

Discussion with Small Interpretation System



VZ 5600

USER MANUAL V1.2.0



Conference System – VZ 5600 - User Manual

May. 2014

This is product information of the Conference System **VZ 5600** by KLOTZ system GmbH.

Number of this document: see footer.

You must always obtain express written permission from KLOTZ system GmbH before reproducing this documentation in whole or in part.

Specifications are subject to change without notice.

Contents

SAFETY INSTRUCTIONS AND READER'S INFORMATION	5
General Safety Instructions	6
Warning Symbols on Equipment	9
1. Precautions – VZ 5600CU Central Controller	10
1.1. General Handling	10
1.2. Ventilation System.....	11
2. VZ 5600 Discussion and Interpretation System.....	12
2.1. Applications	13
3. Overview of All VZ 5600 System Components	14
3.1. VZ 5600CU Central Controller	14
3.2. Discussion Units.....	14
3.3. Interpretation Units	14
3.4. Optional Accessories.....	14
4. VZ 5600CU Central Controller	15
4.1. Front Panel.....	16
4.2. Rear Panel	17
4.3. Operation Instructions	18
4.3.1. Start	18
4.3.2. Main Menu.....	18
4.3.3. Menu	19
4.3.4. System Testing	19
4.3.5. System Status	21
4.3.6. System Configuration.....	21
4.3.7. System Setting	22
4.3.8. Date/Time Setting.....	23
5. VZ 5510CM/5520DM Portable Microphones	25
5.1. VZ 5520DM Delegate Microphone Features	25
5.2. VZ 5510CM Chairman Microphone Features	25
5.3. Installation	26
6. VZ 5610CM/5620DM Flush Mounted Microphone Units.....	26
6.1. VZ 5620DM Delegate Flush Panel Features	26
6.2. VZ 5610CM Chairman Flush Panel Features	27
6.3. Installation	27
7. VZ 5310IM Portable Interpretation Units.....	28
7.1. VZ 5310IM Features	28
7.2. Installation	28
8. VZ 5310IM/F Flush-mounted Interpretation Unit	29
8.1. VZ 5310IM/F Features	29
8.2. Installation	29
9. VZ 5140GM/5150GM Gooseneck Microphone.....	30
9.1. VZ 5140GM/VZ 5150GM Gooseneck Microphone Features	30

10.	System Installation Guide.....	31
10.1.	Microphone Units	31
10.2.	Interpretation Units	31
10.3.	Control Interface Introductions.....	31
10.4.	Pin Assignments and Cable Making	32
11.	Specifications of VZ 5600CU.....	35
12.	System Components Description and Order Number.....	37

**PLEASE MAKE SURE TO READ THIS
MANUAL CAREFULLY BEFORE TAKING
VZ 5600CU CONTROLLER INTO OPERATION**

SAFETY INSTRUCTIONS AND READER'S INFORMATION

There is a certain **hierarchy of warnings** in **this manual**. The warnings are printed in **bold letters** and are marked by a warning sign at the margin.

1. WARNING
2. CAUTION
3. NOTE



WARNING!

The term **WARNING** will be used wherever **danger is imminent**. The possible consequences may be death or severe injury (personal injury).



CAUTION!

The term **CAUTION** will be used wherever a **dangerous situation is possible**. The possible consequences include death, severe or light injury (personal injury), damage to property (destruction of modules) or environmental hazards (fire damage). In any case, the failure to observe/comply with these instructions will result in the loss of guarantee.



NOTE!

The term **NOTE** will be used for marking **recommendations on the use**. These sections contain additional information, recommendations, hints and tips. Non-compliance with these recommendations may result in damage to property, e.g. to the system or the software.

General Safety Instructions

1. Read all instructions. Read all safety and operating instructions before operating the product.

2. Retain all instructions. Retain all safety and operating instructions for future reference.

3. Heed all warnings. You must adhere to all warnings on the product and those listed in the operating instructions.

4. Follow all instructions. Follow all operating and product usage instructions.

5. Heat. This product must be situated away from any heat sources such as radiators, heat registers, stoves, or other products (including power amplifiers) that produce heat.

6. Ventilation. Slots and openings in the product are provided for ventilation. They ensure reliable operation of the product and keep it from overheating. Do not block or cover these openings during operation. Do not place this product into a rack or studio furniture unless proper ventilation is provided and the manufacturer's recommended installation procedures are followed.

7. Water and moisture. Do not operate this product in the presence of rain, water or condensing moisture. Failures due to moisture entering the enclosure will not be covered under the warranty.

8. Debris. Do not allow any conductive objects of debris to enter through vents. Conductive debris entering the vents is likely to cause failure or performance degradation. Failures due to foreign objects entering the enclosure will not be covered under the warranty.

9. Attachments. Do not use any attachments not recommended by the product manufacturer as they may cause hazards.

10. Power sources. You must operate this product using the type of power source indicated on the marking label and in the installation instructions. If you are not sure of the type of power

supplied to your facility, consult your local power company.

11. Voltage select switch. Ensure that the voltage select switch for the power supply of the product is in the correct position for the type of voltage you use in your country (e. g. 115 V AC or 230 V AC).

12. Grounding and polarization.

Precautions should be taken so that the grounding or polarization is not defeated.

13. Power cord protection. Power supply cords must be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to the cords at plugs, convenience receptacles, and at the point where they exit from the unit. Do not defeat the earth grounding connection in the AC power cord.

14. Power cord. If you have not been provided with a power cord you're your product or for any AC-powered option intended to be used with your system, you should purchase a power cord that is approved for use in your country. The power cord must be rated for the product and for the voltage/current marked on the product's electrical ratings label defined in the user manual. The voltage/current rating of the power cord should be greater than the voltage/current rating marked on the product.

15. Lightning. For added protection for this product, unplug it from the AC wall outlet during a lightning storm or when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power line surges.

16. Overloading. Do not overload AC wall outlets, extension cords, or integral convenience outlets as this can result in a fire or electric shock hazard.

17. Object and liquid entry. Never

push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts, which could result in a fire or electric shock. Never spill liquid of any kind on the product.

18. Mounting accessories. Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury and serious damage to the product. Any mounting of the product must follow manufacturer's installation instructions.

19. Product and cart combination. Move this product with care. Quick stops, excessive force, and uneven surfaces may cause the product and the cart combination to overturn.

20. Servicing. Refer all servicing to qualified servicing personnel.

21. Damage requiring service. Unplug this product from the wall AC outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power supply cord or plug is damaged.
- b. If liquid has been spilled or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally (following operating instructions).
- e. If the product has been dropped or damaged in any way.

f. When the product exhibits a distinct change in performance. This indicates a need for service.

