televic
conference

Confidea ©

Wired Conference System

Installation and User Manual

Table of Contents

Table of Contents **2**

Section 1 – General Information **7**

1. Copyright Statement **9**

2. Trademarks **10**

3. Safety Instructions **11**

3.1. Important safety instructions **11**
3.2. Power Connections **14**

4. Confidea System Information **15**

Section 2 – System Components **16**

5. Table Top Contribution units **17**

5.1. Introduction **17**
5.1.1. The delegate units 17

5.2. Functionality overview **18**
5.3. Controls and indicators **18**
5.4. Installation **25**
5.5. Maintenance **25**
5.5.1. General 25
5.5.2. Cleaning 25

5.6. Microphones **26**
5.6.1. Introduction 26
5.6.2. Electrical and acoustic properties 26
5.6.3. Microphone connector 26
5.6.4. Operation 27
5.6.5. Installation and handling 27

6. Flushmount Contribution units **28**

6.1. Introduction **28**
6.2. Controls and indicators **28**
6.3. Installation **33**
6.4. Maintenance **38**
6.4.1. General 38

6.4.2. Cleaning 38

7. Interpreter desk 39

7.1. Introduction 39
7.2. Controls and indicators 39
7.3. Maintenance 41
7.3.1. General 41
7.3.2. Cleaning 41

8. Central Control unit 42

8.1. Introduction 42
8.2. Control and indicators 42
8.3. Additional Licenses 45
8.4. Installation 45
8.5. External connections 45
8.5.1. Power Supply 45
8.5.2. XLR IN Connection 45
8.5.3. XLR OUT Connection 45
8.5.4. Sub D 15 OUT connection 46
8.5.5. RS232 Connection 46

8.6. Repeater for the system 48
8.7. Menu structure 49

9. Analog Output Panel 75

9.1. Introduction 75
9.2. Controls and indicators 75
9.3. Installation 77
9.4. Configuration 77
9.5. Remote Control 79

10. System cables 80

11. Software Suite 80

Section 3 – System Design 83

12. Conference network setup 84

12.1. Interconnecting units 84
12.1.1. Confidea wired 84
12.1.2. Flushmount panels 84
12.1.3. Interpreter unit 84

12.2. Connection to the central unit 85
12.2.1. General setup 85
12.2.2. Dual branch Redundancy 86

12.3. Connecting the PC to the central unit 87
12.3.1. Examples of connections 88
12.3.2. Confidea coupled (wired + wireless) 90
90

12.4. Master slave configuration 91
12.5. Additional equipment for the conference system 92
12.5.1. Powering the Confidea Cu 92

Section 4 – The Menu explained 93

13. Root Menu ..... Error! Bookmark not defined.

14. Conference menu 95

14.1. Initialization 95
14.1.1. Automatic init 95
14.1.2. Manual init 95

14.2. Operating Mode 95
14.3. Microphone Limit 96
14.4. Loudspeaker 96
14.5. Microphones 97
14.6. Chairman 97
14.7. Reset 98
14.8. Options 98

15. Interpretation menu 99

15.1. Configuration 99
15.2. Booth Configuration 99
15.3. Initialization 100
15.4. Reset 101
15.5. Options 101

16. Auxiliary Menu 103

16.1. Outputs 103
16.2. Inputs 103
16.3. Remote Conferencing 103
16.4. External Equalizer 104

17. System Menu 105

17.1. Diagnostics 105
17.2. Camera Control 105
17.3. Control Panel 105
17.4. Ambient Sound 105
17.5. Version 105

18. Language Menu 105

19. License Menu 105

Section 5 – Appendix 107

20. Default Settings 109

21. Camera Control Protocol 112

21.1. Communication 112
21.2. Commands 112
21.3. Examples 113

22. Control Panel Protocol 114

22.1. Communication 114
22.2. Commands 114
22.3. Examples 116

Section 1 – General Information

1. Copyright Statement

2. Trademarks

All terms mentioned in this manual that are known to be trademarks or service marks have been appropriately capitalized. Televic Conference NV cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

3. Safety Instructions

The Confidea Conference system is state of the art and has been designed to meet quality. Nevertheless, the individual components of the conference system can cause danger for persons and material assets if

- the conference system is not used as intended,
- the conference system is set up by personnel not familiar with the safety regulations,
- the conference system is converted or altered incorrectly,
- The safety instructions are not observed.

3.1. Important safety instructions

1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

1. Retain Instructions

The safety and operating instructions should be retained for future reference.

2. Heed Warnings

All warnings on the product and the operating instructions should be adhered to.

3. Follow Instructions

All instructions for installation or operating / use should be followed.

4. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

5. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

6. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

7. Attachments

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

8. Water and Moisture

Do not use this product near water or in a moistures environment - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool, in an unprotected outdoor installation; and the like.

9. Accessories

Only use attachments/accessories specified by the manufacturer. Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

10. Moving

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven

surfaces may cause the product and cart combination to overturn.

11. Power Sources

This product 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 to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

12. 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. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.

13. Grounding or Polarization

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 the outlet, consult an electrician for replacement of the obsolete outlet.

14. Power-Cord Protection

Power-supply cords should be routed to that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug, convenience receptacles, and the point where they exit from the product.

15. Lightning

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

Not applicable when special functions are to be maintained, such as evacuation systems

16. Overloading

Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.

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 that could result in a fire or electric shock. Never spill liquid of any kind on the product.

18. Inflammable and Explosive Substance

Avoid using this product where there are gases, and also where there are inflammable and explosive substances in the immediate vicinity.

19. Heavy Shock or Vibration

When carrying this product around, do not subject the product to heavy shock or vibration.

20. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

21. Damage Requiring Service

Unplug this product from the wall 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 by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

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 have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety Check

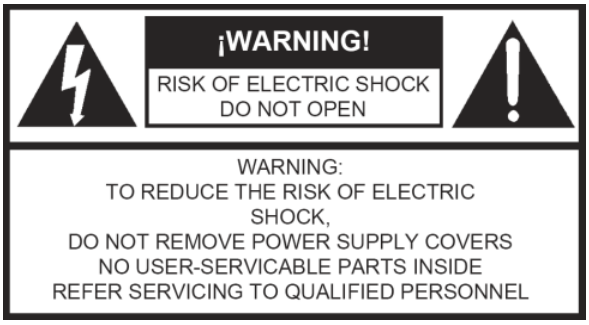
Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

24. Coax Grounding

If an outside cable system is connected to the apparatus, be sure the cable system is grounded. U.S.A. models only: Section 810 of the National Electrical Code, ANSI/NFPA No.70-1981, provides information with respect to proper grounding of the mount and supporting structure, grounding of the coax to a discharge apparatus, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

3.2. Power Connections

For permanently connected equipment, a readily accessible disconnect device shall be incorporated in the fixed wiring; 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.

The lightning flash with an arrowhead symbol, with an equilateral triangle, is intended to alert the user to the presence of un-insulated 'dangerous voltage' within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Warning:
To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Do not open the cabinet; refer servicing to qualified personnel only.

Warning:
To prevent electric shock, do not use this (polarized) plug with an extension cord receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

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

Attention:
Equipment with or without ON/OFF switches have power supplied to the equipment whenever the power cord is inserted into the power source; however, the equipment is operational only when the ON/OFF switch is in the ON position. The power cord is the main power disconnect for all equipment.

4. Confidea System Information

This manual describes the wired part of the Confidea range:

- Confidea CU : Central control unit
- Confidea –L : Mobile Table top unit
- Integrated flushmount panels
- Interpreter desks

The central unit serves small to medium sized conference rooms and offers a wide range of connectivity to integrate with other audiovisual equipment.

The system can work in a standalone mode or with additional software suite for enhanced setup and control.

The central unit also provides an extended set of commands to integrate other AV solutions as e.g. camera control systems, room management systems, recording systems, …

In terms of contribution units Confidea offers a wide range of products to serve applications going from discussion over voting to simultaneous interpretation, this as a table top or flush mount solution.

The wireless Confidea product range is described in a separate manual. However this manual describes how to connect the Confidea wireless range to the Confidea central control unit.

Section 2 – System Components

5. Table Top Contribution units

5.1. Introduction

The contribution units consist of Delegate and Chairman units. Both are used for speech reinforcement in a conference room. The chairman units are used to guide and control an ongoing discussion.

The units can be divided into three categories:

- Discussion :
  Confidea L-DD (Figure 5.1), L-CD(Figure 5.2), L-2D2D (Figure 5.3: Confidea L-2D2D)
- Voting:
  Confidea L-DV (Figure 5.4), L-CV (Figure 5.5)
- Interpretation :
  Confidea L-DI (Figure 5.6), L-CI (Figure 5.7), L-2D2I (Figure 5.8) , L-DIV (Figure 5.9), L-CIV (Figure 5.10)

5.1.1. The delegate units.

The delegate units feature a built-in loudspeaker, allowing the participant to directly hear all audio information, e.g. speeches, presentations or any other audio material. This loudspeaker system ensures excellent sound quality at a comfortable volume throughout the entire conference room.

The delegate unit's electret microphone transmits every word in excellent audio quality over the system. The red signal ring on the microphone serves as an indicator of who is currently occupying the floor (when the red light is on).

In configurations with voting units, the conference participants can participate in voting sessions.

The delegate units can range from the most basic units to delegate units intended for a chairman with options like voting, interpreter channel selection and an Oled display. All the different delegate units will be presented in the next chapter.

The units are connected in series. One cable branch can comprise up to 20 conference units. The 6 ports at the back of the central unit can each connect a branch of delegate units. Up to 120 delegate units can thus be connected to one central unit. And up to 1024 delegate units can be set up through coupled central units.

All the different delegate units will be presented in the next chapter.

5.2. Functionality overview

	1 delegate per unit (Individual use)	2 delegates per unit (Twin use)	Chairman
Discussion only	Confidea L-DD	Confidea L-2D2D	Confidea L-CD Prior / next buttons
Discussion & Voting	Confidea L-DV 3 voting buttons		Confidea L-CV 3 voting buttons Prior / Next buttons Start/stop vote buttons
Discussion & Language Distribution	Confidea L-DI Channel selector	Confidea L-2D2I 2 channel selector	Confidea L-CI Prior / Next buttons Channel selector
Disussion, Voting & Language Distribution	Confidea L-DIV 5 voting buttons Channel Selector		Confidea L-CIV 5 voting buttons Prior / Next buttons Channel Selector

5.3. Controls and indicators

The Confidea units have the following features:

1. **Microphone connector**:
   Connection of a microphone to the wireless unit.
2. **Microphone button**:
   Activation/deactivation of the microphone. Indication LEDs show the status of the microphone. (red : active, green : request)
3. **Loudspeaker**:
   Distributes the floor channel. Mutes in case microphone is active.
4. **Headphone connectors:**
   Connection of headphone to the wireless unit. Mono- and stereo headphones can be used.
5. **Volume buttons:**
   Change the volume level of the headphones.
6. **Voting buttons:**
   Each voting button has a blue LED indicator.
7. **Information display:**
   Indication of voting, volume and channel information.
8. **Channel selection buttons:**
   Changes the audio channel sent to the headphones. Each button has a blue indication LED. Pressing these buttons affects the information display.
9. **Voting control buttons:**
   Used by the chairman to control a voting session. (start / pause / stop)
10. **PRIOR button:**
    Short press : temporarily deactivates the microphone of all active units.
    Long press : permanently deactivates the microphone of all active units.
11. **Next button:**
    Grants the floor to the next delegate in the waiting list.
12. **System volume control:**
    Adjust system volume by holding the button and pressing the volume buttons.
13. **Microphone status LEDs**
14. **RJ45 bus connections**
    Due to the auto port sensing there is no dedicated IN and OUT port.

