection and volume control
- Choose line/MIC input or trigger selective buttons (Pre-assigned message)
- Select the lines or groups for audio reproduction with the keyboard of (0-9) numeric keys. Adjust the volume at a required level with the + and – functional keys.

Note: The actual application, functionality and programming is adapted to building conditions and equipped individually on consumer's request. Please note all information of the schematic diagram and the assignment of the push-buttons according to the label above them.

5. Options

Order number	Description	Max. extension per unit
DAM-2550 A	Digital-Selective-Remote-Microphone-Unit	-
DAM-2551 A	Digital-Remote-Microphone-Extension-Module	8x
DAM-2596 A	Extension-Software-License DAM-2550	1x
DAM-2597 A	Extension-Software-License DAM-2551	9x

6. Technical Specifications

Digital-Selective-Remote-Microphone-Unit (DAM-2550 A)

Microphone cartridge – polar pattern	Electret - cardioid
Length of gooseneck	280 mm
Memory button	10, illuminated
Alarm button	2, illuminated, with cover
Keyboard	10 + 6 buttons
Push-to-talk button	1
Colour-LCD- touch screen display	TFT Dot-Matrix, 320 x 240 pixel, 88,9 mm (3.5 ")
Line-Input (Cinch)	100-500 mV
Power supply	48 V DC (PoE) or 12-48 V from DPM 2500A/ DAM2500A
Power consumption	3W (max.)
Connection	RJ-45, Ethernet or RS485 Serial communication
Dimensions (W × H × D)	250 × 45 × 196 mm
Weight	1.55 kg

Digital-Remote-Microphone-Extension-Module (DAM-2551 A)

Memory button	10, illuminated
Bus-connection	synchronous , serial
Power supply	3.3 V DC
Power consumption	55 mA (max.)
Dimensions (W × H × D)	50 x 45 x 196 mm
Weight	289 g

Digital-Remote-Microphone-Connection-Cable, 3m
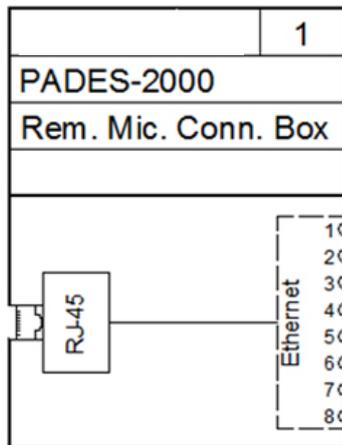
Reflection loss	min. 35 dB at 100 MHz
Insertion loss	max. 0.3 dB/m at 250 MHz
Differential mode delay	max. 0.05 µs/m at 250 MHz
Current rating	1 A
Temperature range	-40 to +70 °C
Colour	grey
Dimensions (L x D)	3000 x 8 mm
Weight	200 g
Protection rating	IP 20

Installation of the Remote Microphone Connection Box

Reflection loss	min. 35 dB at 100 MHz
Insertion loss	max. 0.3 dB/m at 250 MHz
Differential mode delay	max. 0.05 µs/m at 250 MHz
Current rating	1 A
Temperature range	-40 to +70 °C
Colour	grey
Dimensions (L x D)	5000 x 8 mm
Weight	300 g
Protection rating	IP 20

7. Installation and Front / Rear Connection
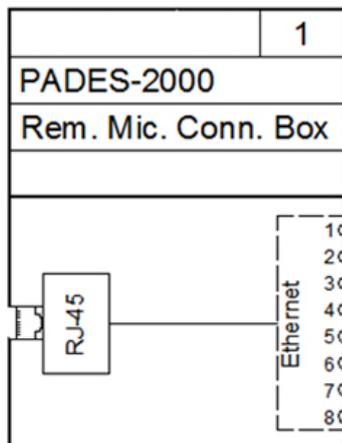
Installation of the Remote Microphone connection box:

Type A:

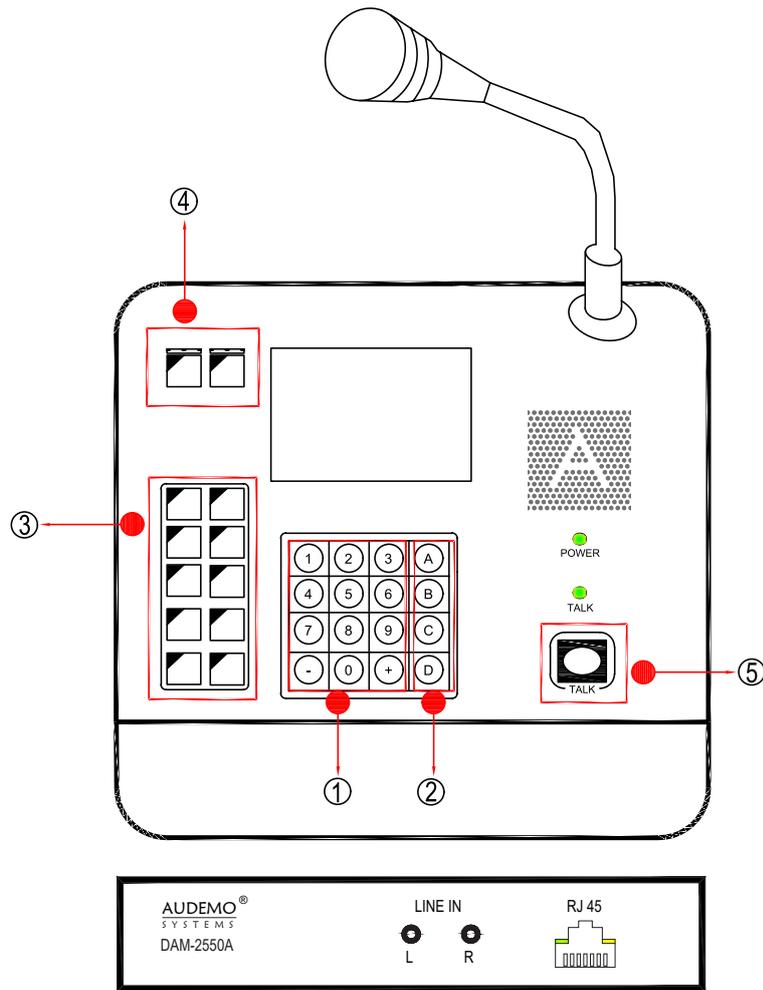Installation of the connection box using a CAT 7-cable according to T568A should be done in following order:

Pin 1: white/green
Pin 2: green
Pin 3: white/orange
Pin 4: blue
Pin 5: white/blue
Pin 6: orange
Pin 7: white/brown
Pin 8: brown

Type B:

Installation of the connection box using a CAT 7-cable according to T568A should be done in following order:

Pin 1: white/orange
Pin 2: orange
Pin 3: white/green
Pin 4: blue
Pin 5: white/blue
Pin 6: green
Pin 7: white/brown
Pin 8: brown

1	Numeric Keypad
2	Function Keys
3	Programmable Memory Keys
4	Covered Alarm Buttons
5	Press to Talk

8. Environment Protection

In any case of replacement, the substituted unit is taken back from the manufacturer.

This product is subjected to European directive 2002/96/EG and 2012/19/EU (WEEE-directive). Dispose this product never with your domestic waste.

Dispose a control center system with an accredited waste disposal company or your local disposal facility. Take care of applicable regulations. In case of doubt please contact your local disposal facility.

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