22. Replacement parts. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards and will void warranty.

23. Options and upgrades. Use only the options and upgrades recommended by the manufacturer.

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

25. Hot surfaces and electric discharge.

Allow the equipment's internal components (e.g. heat sinks) and hot pluggable system units to cool and/or discharge before touching them in case of any further handling.

26. Cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.



This product with the CE marking complies with the following standards and directives of the Commission of the European Community:

73/23/EEC Low voltage directive
IEC 950/EN60950 Electrical safety

89/336/EEC EMC directive
EN 55103-1 Electromagnetic interference - emission
EN 55103-2 Electromagnetic susceptibility - immunity

This product is intended for use in the following electromagnetic environments:

- **E1 (residential)**
- **E2 (commercial and light industrial)**
- **E3 (urban outdoors)**
- **E4 (controlled EMC environment, e.g. broadcast studio)**

All KLOTZ products have been developed, produced and tested accurately and according to the above named directives.

NOTE!

Improper handling of HF equipment like radio transceivers and mobiles can cause radio interferences on KLOTZ devices. For working reliability reasons it is strongly recommended not to use radio transceivers and mobiles near the devices!

Warning Symbols on Equipment

The following table contains safety icons that may appear on KLOTZ equipment. Refer to this table for an explanation of the icons and heed the warnings that accompany them.



This symbol, when used alone or in conjunction with any of the following triangle icons, indicates the need to consult the operating instructions provided with the product. **WARNING!** A potential risk exists if the operating instructions are not followed.



This symbol indicates the presence of electric shock hazards. Enclosures marked with these symbols should only be opened by a KLOTZ DIGITAL authorized service provider. **WARNING!** To avoid risk of injury from electric shock, do not open this enclosure.



This symbol indicates the presence of a hot surface or component. Touching this surface could result in bodily injury. **WARNING!** To reduce the risk of injury from a hot component, allow the surface to cool before touching.



This symbol indicates the presence of a laser beam. **WARNING!** Failure to observe this warning could result in bodily injury, fire or damage to the equipment.



This symbol indicates an electrostatic sensitive device that is susceptible to ESD discharge. **CAUTION!** Failure to observe this warning could result in damage of the device/component.

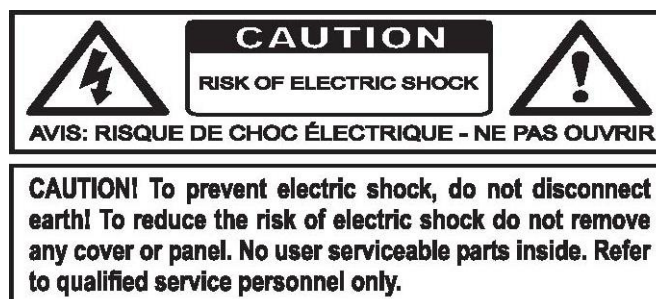


This symbol indicates the need to turn off the main plug of the equipment before open the enclosure. **WARNING!** To avoid risk from electric shock, the equipment must be disconnected from mains.



This symbol defines the terminal for protective conductor (protective earth) only!

This symbol indicates the presence of mechanical parts that can result in pinching, crushing or other bodily injury. **WARNING!** To avoid risk of bodily injury keep away from moving parts.



1. Precautions – VZ 5600CU Central Controller

1.1. General Handling

In order to prevent injuries to persons and damage to the system consider the following directions:

- ◆ The assembly, disassembly and handling of control surface components must be carried out exclusively by qualified personnel.
- ◆ Service and repair must only be carried out by authorized service personnel. These directions are part of the warranty agreement.



CAUTION!

Turn off the VZ 5600CU Controller immediately under the following conditions:

- ◆ The power cord is damaged or frayed
- ◆ Liquid spills on or into the equipment
- ◆ Someone drops the control surface or damages the casing



CAUTION!

Do not:

- ◆ Push any foreign objects into the VZ 5600CU connectors
- ◆ Clean the VZ 5600CU before it is disconnected from the power supply system
- ◆ Eat or drink while operating the VZ 5600CU to avoid that crumbs or liquid enter the control surface cabinet

Take care of the following precautions:

- ◆ Avoid exposing the VZ 5600CU Controller to extreme changes in temperature or humidity. If it is unavoidable, allow your VZ 5600CU Controller to adjust to room temperature before use
- ◆ Avoid using the VZ 5600CU Controller for extended periods in direct sunlight
- ◆ Do not use the VZ 5600CU Controller in humid or dusty environments
- ◆ If the temperature of the VZ 5600CU Controller suddenly rises or falls (for example, when you move it from a cold place to a warm one), water vapour condenses inside the control surface. Turning on the VZ 5600CU Controller under this condition can damage the internal components. Before turning on the VZ 5600CU Controller, wait until the units internal temperature acclimatizes to the new environment and the inside of the control surface is dry again
- ◆ Maintain storage temperature between -20°C and 40°C
- ◆ Keep the storage area free from vibration
- ◆ Keep the VZ 5600CU Controller and its components away from organic solvents or corrosive gases
- ◆ Avoid leaving the VZ 5600CU Controller and its components in direct sunlight or near heat sources

If there are heat sinks inside or outside the VZ 5600CU Controller, they can reach a temperature of more than 60°C, which might cause a fire on the device.

Each VZ 5600CU Controller must be properly grounded according to your local specifications and regulations.



Electrostatic sensitive devices

Boards with electrostatic sensitive devices (ESD) are mostly marked with this symbol.



CAUTION!

If you handle boards assembled with electrostatic sensitive devices you must necessarily consider the following points:

- ◆ Always discharge yourself before you start working (e.g. by touching a grounded object)
- ◆ Make sure that the equipment and tools are free of static charges
- ◆ Pull out the power plug before you insert or remove boards containing electrostatic sensitive devices
- ◆ Always hold boards with ESDs by their edges
- ◆ Never touch pins or conductors on boards assembled with electrostatic sensitive devices
- ◆ Store and transport boards/components only in electrostatic protective wrapping

1.2. Ventilation System

For maximum efficiency of the VZ 5600CU Controller and its power supply's ventilation system a properly balanced airflow must be provided.



CAUTION!

To prevent the unit from being exposed to an over temperature condition, do not block air intakes or exhausts.

2. VZ 5600 Discussion and Interpretation System

The fully modular design of the VZ 5600 system allows easy adaptation of the VZ 5600 to small systems with only a few participants as well as creating very large conference systems with up to 999 discussion units.

The VZ 5600 has integrated 2+1 interpretation languages and it can comfortably be expanded by wireless language distribution, voting system, video tracing system and Public Address systems which makes it suitable for meetings of any size and complexity.