Figure 5.1: Confidea L-DD

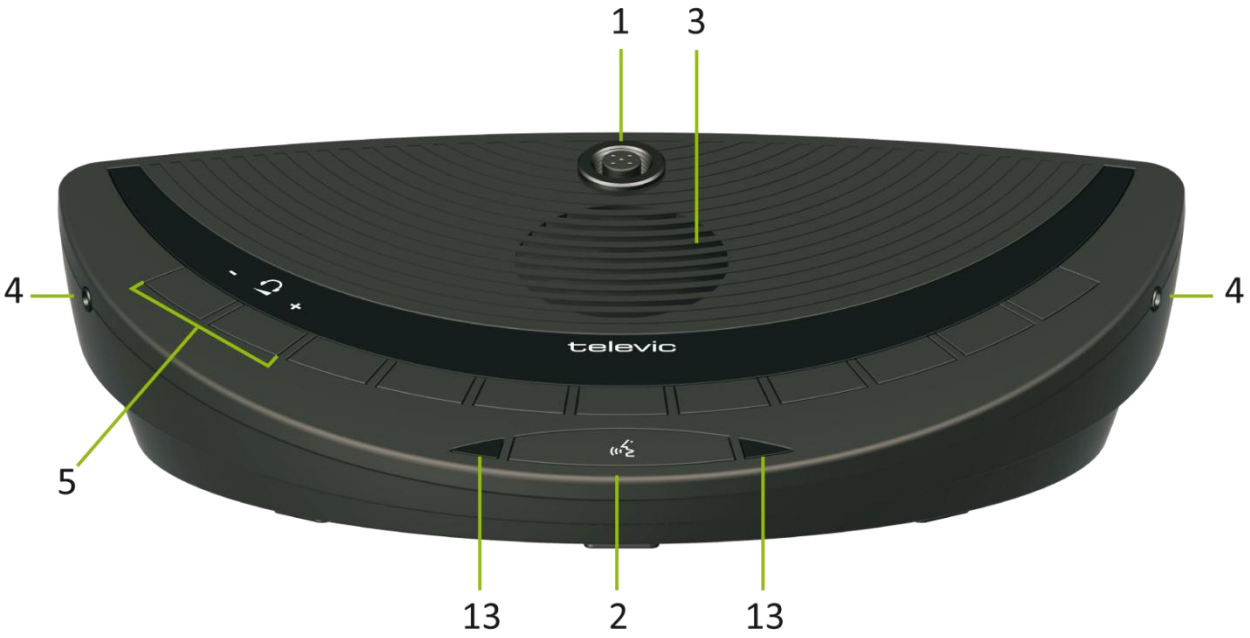


Figure 5.2: Confidea L-CD

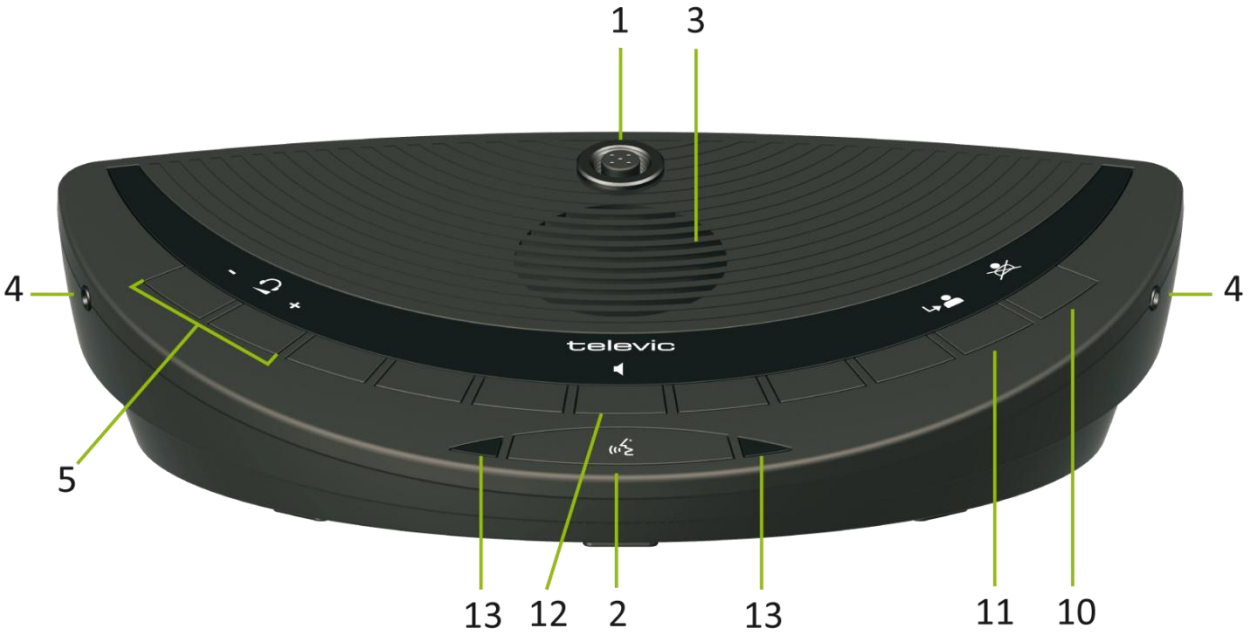


Figure 5.3: Confidea L-2D2D

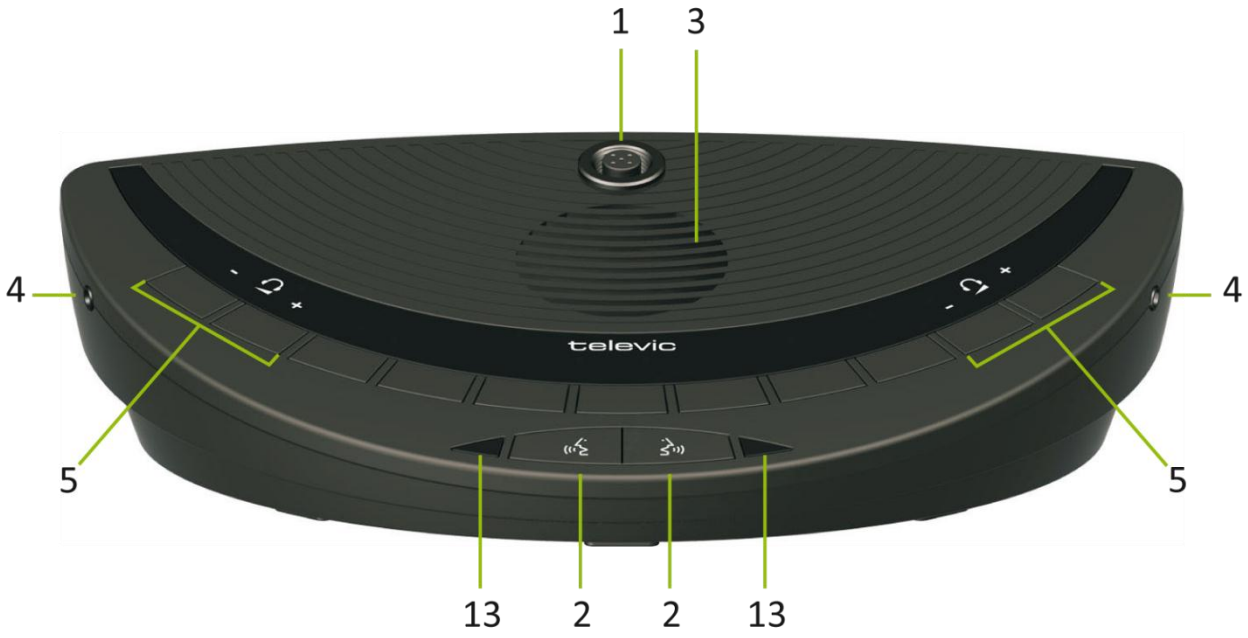


Figure 5.4: Confidea L-DV

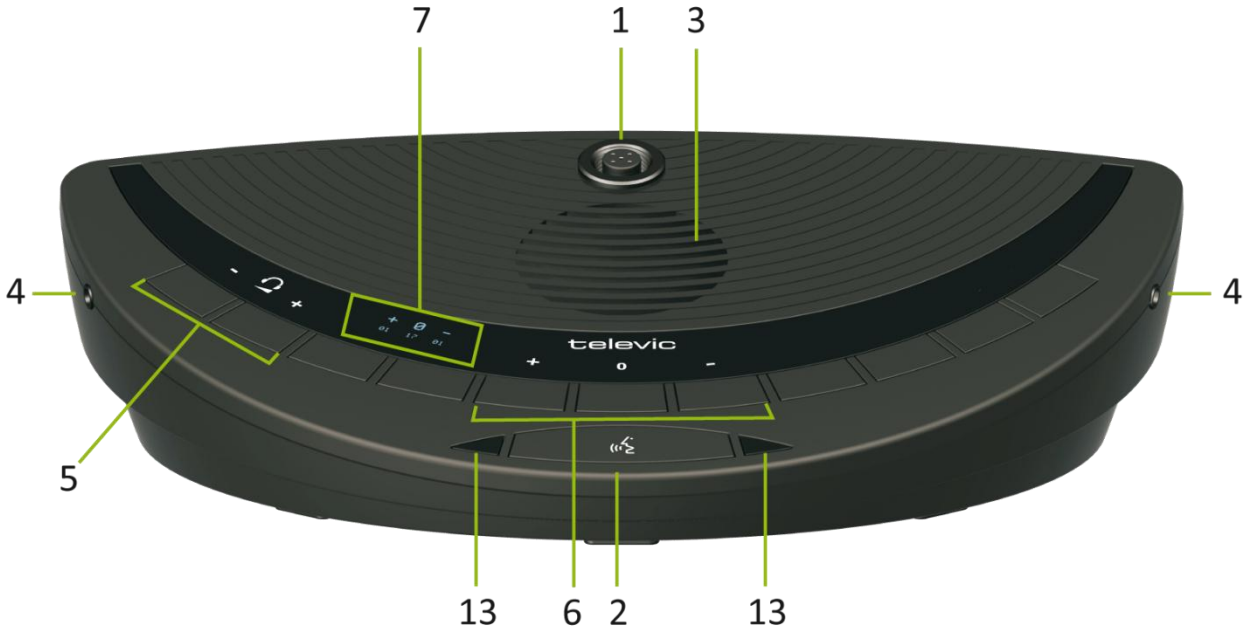


Figure 5.5: Confidea L-CV

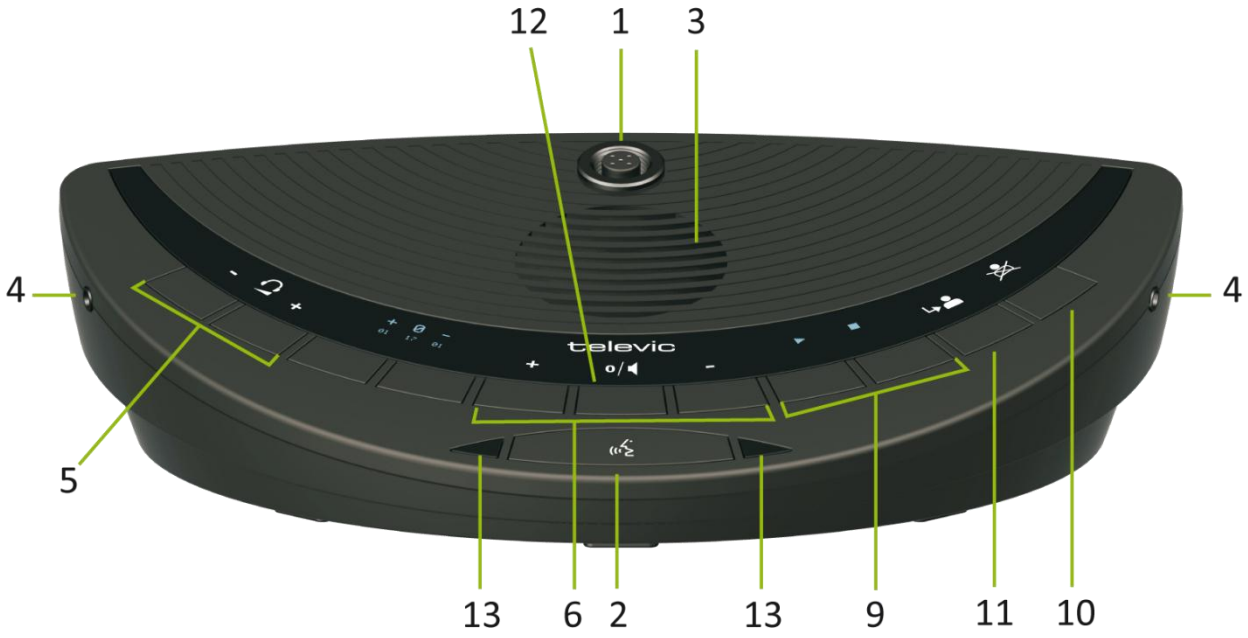


Figure 5.6: Confidea L-DI

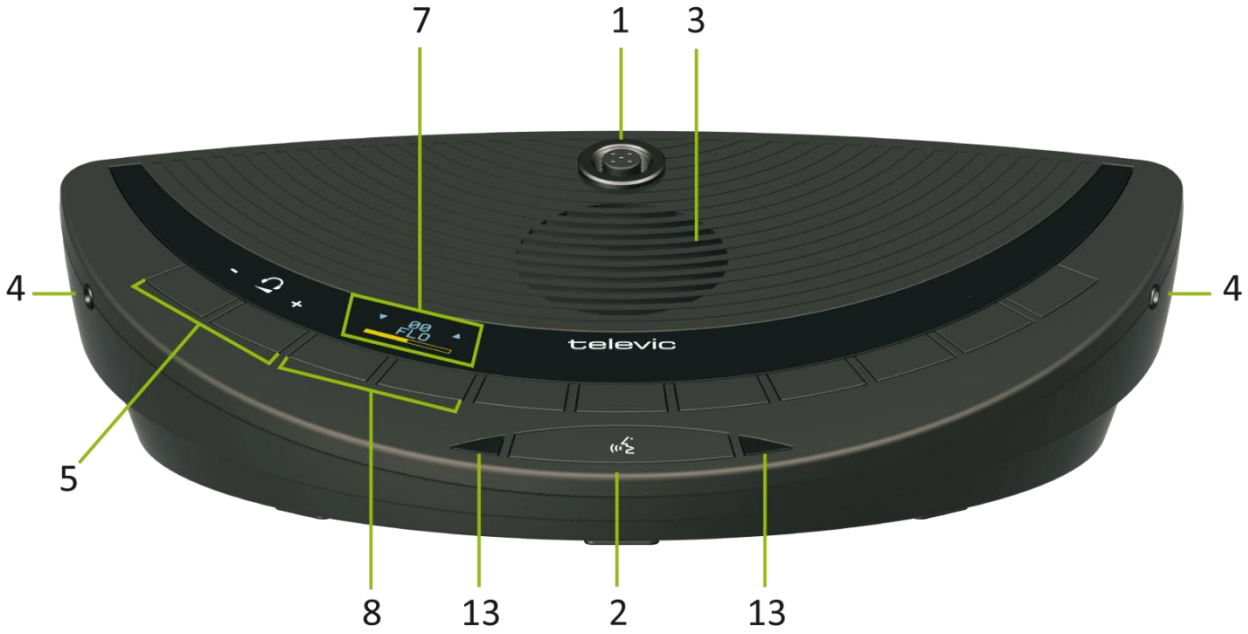


Figure 5.7: Confidea L-CI

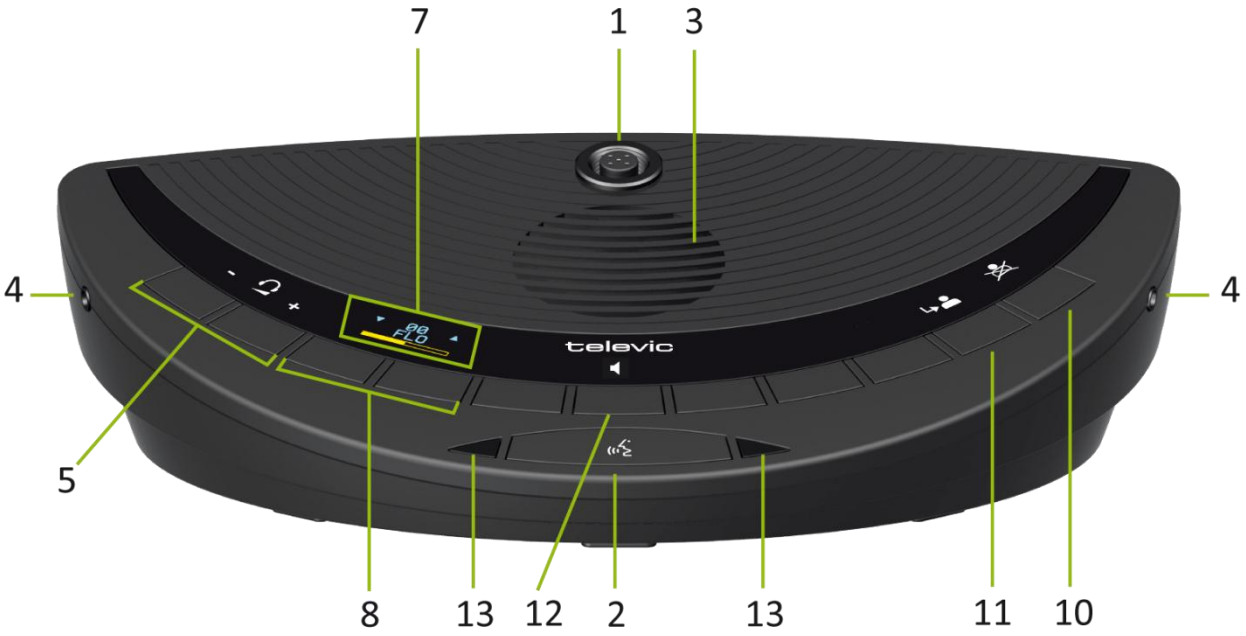


Figure 5.8: Confidea L-2D2I

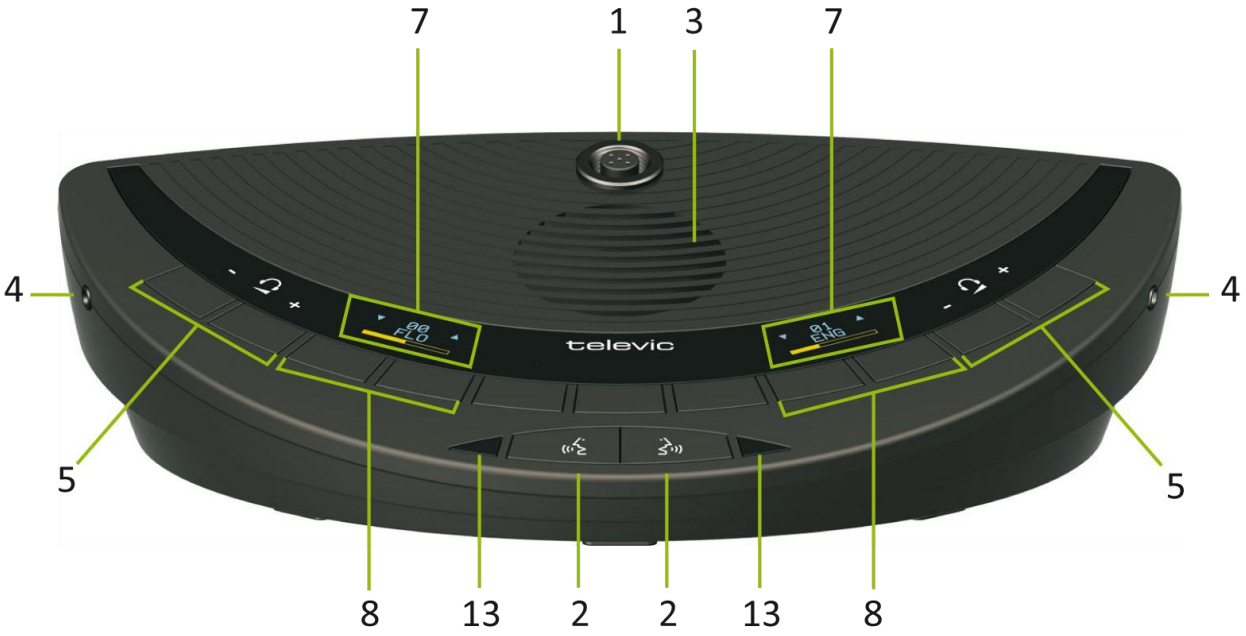


Figure 5.9: Confidea L-DIV

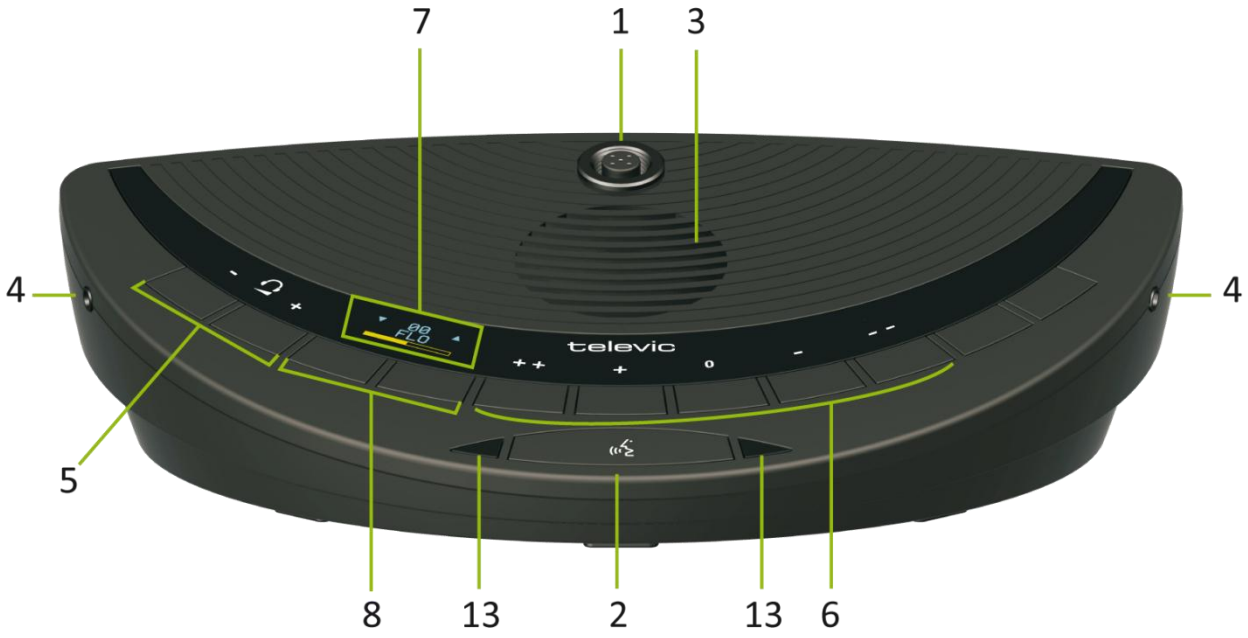


Figure 5.10: Confidea L-CIV

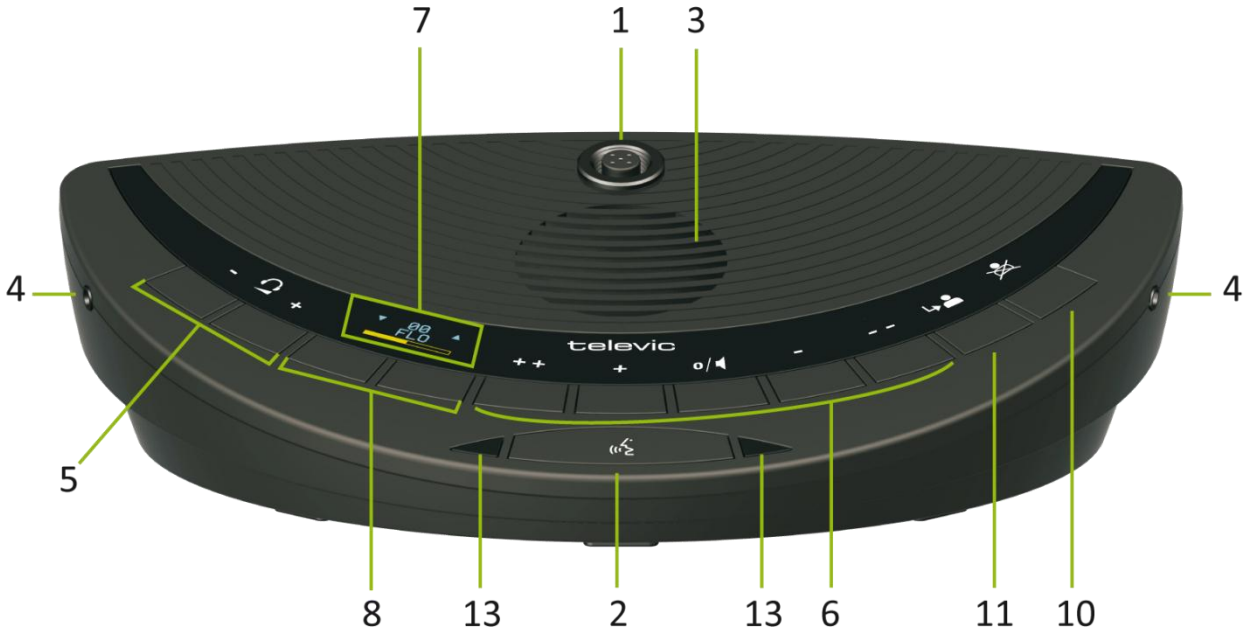


Figure 5.11: RJ45 connections

5.4. Installation

In order to use the Confidea units, the microphone need to be installed.

For instructions, see the microphone installation

Make sure that the units are not positioned too close to each other. It is recommended to keep a min. distance of 1m between the units to prevent howling.

The recommended speaking distance for people to speak to the microphone is between 20 to 40 cm.

5.5. Maintenance

5.5.1. General

Caution:
Do not put any objects on top of the units. Object falling through the holes of the unit can cause damage.

Caution:
Do not install the units in a location near heat sources as radiators, air ducts. or direct sunlight.

Caution:
Make sure the units are not exposed to excessive dust, humidity, mechanical vibration or shock.

5.5.2. Cleaning

Caution:
Do not use alcohol, ammonia or petroleum solvents or abrasive cleaners to clean the units.

To keep its original condition it is advised to periodically clean the unit:

- Use a clean soft cloth that is not fully moist.
- Make sure the device is completely dry before usage.

5.6. Microphones