The main features:

- ◆ Modern digital conference system for small, mid-size and large conferences
- ◆ 2+1 wired interpretation system
- ◆ Modular hence flexible and cost-efficient
- ◆ Available in two versions for both permanent and mobile installation
- ◆ Customizable with up to 100 microphone units per controller
- ◆ Up to 10 controllers can be cascaded in one system
- ◆ Up to 999 microphone units can be operated within a system
- ◆ Automatic test procedure for the system
- ◆ Support front panel key operation and software configuration
- ◆ Based on future design, provide continuous software upgrade service
- ◆ Connectivity of external control equipment and camera by integrated RS 232 or RS 422 interfaces
- ◆ Complete discussion control by most various management modes
- ◆ Unique calendar display and speaking timer
- ◆ Gain adjustment to avoid whistle
- ◆ Audio output interface on front panel, can be used for monitoring or recording in real time

VZ 5600 system installation is quite easy. All microphone units hold the connection cable themselves and you just need to connect them with daisy chain.

2.1. Applications

Active since more than 30 years in the professional audio industry, the brand KLOTZ is worldwide respected for its innovative product design and highest manufacturing quality. The VZ 5600 discussion and interpretation system is equipped with outstanding audio compression and signal processing technology and integrates all important functions within one controller. The system can simultaneously control up to 999 units and is due to its modular design a perfect solution for small and large conferences.

The VZ 5600 is the optimum solution for government summits, conference rooms, conference centers, press centers, court rooms and all other conference and discussion applications. With many exclusive functions, VZ 5600 helps substantially to make conferences more efficient and successful.

Typical locations are:

- School & Campus
- Hotel
- Conference Room
- Congress Center
- Expo Centre
- Enterprise
- Government office
- Convention Center
- Stadium
- Department Store
- ...etc.

3. Overview of All VZ 5600 System Components

3.1. VZ 5600CU Central Controller

- ◆ Up to 100 microphone units can be managed by each single central controller
- ◆ Up to 10 cascaded controllers control up to 999 discussion units
- ◆ Up to 10 chairman microphone units can be connected at any location
- ◆ Many pre-programmed workflow modes including Auto mode and FIFO mode
- ◆ Integrated automatic detection of the circuit and system configuration
- ◆ 2+1 wired interpretation system
- ◆ Audio output interface on front panel, can be used for monitoring or recording in real time
- ◆ High quality shell for surface oxidation and polishing
- ◆ Integrated RS 232 and RS 422 interfaces
- ◆ Inputs and outputs of external devices
- ◆ LC status display

3.2. Discussion Units

- ◆ Portable Chairman Microphone with LCD display
- ◆ Portable Delegate Microphone with LCD display
- ◆ Flush mount Chairman panel
- ◆ Flush mount Delegate panel
- ◆ Gooseneck microphones

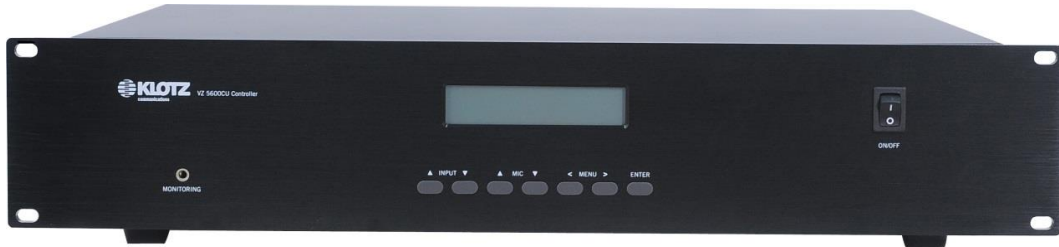
3.3. Interpretation Units

- ◆ Portable Interpretation unit
- ◆ Flush mounted Interpretation unit

3.4. Optional Accessories

- ◆ Earphone for conference monitoring
- ◆ Extension cable

4. VZ 5600CU Central Controller



The VZ 5600CU Control Unit is the central controller of the VZ 5600 system which supports discussion and interpretation units. The system supports 1 original language and 2 interpreted languages.

The VZ 5600CU is served as the power supply for all connected system components. One Control Unit can supply up to 100 discussion or interpretation units.

10 Control Units can be cascaded within one system, which means a system can control up to 999 microphone or interpretation units altogether.

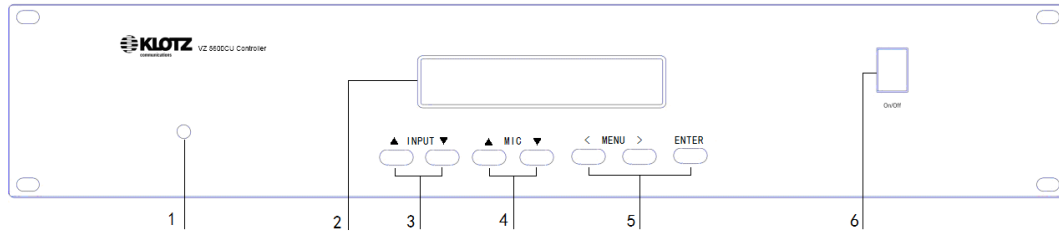
In regards to microphone units, up to 10 Chairman Units can be positioned at user-defined location in the system.

18 microphone units can be active in a system at the same time, which include 10 Chairman Units, 6 Delegate Units, and 2 Interpretation Units. The number of possible simultaneously active Delegate Units can be adjusted from 1 to 6 on the Control Unit. The default setting is 1 active Delegate Unit.

Apart from the microphone unit connectors the Control Unit offers inputs and outputs for the connection of interpretation units and external equipment such as handheld microphone, language distribution equipment, background music and PA systems.

The VZ 5600CU integrates RS232 and RS422 interfaces on the back panel of the Control Unit. With the help of these interfaces the Central Unit can be controlled by PC software or by other external devices.

4.1. Front Panel



1. Monitor

Headphone port for monitoring the floor channel and 2 interpreted channels.

2. LCD Display

To display system status, setting, and other information.

3. INPUT

To adjust the input volume of local audio source.

4. MIC

To adjust the output volume of Floor XLR

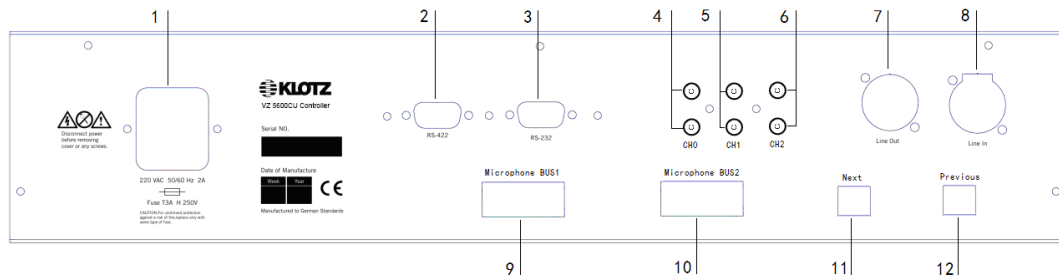
5. MENU/ ENTER

For system setting, monitoring selection or other operation.

6. Power Switch

The switch is used to control the power on and off.

4.2. Rear Panel



Connector 1: Power source connection.

Connector 2&3: Integrated RS422/ RS232 interfaces for external control devices such as PC, AMX or camera controller etc.

Connector 4: CH0 Output for floor channel.

Connector 5: CH1 Output channel 1 for interpreted language.

Connector 6: CH2 Output channel 2 for interpreted language.

Connector 7: Output for mixed signal coming from the floor channel and local audio input signal.

Connector 8: For inputting external audio source.

Connector 9: Microphone bus 1 for connection to microphone and interpretation units and also served as power supply which can drive up to 50 microphone units and 8 interpretation units.

Connector 10: Microphone bus for connection to microphone and interpretation units and also served as power supply which can drive up to 50 microphone units and 8 interpretation units.

Connector 11: Connection interface for cascading next central unit.

Connector 12: Connection interface for cascading previous central unit.

4.3. Operation Instructions

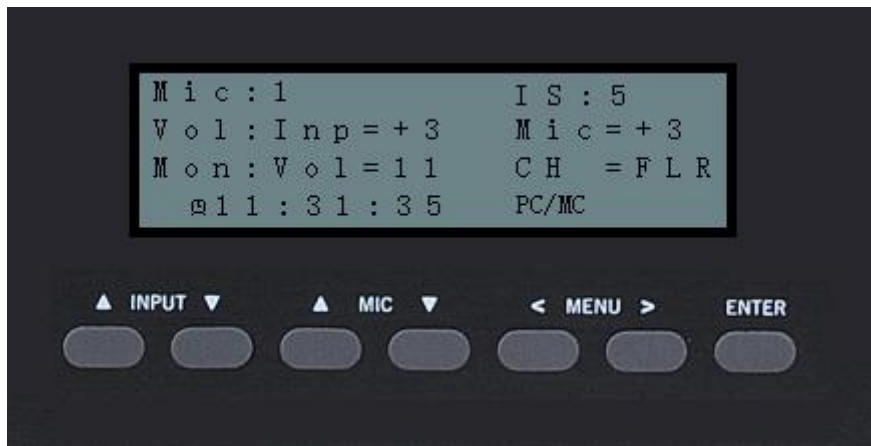
4.3.1. Start

After finishing the system connection, please turn on the power switch of the central controller, and then system will automatically search for the connected devices on the bus and then enter to the main menu. During the initiating period, central unit will display as follows:



4.3.2. Main Menu

After the initiation, the main menu would display as shown below:



Mic: 1		1 connected microphone unit in the system
IS: 5		5 connected interpretation units in the system
Vol: Inp=+3	Mic=+3	Volume value of local line input and MIC output
Mon: Vol=11	CH =FLR	Volume value and channel for monitoring
11:31:35		Time
PC/MC		System successfully connected to PC

Press INPUT ▲/▼ to adjust the local line input volume.

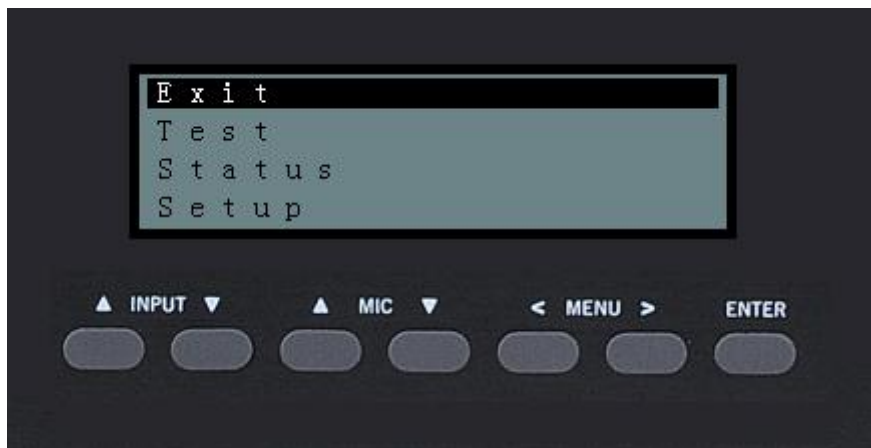
Press MIC ▲/▼ to adjust the MIC output volume.

Press MENU </ > to adjust the monitoring volume.

Press ENTER to access to the submenu.

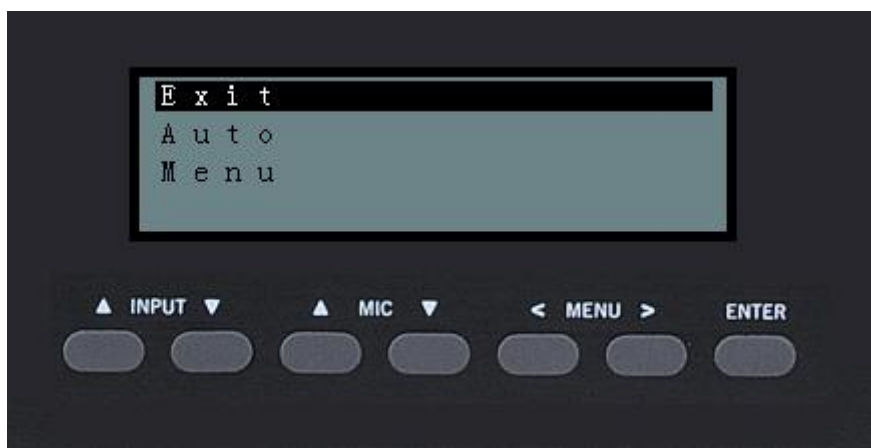
4.3.3. Menu

Press ENTER to access to menu, and use the MENU </ > for option and ENTER to determine the function.



4.3.4. System Testing

Choose 'Test' and press ENTER to enter the system test page.



Pressing the MENU </ > for option and ENTER to determine the function.

Note: The system test can only be fulfilled when there is no open microphone and no speaking request in the whole system.

When we select AUTO, an automatic test of all the microphones is started and beginning by setting microphone #1 in chain 1 on CU 0 at Request status for 0,3 second. The text in lower line on display will look like shown above. Then the same

microphone unit will be switched on for 0,3 second and the text REQ changes to SPE. Then the next microphone unit will be set in request, switched on and so on.

After completion of testing all the microphones, the test starts from the beginning again. To stop testing, press ENTER again. If a faulty microphone unit is detected, the test will stop at that point.

All microphones must be switched off before the test functions are activated.

When we select MANU, each microphone can be switched on once at a time by pushing the > button starting with the first microphone and stepping one up for every push. Pushing < will step backwards.