5.6.1. Introduction

The Confidea-MIC38SL (38 cm) pluggable microphone is used with the different delegate- and chairman units. This microphone has a unidirectional response for optimum performance even in noisy conditions, and has a very low susceptibility to RF-interference from mobile phones.

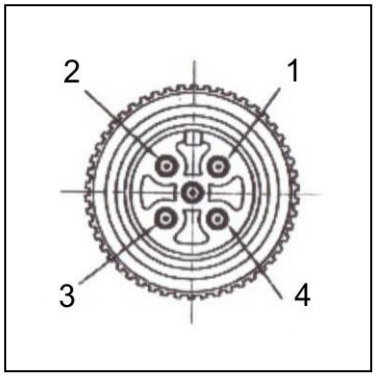
5.6.2. Electrical and acoustic properties

Table 5.1: Microphone characteristics

Transducer type	Back electret (condenser)
Operating principle	Pressure gradient
Polar pattern	Uni-directional, cardioïd
Frequency response	50 Hz – 16000 Hz
Nominal impedance	1kOhm (at 1 kHz, drop resistance = 1k2, Vdd = 3.3VDC)
Load impedance	> 5kOhm
Max.SPL at 1 kHz	120 dB SPL
Equivalent sound pressure level	< 25 dB(A)
Free field sensitivity	7mV/Pa, +/- 3 dB at 1 kHz or (-43dB, 0dB=1V/Pa at 1kHz)
Power supply	3.3V DC, 0.5 mA
Consumption	0.5 mA (without LED ring); max. 25 mA (with illuminated ring)

5.6.3. Microphone connector

Figure 5.4: Connector pin layout (bottom view)



- pin 1 : microphone GND
- pin 2 : microphone signal
- pin 3 : unused
- pin 4 : LED +
- pin 5 : LED -

5.6.4. Operation

The microphone contains the following elements (refer to Figure 5.5):

1. *Indicator ring:* shows the status of the microphone
2. *Union nut:* attaches the pluggable microphone to the unit
3. *Microphone plug:* connects the microphone to the unit

Figure 5.5: Microphone

The color of the microphone indicator ring shows the status of the microphone (refer to Table 5.2: LED ring status).

Table 5.2: LED ring status

Color	Condition
Red (on)	Microphone active
Red (flash)	Last minute of speech time (if set via software) or Speech request (if set via software)

5.6.5. Installation and handling

The pluggable microphone has a screw connection. For mounting, plug and fasten the microphone into the unit.