Automatically test the requesting of turning on microphone:



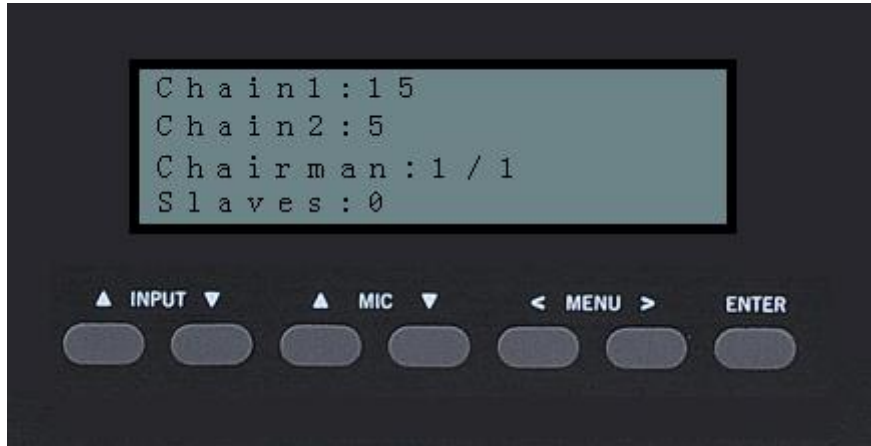
Automatically test the operating microphone:



Manual testing: System would turn on the first microphone on the BUS 1 after starting the manual testing, press '< or >' buttons below MENU to open the previous or next microphone. The status display of opening microphones on the central controller would be the same as it is for automatic testing.

4.3.5. System Status

On the menu interface, choose 'Status' by pressing ENTER for checking the system status:



Display descriptions:

- Chain1: 15 15 connected microphones on the BUS1;
- Chain2: 5 5 connected microphones on the BUS2;
- Chairman: 1/1 1 connected chairman microphone in the system;
- Slaves: 0 Connected slave Central units in the system.

Press ENTER to get back to previous menu page.

4.3.6. System Configuration

Select 'Setup' on the main menu and press ENTER to access to the system maintenance.



Pressing the MENU </> for option and ENTER to determine the function.

4.3.7. System Setting

Choose 'Config' to enter the system setting page:



Pressing the MENU </ > for option and ENTER to determine the function.

- Mode: fifo Set the conference mode: fifo, auto or manu;
- MaxSpk: 6 Set the maximum number of speaking microphone unit between 1~6;
- MaxReq: 50 Set the maximum number of requesting microphone unit between 0~999;
- MonCH: FLR Set monitoring channel: FLR, IS1 or IS2;
- SpkVol: 16 Set speaking volume between 0~32.

Description of conference modes:

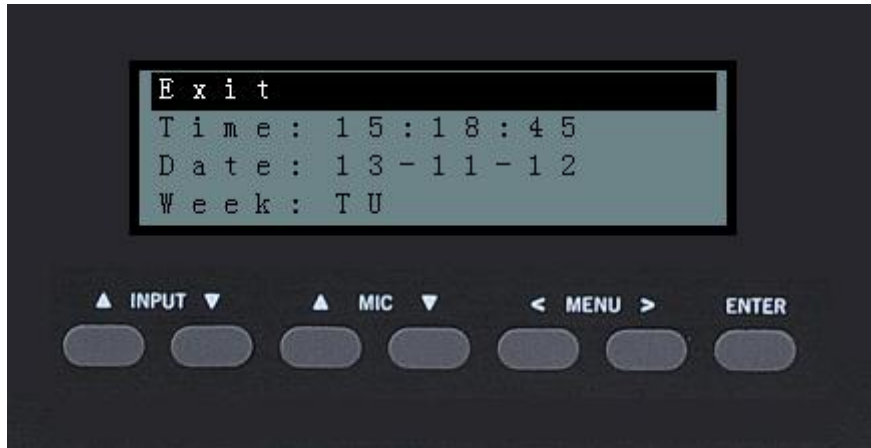
***Auto mode:** The microphone turns on when pressing the ON/OFF button. Pressing the button again will turn the microphone off. The maximum speaking microphones are limited by 'MaxSpk'. Auto mode does not permit waiting mode and the chairman unit can mute all the speaking delegate units by pressing 'Delegate Off'.

FIFO mode: First in first out mode. When the maximum number of microphone is turned on and the next delegate pressing the *ON/OFF* button will be put in the top of the request queue. This is indicated by the green request lamp flashing slowly. More delegates will be put in the queue when they press their buttons, until the maximum of requests is reached. The maximum requests are determined by 'MaxReq'. Their green lamps will light up steadily. When one of the speaking microphone units is switched off, the first microphone in the queue is automatically switched on, and the next in the queue will flash with the green lamp.

Manu: PC control mode. On this mode the settings can only be operated by PC, and delegate units could only request for speaking.

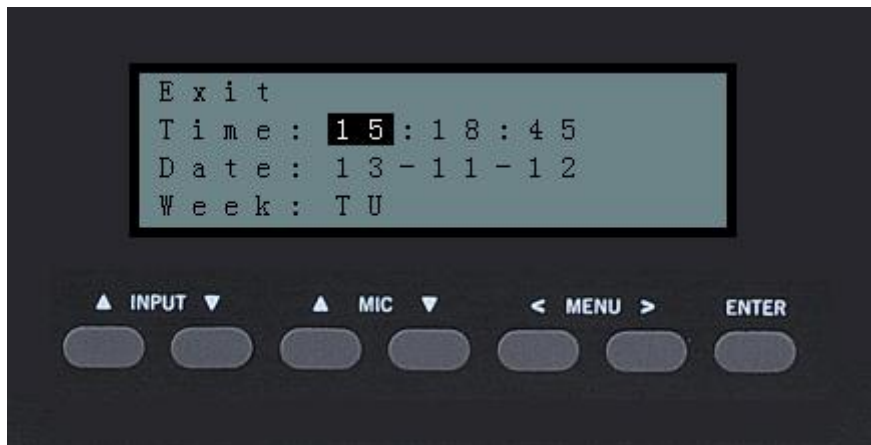
4.3.8. Date/Time Setting

Select 'Time' on the configuration menu and press ENTER to access to the Date/Time setting:



Pressing the MENU </> for option and ENTER to determine the function.

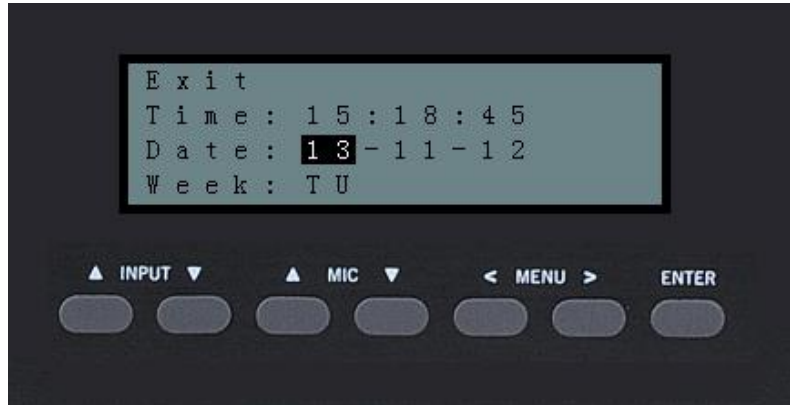
Time setting: Choose and enter to the time setting page:



Pressing the </> to modify the value and ENTER to determine the function and jump to next value changing.

Order of time elements: hour/ minute/ second.

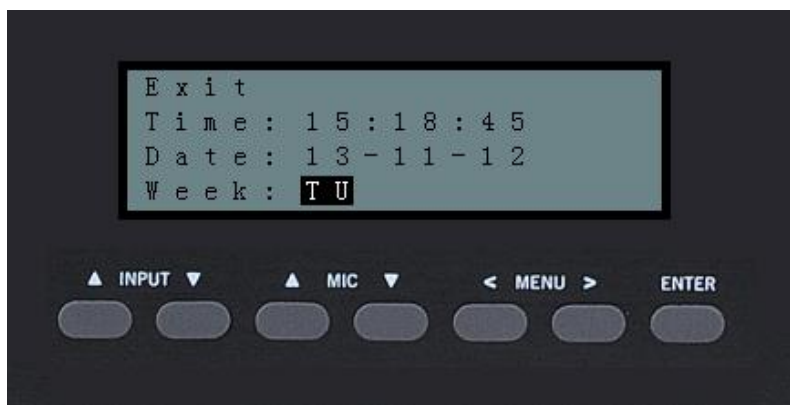
Date setting: Choose 'Data' and enter to the date setting page:



Pressing the </ > to modify the value and ENTER to determine the function and jump to next value changing.

Order of time elements: year/ month/ date.

Week setting: Choose 'Week' and enter to the date setting page:



Pressing </ > to switch among 'MO/TU/WE/TH/FR/SA/SU', and press ENTER to save the setting.

5. VZ 5510CM/5520DM Portable Microphones



The portable microphone units are microcomputer controlled conference units with loudspeaker, which is automatically switched off when the microphone is activated. Connecting with KLOTZ gooseneck microphone it can perform as a complete conference unit.

The units have 2 m cable for daisy chain connection.

5.1. VZ 5520DM Delegate Microphone Features

- Built-in simultaneous interpretation channel selector
- The functions of conference speeches, monitoring meetings and listening to translation languages
- LCD display can display system information and simultaneous transmission channel
- The bright LED indicating request or state of speech
- Automatic timing of speech
- The calendar display
- With 5 function keys, system setup and channel selection can be carried out
- Built-in high quality monitor loudspeaker
- High quality microphone jack to ensure perfect sound quality
- The 40CM/50CM length gooseneck microphone should be additionally configured, or the length of the wheat straw can be customized according to the actual furniture size
- Standard 3.5mm audio output interface, can be monitored by headphones or external devices
- 2M special cable and 15 pin copper plated joint for hand hold connection
- Adopt high-grade surface treatment metal shell, feel delicate and soft

5.2. VZ 5510CM Chairman Microphone Features

- All features of delegate microphone
- Management conference
- Priority of Chairman Microphone
- Switching off (or muting in FIFO mode) all active delegate microphones

5.3. Installation

VZ 5600 microphone units can be connected to any 2 bus ports. Each bus can drive up to 50 microphones so one central controller can drive 100 microphones. Please note that the connection cable length between the central controller and the first microphone unit should be within 100m.

6. VZ 5610CM/5620DM Flush Mounted Microphone Units



Connecting with KLOTZ gooseneck microphone VZ 5610CM/ 5620DM can perform as a complete conference unit.

The units have 2m cable for daisy chain connection.

6.1. VZ 5620DM Delegate Flush Panel Features

- Built-in simultaneous interpretation channel selector
- Conference speech, monitoring conference and listening to the functions of translation language
- LCD display can display system information and simultaneous transmission channel.
- A bright LED indicating request or state of speech
- Automatic timing of speech
- The calendar display
- With 4 function keys, system setup and channel selection can be carried out.
- High quality microphone jack to ensure perfect sound quality
- The 40CM/50CM length gooseneck microphone should be additionally configured, or the length of the wheat straw can be customized according to the actual furniture size.
- Standard 3.5mm audio output interface, can be monitored by headphones or external devices.
- 2M special cable and 15 pin copper plated joint for hand hold connection.
- All metal fuselage, high grade drawing surface treatment

6.2. VZ 5610CM Chairman Flush Panel Features

- All features of delegate flush panel
- Management conference
- Priority of Chairman Microphone
- Switching off (or muting in FIFO mode) all active delegate microphones

6.3. Installation

VZ 5600 microphone units can be connected to any 2 bus ports. Each bus can drive up to 50 microphones so one central controller can drive 100 microphones. Please note that the connection cable length between the central controller and the first microphone unit should be within 100m.

7. VZ 5310IM Portable Interpretation Units



VZ 5310IM is the perfect solution for 2+1 portable interpretation system. Combined with Klotz Gooseneck microphone or Klotz headphone it can perform as a complete interpretation set.

The unit has 2m cable for daisy chain connection.

7.1. VZ 5310IM Features

- Adopt high-grade surface treatment metal shell, feel delicate and soft
- It has 3 input channels and 2 output channels
- LCD displays the translation room number, seat number, configuration information and other system information
- Automatic timing and calendar display
- Bright LED indicating state of speech
- Antitussive function
- The built-in high quality monitor loudspeaker can choose the channel by oneself
- High quality microphone jack to ensure perfect sound quality
- I need another gooseneck microphone or headphone
- Standard 3.5mm audio input and output interface
- Support gooseneck microphone or headset input, built-in monitoring volume size adjustment function

7.2. Installation

VZ 5600 interpretation units can be connected to any 2 bus ports or behind the microphone units. VZ 5600 system can drive up to 8 interpretation sets. Please note that the connection cable length between the central controller and the interpretation unit should be within 100m.

8. VZ 5310IM/F Flush-mounted Interpretation Unit



VZ 5310IM/F is the perfect solution for permanent 2+1 interpretation system installation. Combined with Klotz Gooseneck microphone or Klotz headphone it can perform as a complete interpretation set.

The unit is equipped with 2m cable for daisy chain connection.