Caution:
Do not force the microphone screw thread while mounting the microphone on the unit.
This can cause permanent damage to the microphone and receptacle connector on the Confidea unit.

6. Flushmount Contribution units

6.1. Introduction

In case the conference equipment needs to be built into a table, the integrated panels are a great solution.

There are several models serving different applications:

- Discussion :
  FD/M (Figure 6.1 : FD/M)
  FC/M (Figure 6.2 :FC/M)
- Voting + Badge:
  FD/MV5B (Figure 6.3 : FD/MV5B)
  FC/MV5B (Figure 6.4 : FC/MV5B)
- Interpretation + Voting:
  FD/MV5CS (Figure 6.5 : FD/MV5CS)
  FC/MV5CS (Figure 6.6 : FC/MV5CS)

6.2. Controls and indicators

The integrated flush mount units have the following features:

1. **Microphone**:
   Fixed interference free microphone of 38 cm.
2. **Microphone button**:
   Activation/deactivation of the microphone. Indication LEDs show the status of the microphone. (red : active, green : request)
3. **Loudspeaker**:
   Distributes the floor channel. Mutes in case microphone is active.
4. **Headphone connectors:**
   Connection of headphone to the wireless unit. Mono- and stereo headphones can be used.
5. **Volume buttons:**
   Change the volume level of the headphones.
6. **Voting buttons:**
   Each voting button has a blue LED indicator.
7. **Information display:**
   Indication of volume and channel information.
8. **Channel selection buttons:**
   Changes the audio channel sent to the headphones. Pressing these buttons affects the information display.
9. **PRIOR button:**
   Short press: temporarily deactivates the microphone of all active units.
   Long press: permanently deactivates the microphone of all active units.
10. **Next button:**
    Grants the floor to the next delegate in the waiting list.
11. **Microphone request status LED**
12. **Microphone status LED**
13. **Chip card inserted status LED**
14. **Chip card slot**
15. **RJ45 bus connections**
    Dedicated IN and OUT port!

Figure 6.1 : FD/M

Figure 6.2 :FC/M

Figure 6.3 : FD/MV5B

Figure 6.4 : FC/MV5B

Figure 6.5 : FD/MV5CS

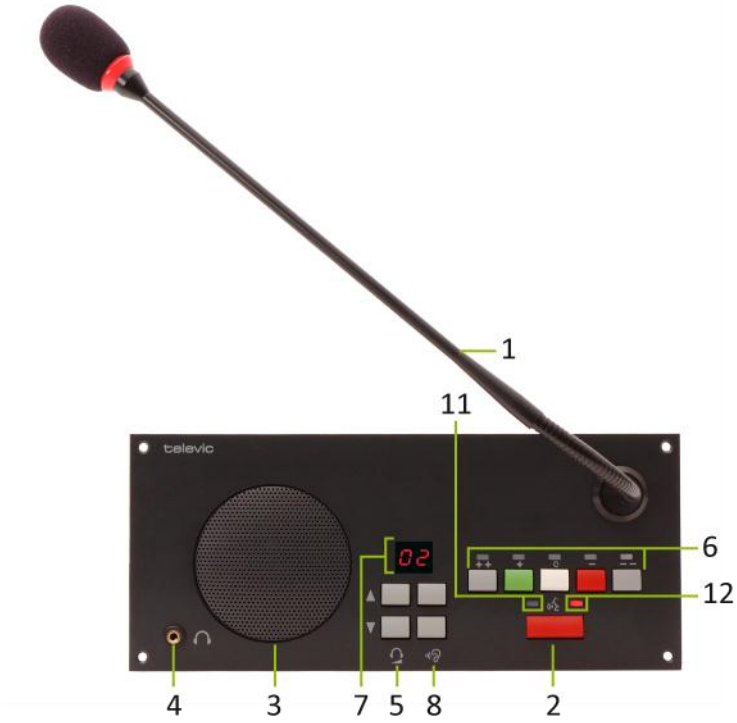


Figure 6.6 : FC/MV5CS

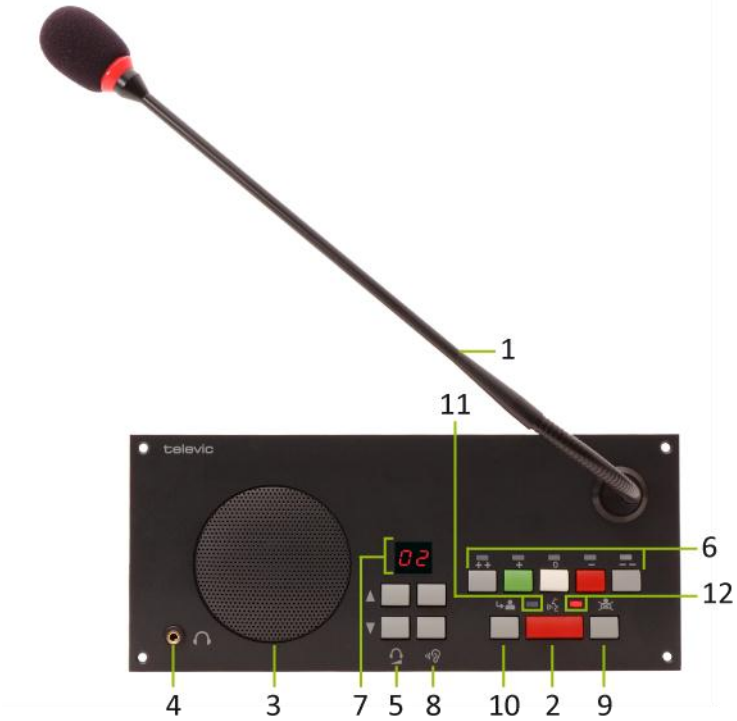


Figure 6.7 : FD/MV5BCS

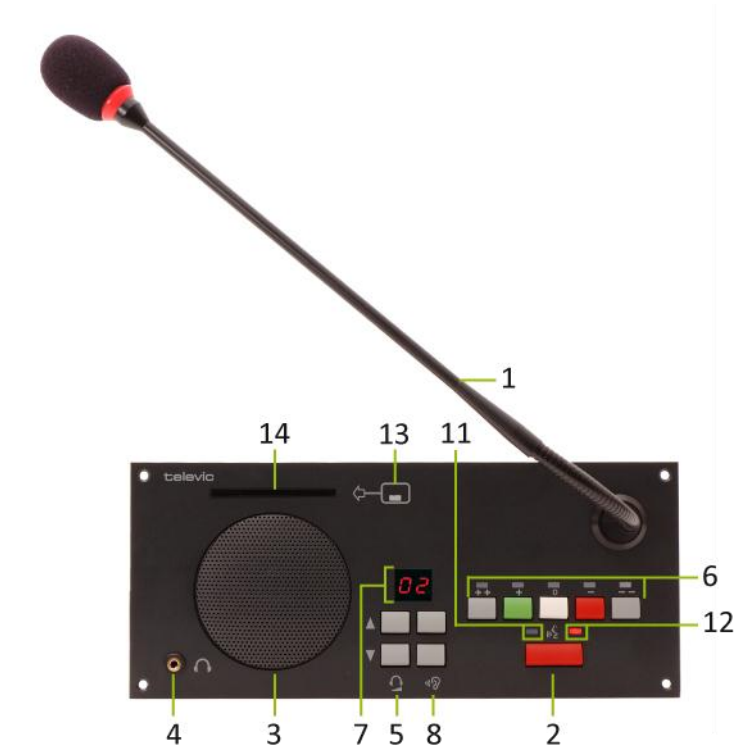
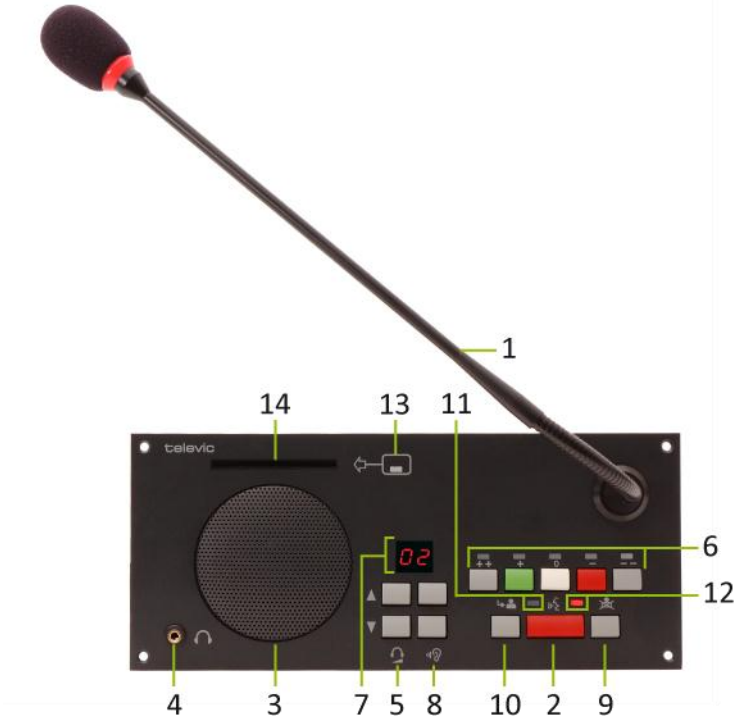


Figure 6.8 : FC/MV5BCS



6.3. Installation

The integrated panels are flush mount panels and need to be integrated in conference furniture.

The cut-out of the different models can be found below.

FD/M and FC/M
Error! Not a valid bookmark self-reference.

FD/MV5B and FC/MV5B
Figure 6.10 : Dimensions and cut-out FD/MV5B and FC/MV5B

FD/MV5CS and FC/MV5CS
Figure 6.11 : Dimensions and cut-out FD/MV5CS and FC/MV5CS

FD/MV5BCS and FC/MV5BCS
Figure 6.12 : Dimensions and cut-out FD/MV5BCS and FC/MV5BCS

Make sure to enter the panels straight into the cut-out of the table.