8.1. VZ 5310IM/F Features

- All metal fuselage, high grade drawing surface treatment
- There are 3 input channel selector keys and 2 output channel selector keys
- LCD displays the translation room number, seat number, configuration information and other system information
- Automatic timing and calendar display
- Bright LED indicating state of speech
- Antitussive function
- High quality microphone jack to ensure perfect sound quality
- I need another gooseneck microphone or headphone
- Standard 3.5mm audio input and output interface
- Support gooseneck microphone or headset input, built-in monitoring volume size adjustment function

8.2. Installation

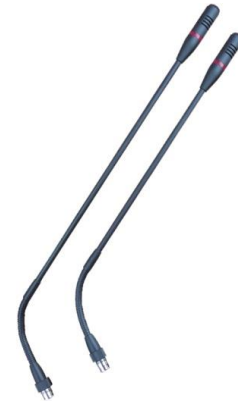
VZ 5600 interpretation units can be connected to any 2 bus ports or behind the microphone units. VZ 5600 system can drive up to 8 interpretation sets. Please note that the connection cable length between the central controller and the interpretation unit should be within 100m.

9. VZ 5140GM/5150GM Gooseneck Microphone

VZ 5140GM/VZ 5150GM Gooseneck Microphone can be connected to all KLOTZ conference discussion units and interpreter units.

9.1. VZ 5140GM/VZ 5150GM Gooseneck Microphone Features

- High fidelity microphone cartridges
- Cardioid pattern *
- Shockproof & noise proof construction
- Illuminated ring on microphone head
- Special high quality plug
- Metal shell
- Flexible gooseneck
- High close talk SPL level
- Low noise level



* The conference microphones feature a cardioid sensitivity pattern in the entire speech frequency spectrum to ensure minimum risk of an acoustical feedback arising from the sound reinforcement system.

The Gooseneck Microphone is available in two different lengths, which are VZ 5140GM of 40cm and the VZ 5150GM of 50cm, can also customize the length of the wheat bar according to the actual furniture chic.

10. System Installation Guide

10.1. Microphone Units

There are two versions of microphones which are Portable and Flush mounted units. Portable microphones are more powerful than Flush mounted units. But the Flush mounted units are always used for permanent fixed installations. We can also combine both versions in one project.

The flush mounted units are mounted in a hole cut out in the table top. And the electronics box is mounted under the table. It is very important that the system is installed correctly to assure perfect function of the system. The hole in the table must have the correct measurements. And the flush panel must be placed correctly with the front against the user/delegate.

Always switch off the main power on the central controller before removing or adding units to the system. Otherwise, the system might be damaged.

The system should keep the length of all cables as short as possible to maintain high audio quality and low noise operation. To obtain best performance it is recommended only to use 2 m of ribbon cable per unit. Only KLOTZ VZ 5690 special extension cable can be used. The maximum cable length between any two units connected together is 100 m and the total cable length in one chain must not exceed 200 m (which includes the 2 m cable on each portable unit).

It does not allow having open cable in the system (no termination unit). It might cause problems for the data transmission and pick up audio noise.

10.2. Interpretation Units

2 interpretation channels are permitted in one system and each interpretation booth can connect up to 4 interpretation sets, which means up to 8 interpretation sets are permitted in one 5600 system.

10.3. Control Interface Introductions

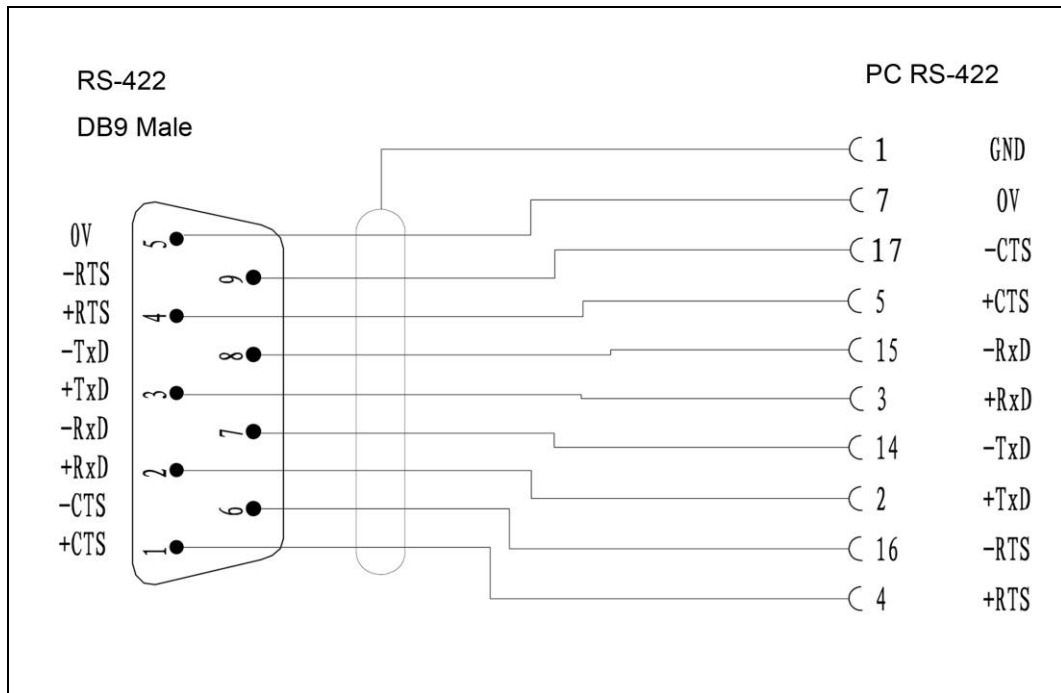
Both the RS232 and the RS422 serial ports can be used simultaneously. A maximum of four external computers or other external serial devices can thus be connected to a system. If only a single controller is present, the maximum number is two serial devices (one RS232 and one RS422).

Both ports use a data rate of 9600 baud, 8 bits, No Parity and 1 stop bit. The RTS/CTS handshake signals are in use.

RS232 cables should not be much longer than 10 m.

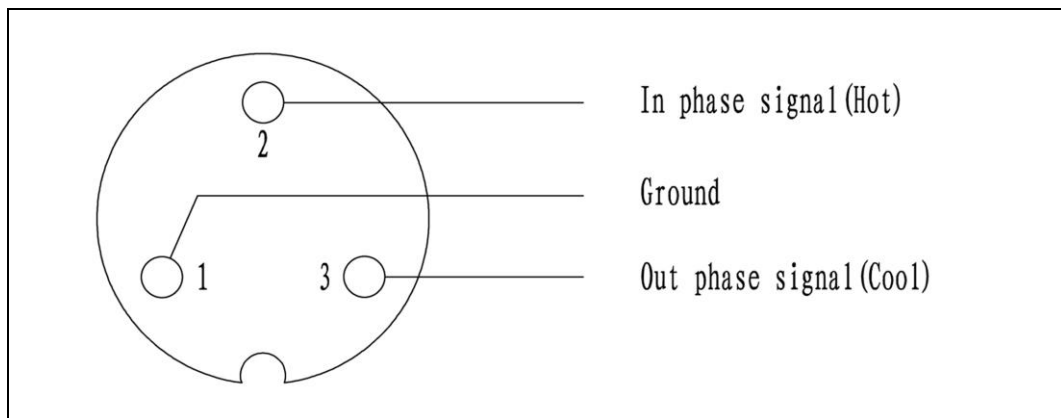
RS422 cables length can be up to 1000 m.