Figure 6.9 : Dimensions and cut-out FD/M and FC/M

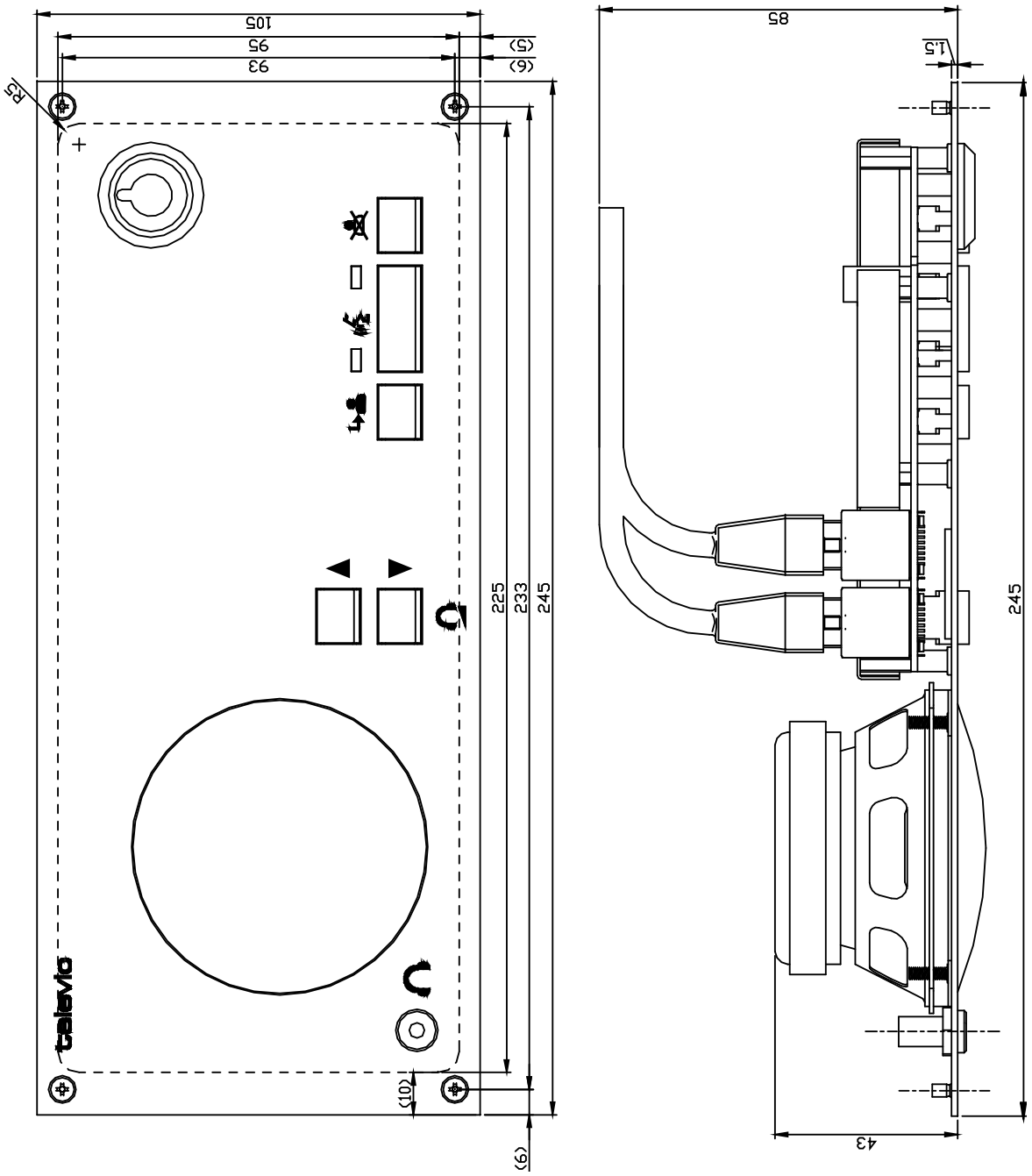


Figure 6.10 : Dimensions and cut-out FD/MV5B and FC/MV5B

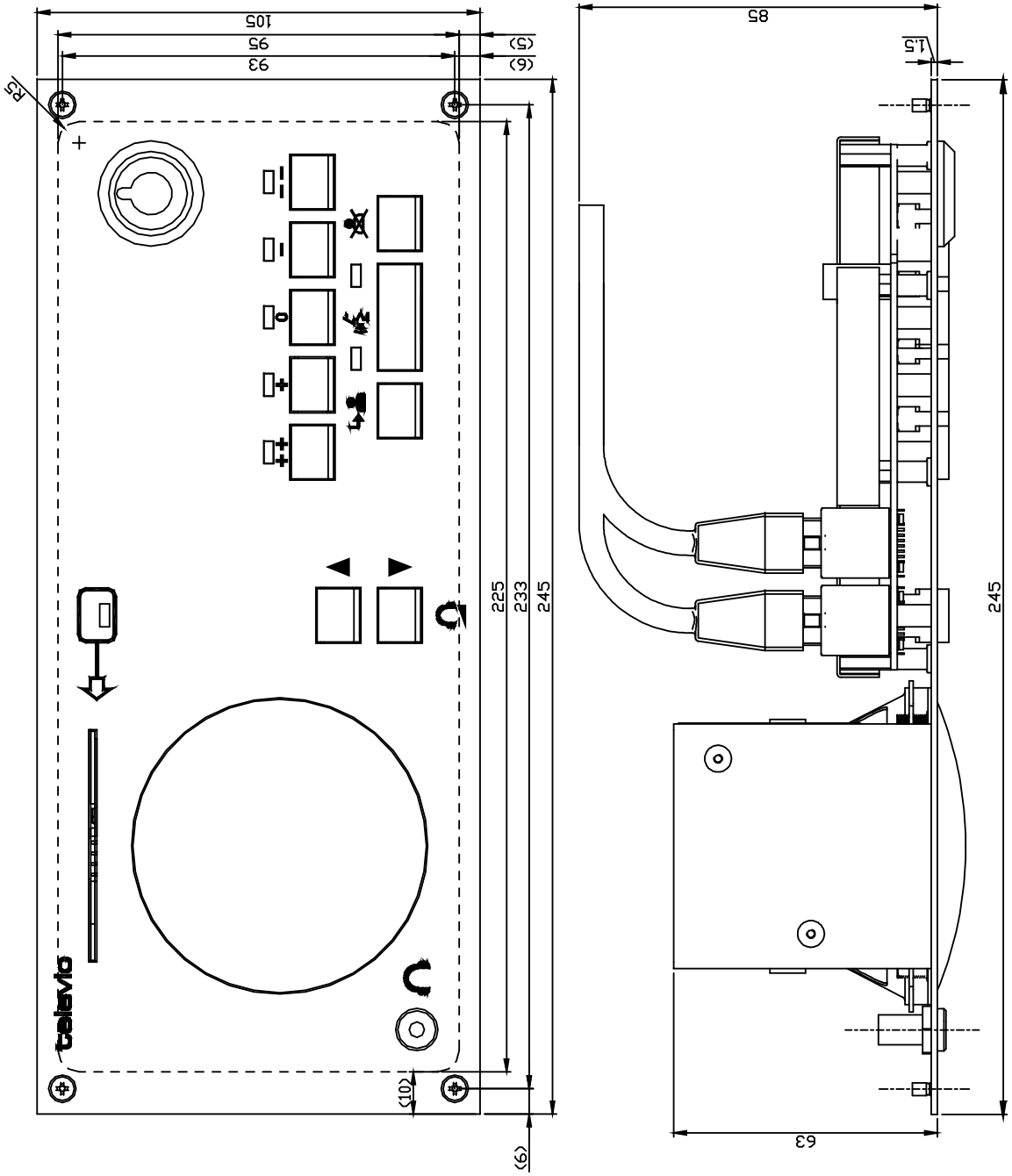


Figure 6.11 : Dimensions and cut-out FD/MV5CS and FC/MV5CS

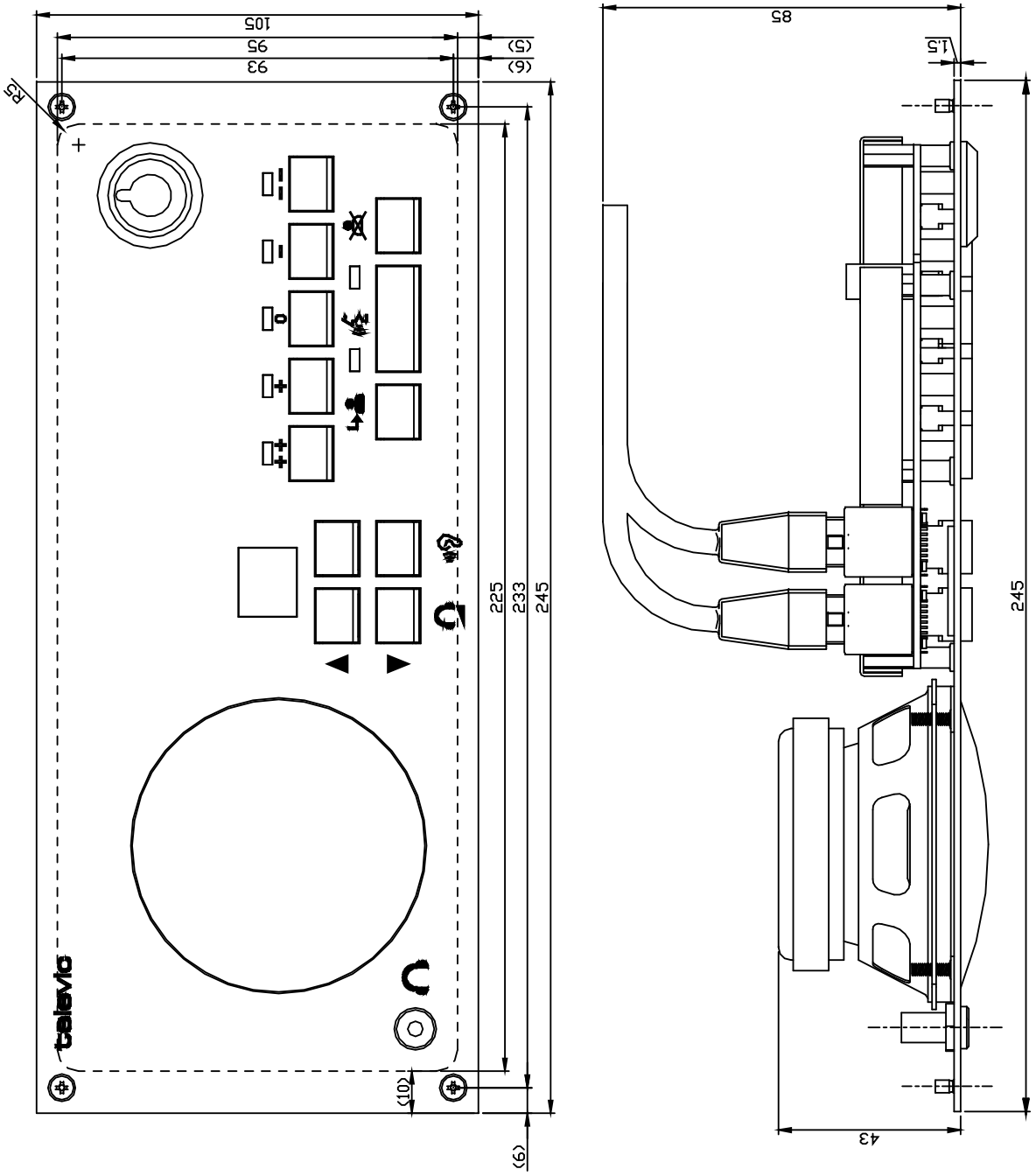
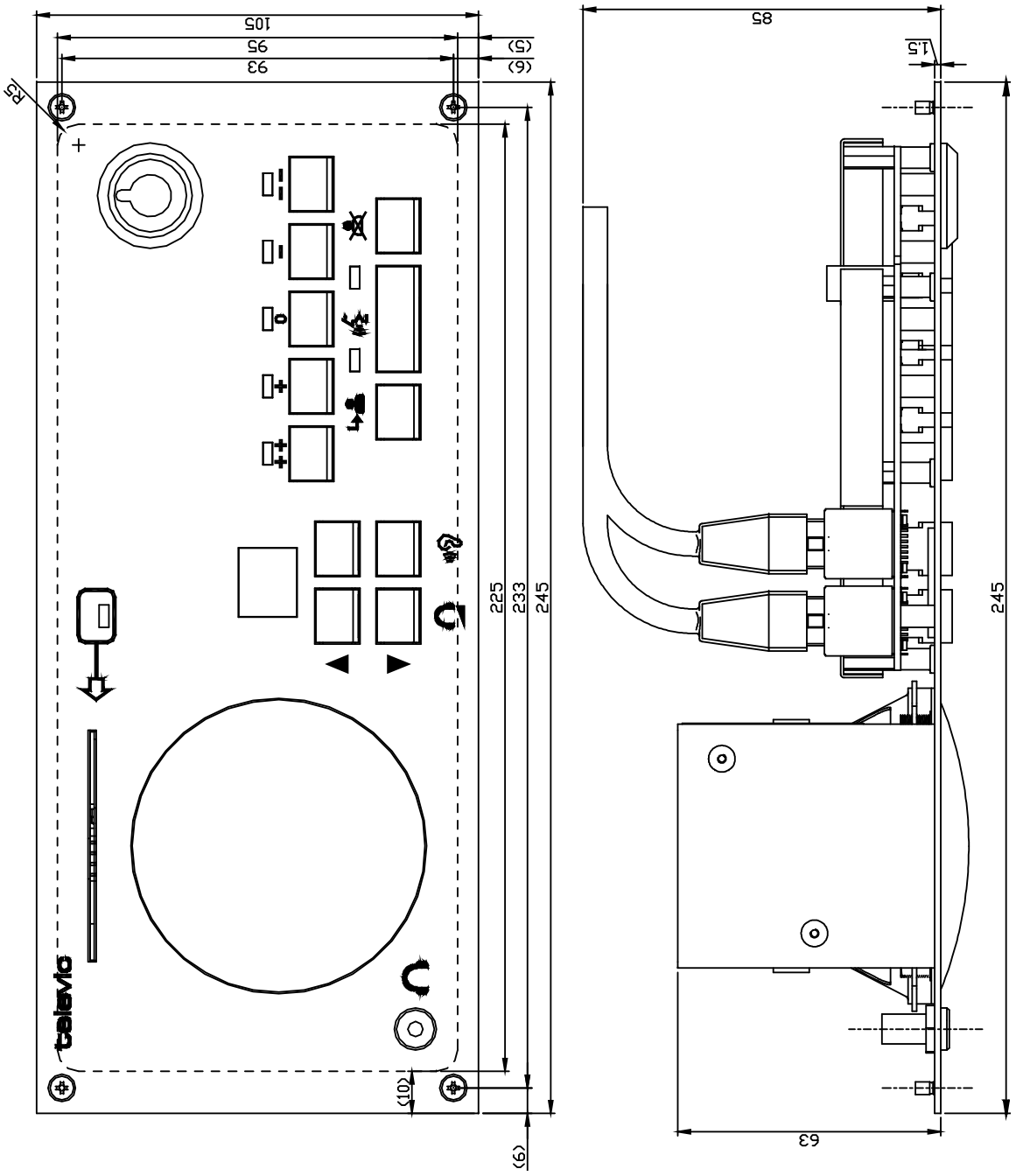


Figure 6.12 : Dimensions and cut-out FD/MV5BCS and FC/MV5BCS



6.4. Maintenance

6.4.1. General

Caution:

Do not put any objects on top of the units. Object falling through the holes of the unit can cause damage.

Caution:

Do not install the units in a location near heat sources as radiators, air ducts. or direct sunlight.

Caution:

Make sure the units are not exposed to excessive dust, humidity, mechanical vibration or shock.

6.4.2. Cleaning

Caution:

Do not use alcohol, ammonia or petroleum solvents or abrasive cleaners to clean the units.

To keep its original condition it is advised to periodically clean the unit:

- Use a clean soft cloth that is not fully moist.
- Make sure the device is completely dry before usage.

7. Interpreter desk

7.1. Introduction

In cases where interpretation is required one or several interpreter desks will be required in the system.

The interpreter unit has a different design as a delegate unit. Next to the quality microphone and the headphone output it has three knobs for adjusting the volume, treble and bass levels of the incoming speech.