- **RS-422 9pins for external device:**

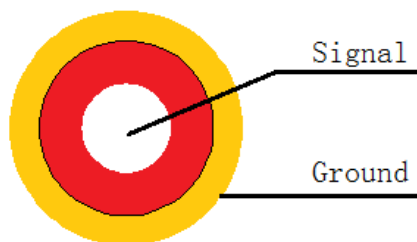


Cable between PC and RS-422 must be less than 1000m.

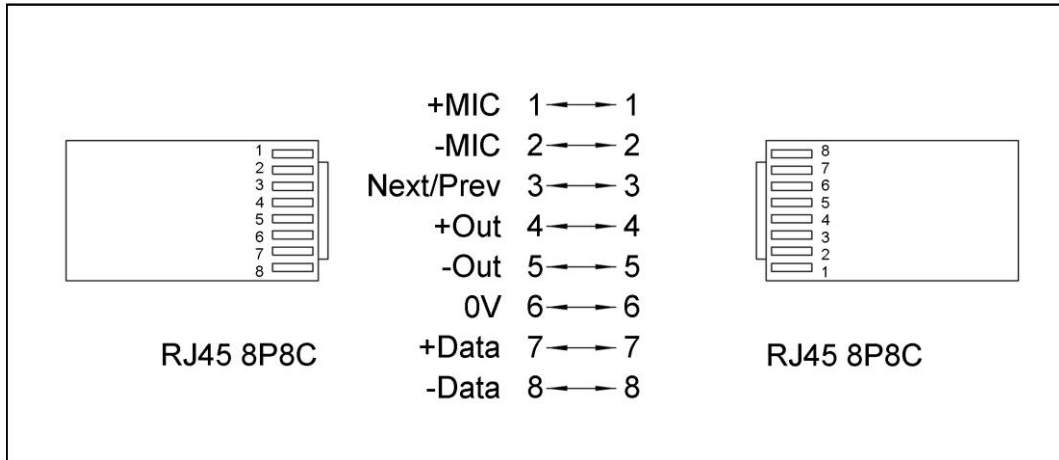
- **XLR balance Line in/ Line out:**



- **RCA of line output**



- **Link cable between two VZ 5600CU controller:**



Cable between two VZ 5600CU must be less than 250m.

11. Specifications of VZ 5600CU

Indicators and operating elements (front side)

Display with push buttons:	Monochrome, character LC display, 4 x 32 characters, white backlight; 7 push buttons to carry out system settings and selections.
Monitor socket	3.5mm jack socket to monitoring or recording.
Power switch:	1 rocker switch for power on/off.

Connectors and switches (rear side)

1 x 3-pin male power connector:

- Power connector for the connection of the device to the power supply system

2 x 15-pin female DSUB15 connector used for the following:

- Microphone/Interpreter bus
- Power supply for units
- Transmit audio and control signal

2 x 8-pin female RJ45 connectors used for the following:

- Connect next & previous central units for expand

1 x 9-pin female connector used for the following:

- RS232 port for external control

1 x 9-pin male connector used for the following:

- RS422 port for external control

6 x 2-pin female RCA connector used for the following:

- Export internal microphones signal
- Export translation channel 1/2 signal

1 x 3-pin XLR male connector used for the following:

- Export internal microphones signal

1 x 3-pin XLR female connector used for the following:

- Line input mixes with the internal microphone signal

General data

Microphone capacity:	100 units
Sampling frequency:	48kHz
Internal audio resolution:	24bit
Power requirement:	220VAC, 50/60Hz
Power consumption:	280W maximum
Frequency response:	Line in to Line out 30Hz~20kHz, -3dB Mic. in to Line out 100Hz~20kHz, -3dB Interpreter in to Line out 100Hz~20kHz, -3dB
Distortion:	< 0.1%
Dynamic range:	90dB
S/N ratio:	> 87dBA @ RMS, A-weighted
Temperature to guarantee specified performance:	5 °C to 45 °C (up to 95% humidity)
Storage temperature:	-20 °C to 70 °C (up to 99% humidity)
Dimensions:	483 x 331 x 88mm
Weight:	11.05kg
Color:	Black
Material:	Metal

Line Input:

Impedance:	40k Ω Balanced
Input level:	100mV~1.55V
Max. input level:	+20dBm (8V)
Connector:	3-pin XLR port

Microphone Output:

Impedance:	>600 Ω
Level:	Adjustable from 0dB to 43dB
Frequency:	100Hz~20kHz
S/N ratio:	>87dBA
Distortion:	< 0.1%
Connector:	3-pin XLR port 6 x 2-Pin RCA

12. System Components Description and Order Number

Model No.	Description	Products No.
VZ 5600CU	Conference system central controller, for 100 microphone and interpretation units	14 560 5600
VZ 5510CM	Portable Chairman discussion unit, w/ 2m cable, w/o gooseneck microphone	14 560 5510
VZ 5520DM	Portable Delegate discussion unit, w/ 2m cable, w/o gooseneck microphone	14 560 5520
VZ 5610CM	Flush Mount Chairman discussion unit, w/o gooseneck microphone	14 560 5610
VZ 5620DM	Flush Mount Delegate discussion unit, w/o gooseneck microphone	14 560 5620
VZ 5310IM	Portable Interpretation unit, w/o gooseneck microphone	14 560 5310
VZ 5310IM/F	Flush Mount Interpretation unit, w/o gooseneck microphone	14 560 5311
VZ 5140GM	Gooseneck microphone, 40cm length, w/ high intensity light ring, w/ round head	11 500 5140
VZ 5150GM	Gooseneck microphone, 50cm length, w/ high intensity light ring, w/ round head	11 500 5150
VZ 5312HP	Headphone set with Mic	14 560 5312
VZ 6370EP	Dynamic earphone	11 630 6370
VZ 6371EP	Stereo Earphone	11 630 6371
VZ 5680CM	Male connector, 15pins, pure copper with gold plated	14 560 5680
VZ 5681CF	Female connector, 15pins, pure copper with gold plated	14 560 5681
VZ 5690CB	Cable, round-per 100m, for VZ 5600 series	14 560 5690
VZ 5690-02CB	2m cable for extension, w/ 15P connector each side	14 560 5690-02
VZ 5690-05CB	5m cable for extension, w/ 15P connector each side	14 560 5690-05
VZ 5690-20CB	20m cable for extension, w/ 15P connector each side	14 560 5690-20