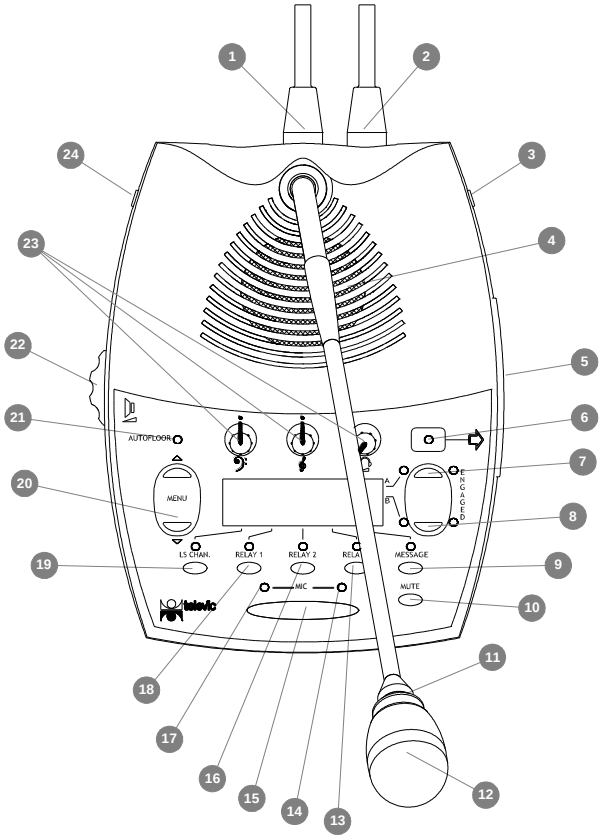
The badge can contain all relevant information for each interpreter so that each interpreter can transfer his settings to a new interpreter unit.

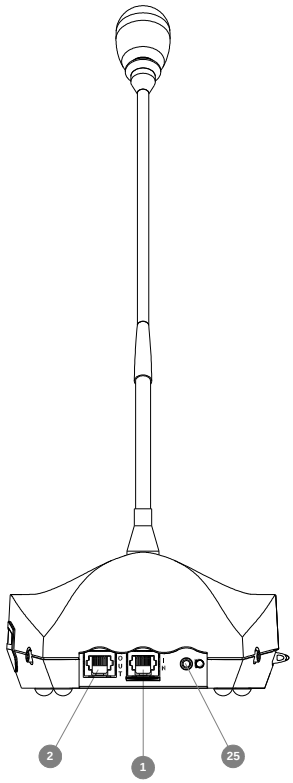
An extended amount of functionality is made available on the interpreter unit by the easy to use interface knobs and buttons and the LCD display. Every aspect of this functionality will be explained in the next chapter.

7.2. Controls and indicators

The interpreter desks have the following features:

1. IN connector
2. OUT connector
3. Headphone connection, 3,5mm jack
4. Loudspeaker
5. Badge reader
6. Badge LED
7. A channel button
8. B channel button
9. Message button
10. Mute button
11. Red signal ring
12. Microphone
13. Relay button 3
14. Microphone on LED
15. Microphone button
16. Relay button 2
17. Request to speak LED
18. Relay button 1
19. Loudspeaker channel
20. Menu buttons
21. Autofloor LED
22. Loudspeaker volume control
23. Headphone audio level control
24. Headphone connection, 3,5mm jack
25. Microphone connection for headset, 3,5mm jack


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
AUTOFLOOR
MENU
LS CHAN.
RELAY 1
RELAY 2
MESSAGE
MUTE
MIC


2
1
25

7.3. Maintenance

7.3.1. General

Caution:

Do not put any objects on top of the units. Object falling through the holes of the unit can cause damage.

Caution:

Do not install the units in a location near heat sources as radiators, air ducts. or direct sunlight.

Caution:

Make sure the units are not exposed to excessive dust, humidity, mechanical vibration or shock.

7.3.2. Cleaning

Caution:

Do not use alcohol, ammonia or petroleum solvents or abrasive cleaners to clean the units.

To keep its original condition it is advised to periodically clean the unit:

- Use a clean soft cloth that is not fully moist.
- Make sure the device is completely dry before usage.

8. Central Control unit

8.1. Introduction

The Confidea CU is the heart of the system. It controls all delegate units and can interconnect to other systems either via the external audio connections or control ports (camera control, control panel)

The system has a built in power supply to drive 120 units and can operate in a standalone mode. Initialization and configuration can be done via the integrated menu. Optionally, this can also be done via additional software suite.

In case a larger number of units are required the systems can be extended with multiple control units in a master/slave configuration. The maximum number of units is 1024.

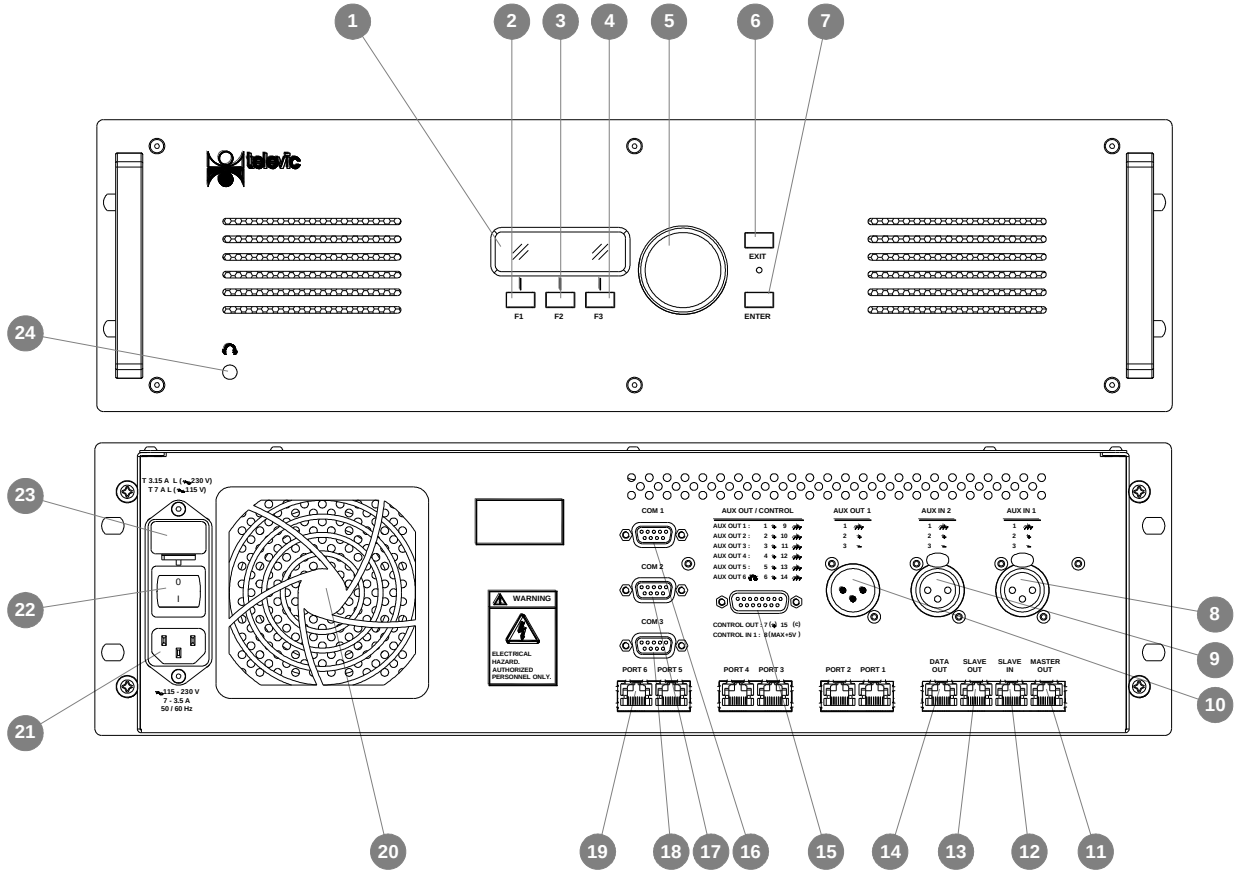
The central control units can be used for any type of application, from discussion over voting to simultaneous interpretation. The control unit supports 4 languages as a standard, but can go up to 28 languages via additional licenses (Floor +8, Floor + 28).

8.2. Control and indicators

The control unit has the following features:

1. LCD display
2. F1 menu button
3. F2 menu button
4. F3 menu button
5. Scroll wheel
6. EXIT menu button
7. ENTER menu button
8. XLR 3F balanced input (AUX IN1)
9. XLR 3F balanced input (AUX IN2)
10. XLR 3M balanced output (AUX OUT)
11. RJ-45 shielded connector (MASTER OUT) for a connection with a slave central unit when the central unit is master in a coupled environment or to connect conference units with an external power supply.
12. RJ-45 shielded connectors (SLAVE IN) for a connection with a master central unit when the central unit is a slave in a coupled environment.
13. RJ-45 shielded connectors (SLAVE OUT) for a connection with a slave central unit when the central unit is already a slave in coupled environment or to connect conference units with an external power supply.
14. RJ45 DATA OUT connector:
    Connection to optional AOP2500 output panel
15. SUBD15 output connector:
    6 unbalanced controllable audio outputs to be used to connect to recording equipment, language distribution, …
16. COM 1 serial communications port to connect a PC. When connected with a PC, all the data related with the interpreter system flows over this connection. The COM port operates at a speed of 19200 bits per second.
17. COM2 serial communication port:
    Connection to camera control system (refer to Camera Control Protocol) or control panel (refer to Control Panel Protocol)
18. COM 3 serial communication port:
    Control of a PC with microphone, delegate, voting management software.
19. Port 1-6:
    Digital bus connection to connect contribution units and interpreter desks.
20. Power supply fan
21. Mains plug connector
22. Power switch
23. Fuse holder

24. Headphone connection, 3.5 mm jack socket. The audio signal of the headphone connection is directly associated with the AUX OUT 6 port. Every change in the configuration of the AUX OUT 6 port will be noticeable on the headphone connection



A complete technical overview of the settings of the serial communication ports *COM1*, *COM2* and *COM3*:

The CONFIDEA CU is able to serve conference systems in a non-coupled environment with up to 120 units. For larger systems with a maximum of 1024 terminals, up to 40 central units can be interconnect via system cables. The CONFIDEA CU is an integration of a microphone system and an interpreter system.

The CONFIDEA CU's menu control allows to:

- set the conference system to one of the 10 different operating modes (note however that some are only relevant in an environment where there is a PC connected to the central unit with the microphone management software),
- set the delegate unit's audio options like volume, automatic gain reduction, low, middle and treble,
- configure the options of the microphone system and the interpreter system,
- initialize the microphone and interpreter system,
- specify the auxiliary IN/OUT settings,
- reset the microphone and interpreter system,
- configure the language options of the interpreter desks and booths,
- save the configuration for the interpreter system as Config1 or as Config2,
- load the configuration for the interpreter system from Config1 or from Config2,
- and more.

Microphones can be connect via the two XLR-3F sockets (AUDIO IN 1 & 2) of the central unit with suitable preamplifiers or audio signals can be feed from additional audio equipment to the conference system. The output signal of the floor speech is available on the XLR-3M audio output (AUDIO OUT).

- connect a public address system and transmit the audio signal of the floor speech via the public address system,
- transmit the audio signal of the floor as "original soundtrack" to a broadcasting station.

It is also possible to connect an infrared language distribution system to the CONFIDEA CU, allowing guests or participants who don't have their own conference unit to follow the conference via infrared headphones. The guests or participants can also choose between the floor channel and up to 28 additional language channels.

An analog output panel (AOP) can also be connected to the CONFIDEA CU. The purpose of the analog output panel is to provide the system with additional analog outputs. A total of 9 XLR-3M ports are available to send an analog signal out to other devices, for example, a recording device or a public address system.

A D-sub connector with 6 analog outputs is also present on the central unit for analog outputs. The technical specification of the connector is explained further in this manual under "Connecting equipment to the AUX OUT".

8.3. Additional Licenses

The central unit has a standard license to handle 4 interpreter channels.

It is however possi ɔ increase the number of channels up to 28 channels:

- 4 channels (standard license)
- 8 channels
- 28 channels

To check the current license and update the license please refer to License Menu

8.4. Installation

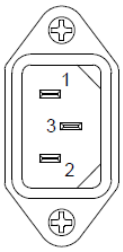
The central control unit is equipped with mounting brackets to easily build into a rack.

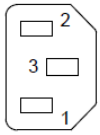
8.5. External connections

8.5.1. Power Supply

Euro Mains connector

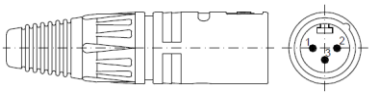
Pin 1	Live, Brown
Pin 2	Neutral, Blue
Pin 3	Earth, Green / Yellow





8.5.2. XLR IN Connection

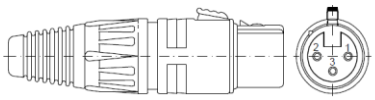
The AUX IN1, 2 connections on the central unit have a XLR 3 Female connector. So a cable with XLR 3 Male connector should be used to insert an external signal.



Pin 1	Shield
Pin 2	Signal +
Pin 3	Signal -

8.5.3. XLR OUT Connection

The AUX OUT connections on the central unit has a XLR 3 Male connector. So a cable with XLR 3 Female connector should be used to output the signal to an external device.



Pin 1	Shield
Pin 2	Signal +
Pin 3	Signal -

8.5.4. Sub D 15 OUT connection

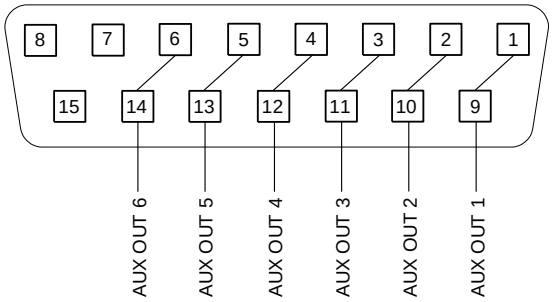
The Sub D 15 OUT connector on the central unit can output 6 channels (FL + 5 channels).

The first one is always the floor channel, the other outputs can be assigned using the Aux settings menu of the central unit.

The output on Aux 1 is the same as the signal on the XLR out, the floor. The volume difference between the outputs (subD out 1 and XLR out) can be adjusted with the 'Volume XLR' setting in the Aux OUT 1 menu item. In the default setting both volumes have the same level.

All other outputs can be assigned to any channel. Next to the channel also the volume and the status of the output can be altered.

The Aux out 6 is also routed to the headphone jack at the front of the central unit. By default the volume level is the same for both outputs. The headphone output level can be changed with the 'Headphone Volume' setting in the Aux out 6 menu item.



Pin 1	Aux out1 (Floor)
Pin 2	Aux out 2
Pin 3	Aux out 3
Pin 4	Aux out 4
Pin 5	Aux out 5
Pin 6	Aux out 6 (Headphone jack)
Pin 7	Control out
Pin 8	Control in (max 5V)
Pin 9	GND, AUX out 1
Pin 10	GND, AUX out 2
Pin 11	GND, AUX out 3
Pin 12	GND, AUX out 4
Pin 13	GND, AUX out 5
Pin 14	GND, AUX out 6
Pin 15	-

8.5.5. RS232 Connection

Control of the conference system via PC software is established via a Serial RS232 connection.

There is a separation between the control of the interpreter part (COM1) and the microphone part (COM3).

Interpreter management TIS COM1

Microphone management TMS COM3

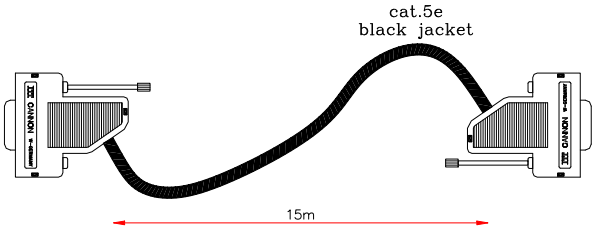
This means if both software suites are used two serial ports are needed on the PC.

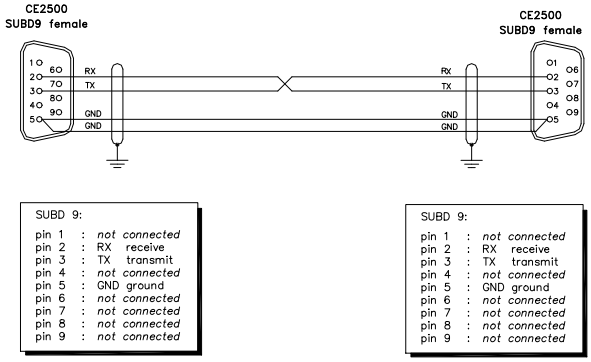
Settings of the serial connection:

Bits per second:	19200
Data bits:	8
Parity:	None
Stop bits:	1

Flow control:	None

In case there is a lack of available serial ports on the PC a USB to serial converter can be used.





SUBD 9:

pin 1 : *not connected*
pin 2 : RX receive
pin 3 : TX transmit
pin 4 : *not connected*
pin 5 : GND ground
pin 6 : *not connected*
pin 7 : *not connected*
pin 8 : *not connected*
pin 9 : *not connected*

SUBD 9:

pin 1 : *not connected*
pin 2 : RX receive
pin 3 : TX transmit
pin 4 : *not connected*
pin 5 : GND ground
pin 6 : *not connected*
pin 7 : *not connected*
pin 8 : *not connected*
pin 9 : *not connected*

This is the configuration of a standard null modem cable.

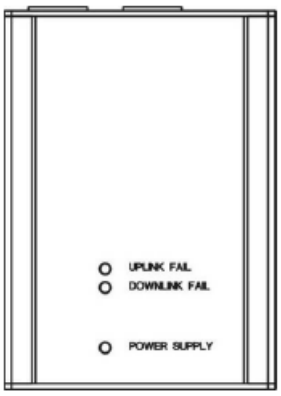
Note:

No hardware handshaking is allowed. Check COM port settings.

Note:

Software versions are checked at both sides before the communication is established.

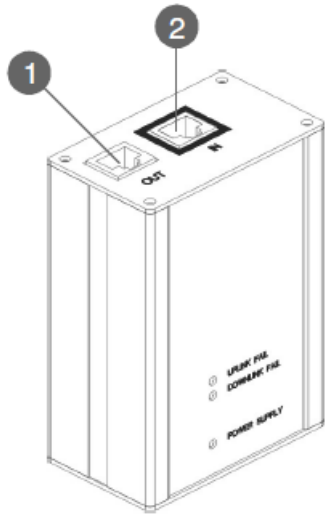
8.6. Repeater for the system



A repeater can be used to strengthen the signal on a system cable, when the voltage on a branch drops below 36V.

The repeater box has two ports, the *IN* and *OUT* port. The RJ-45 *OUT* connector (1) should be connect to a delegate unit and the Confidea central unit should be connected to the RJ-45 *IN* connector (2) of the repeater.

For more information when to use a repeater, use the power calculator tool.



The repeater box has, next to the two RJ-45 connectors, three LEDs:

- UPLINK FAIL: lights up when there is no communication with a delegate unit.
- DOWNLINK FAIL: lights up when there is no communication from the Confidea central unit.
- POWER SUPPLY: should always lights up, whenever the repeater has power.

8.7. Menu structure

The menu structure on the next pages can be used as a quick reference guide to configure the conference systems.

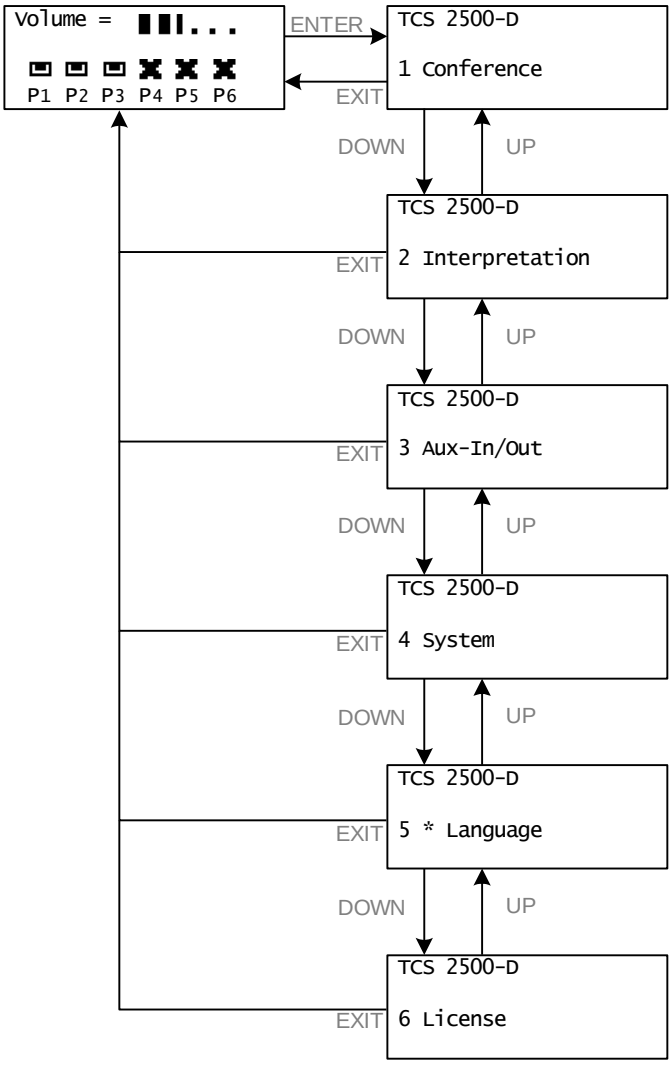
In each menu structure the following information is given:

- Buttons needed to get to the desired menu item
- Settings that can be adjusted
- Buttons needed to adjust the settings
- Buttons needed to save the changes
- Buttons to leave menu item without saving the settings

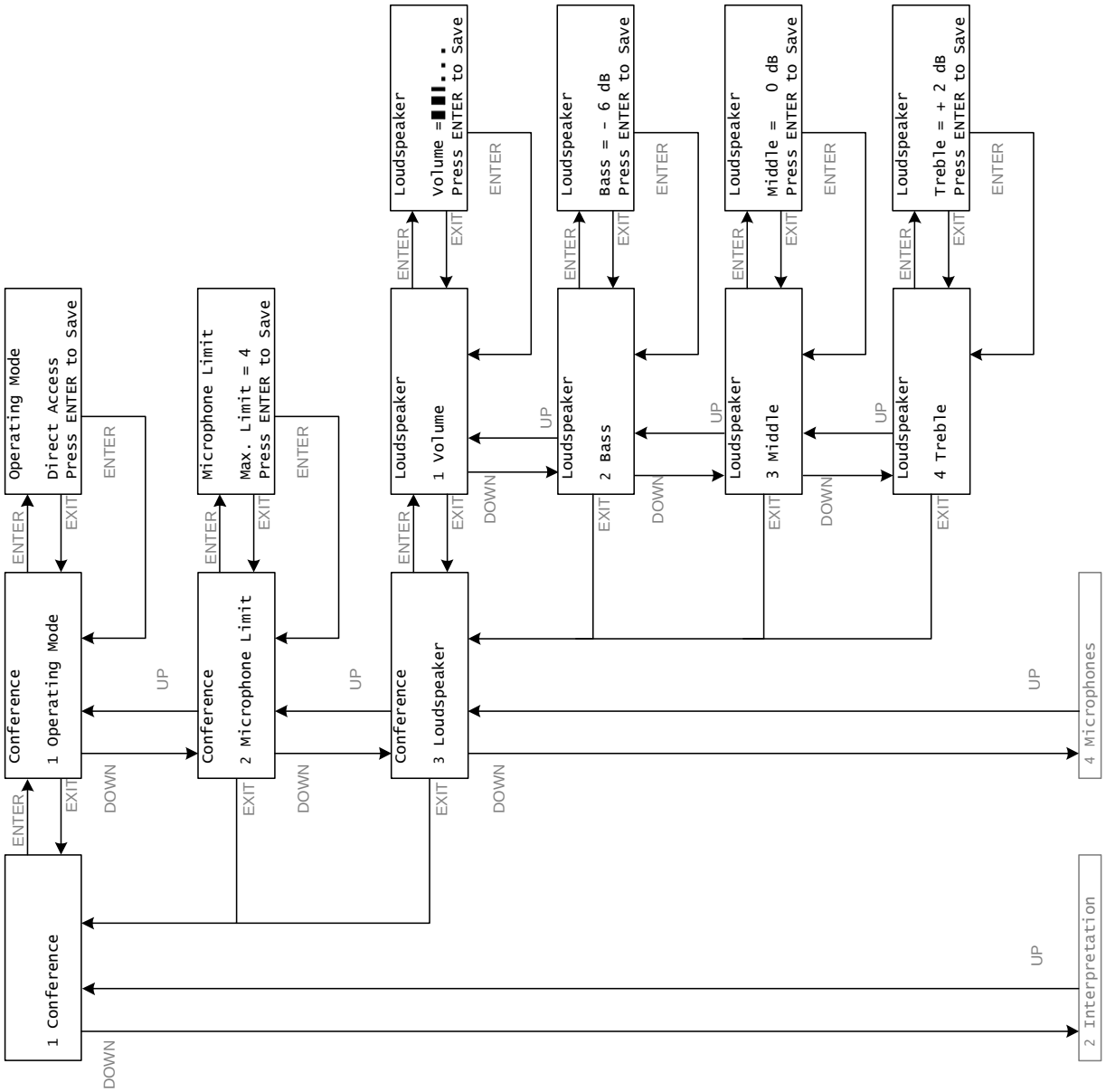
Overview:

- Main menu and root menu items
- Conference menu
- Interpretation menu
- Aux IN/OUT menu
- System menu
- Language menu
- License menu

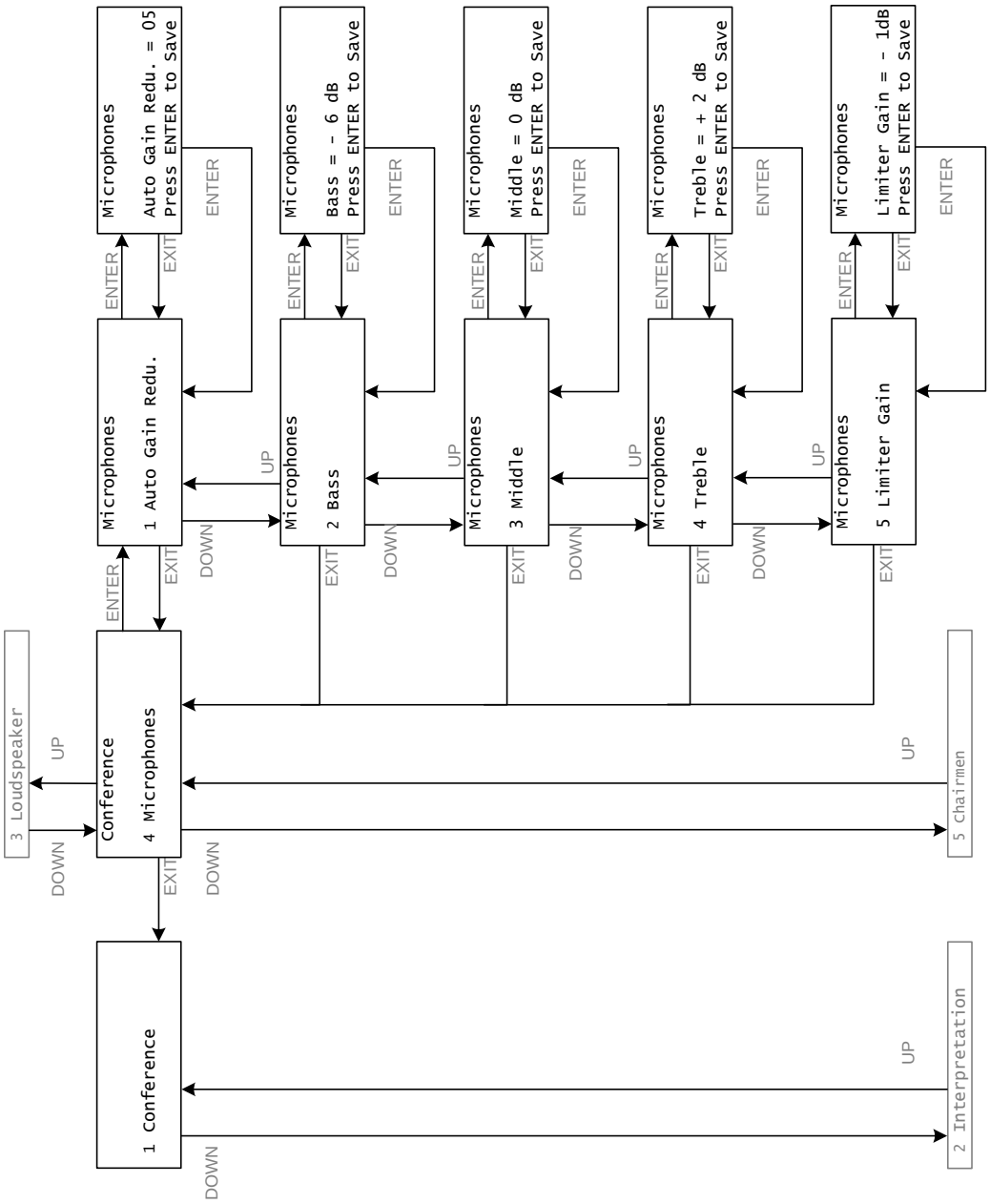
Main menu


Volume =
P1 P2 P3 P4 P5 P6
ENTER
EXIT
TCS 2500-D
1 Conference
DOWN
UP
TCS 2500-D
2 Interpretation
TCS 2500-D
3 Aux-In/Out
TCS 2500-D
4 System
TCS 2500-D
5 * Language
TCS 2500-D
6 License

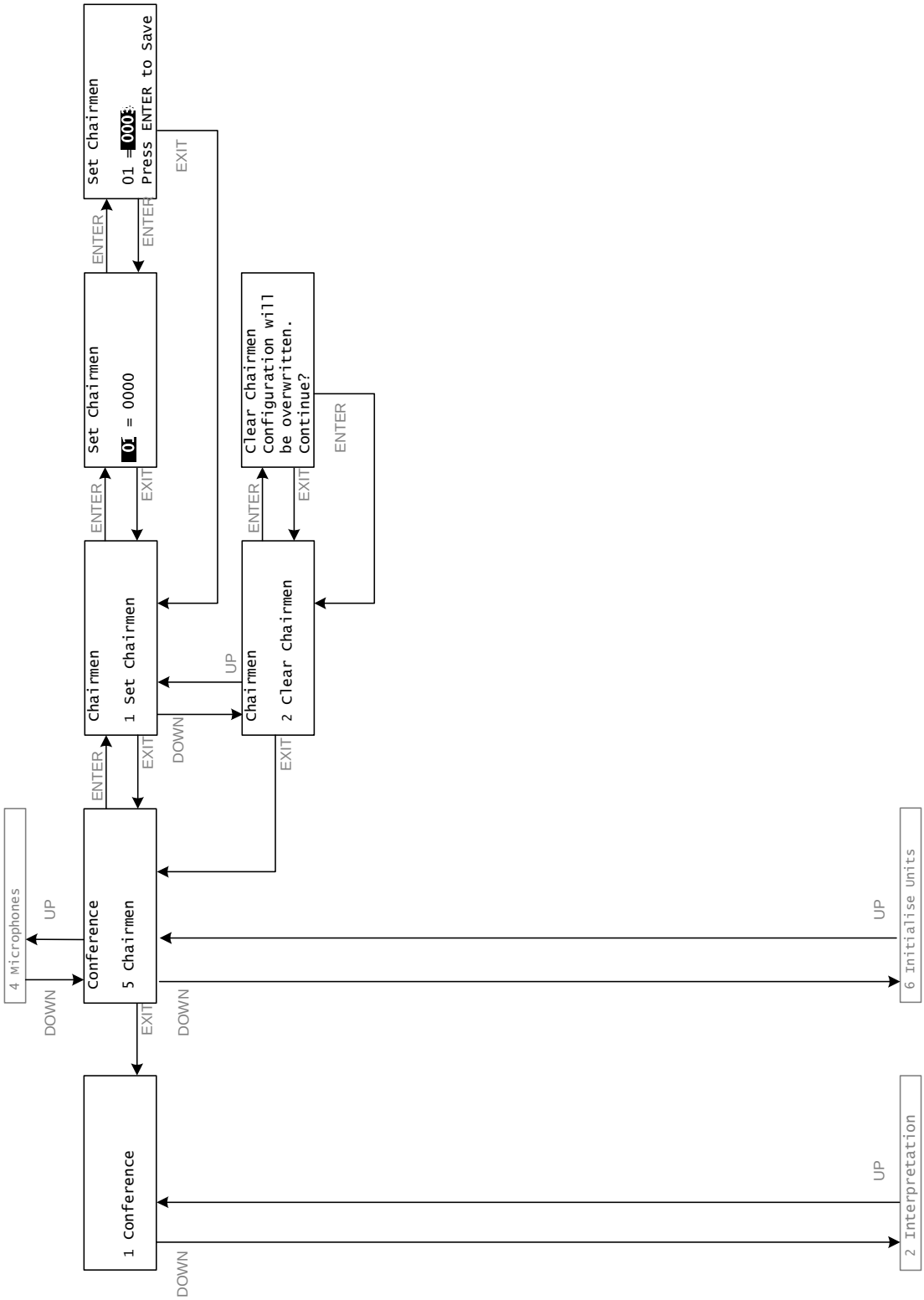
Conference menu (1 of 7)



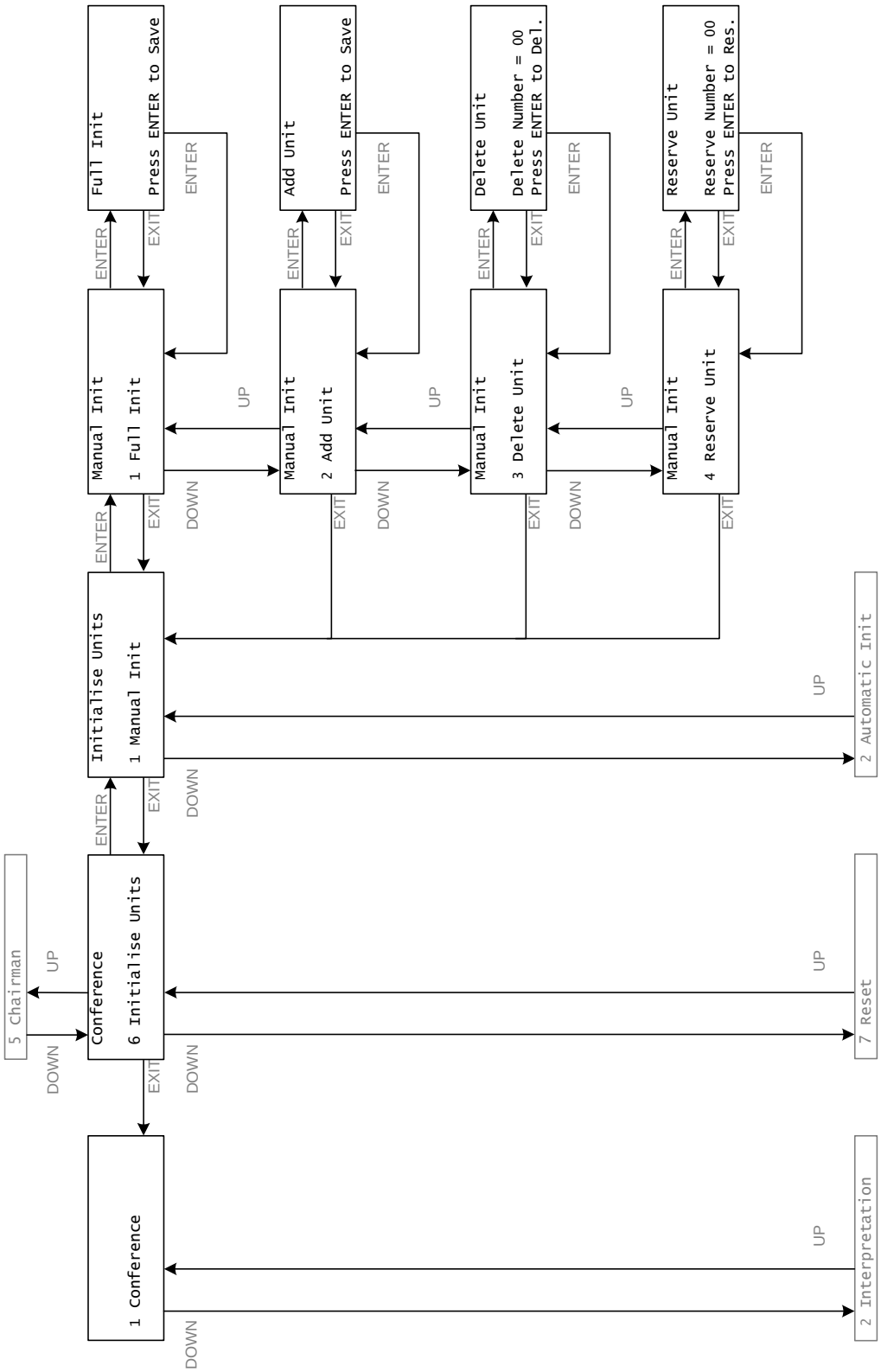
Conference menu (2 of 7)



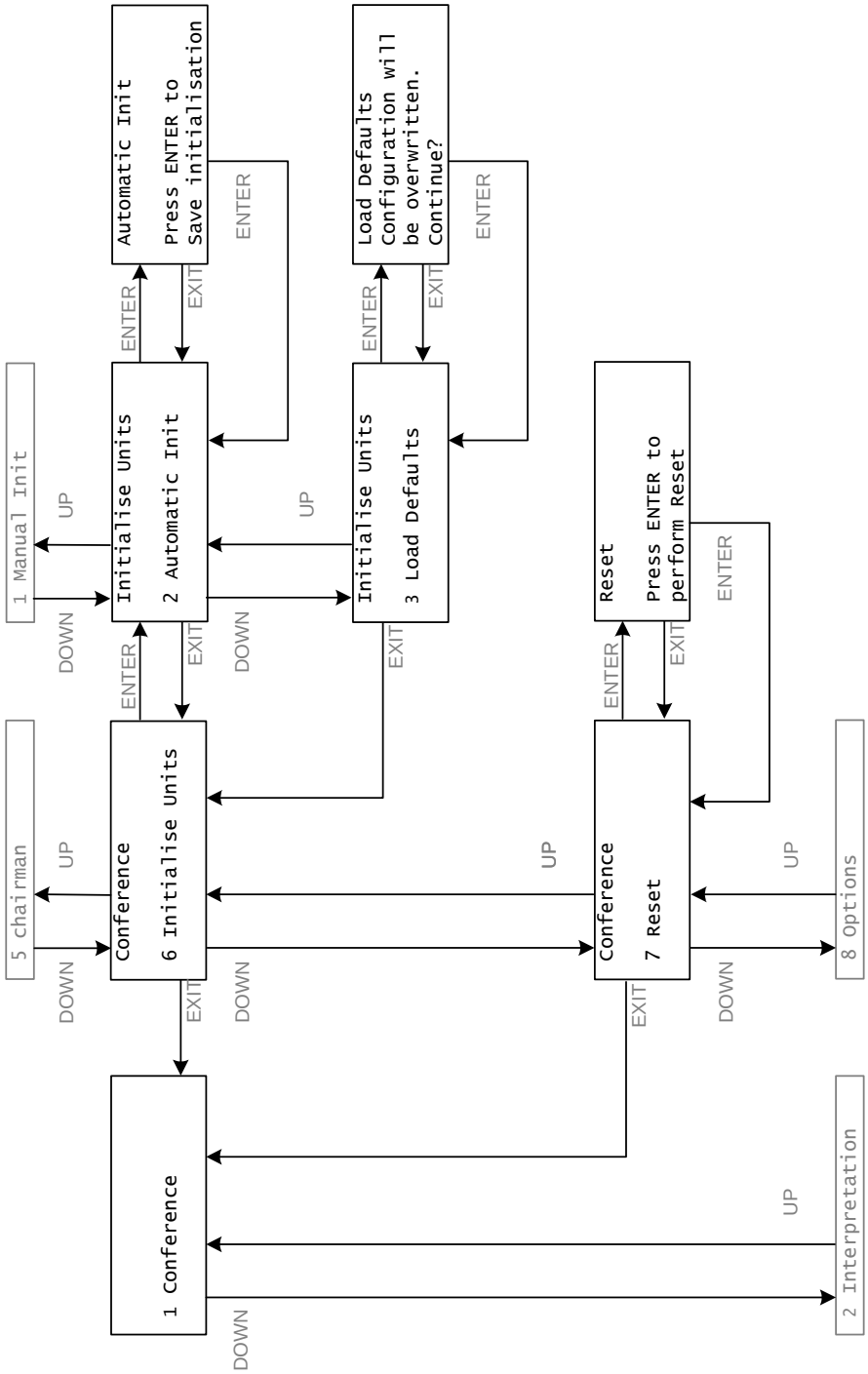
Conference menu (3 of 7)



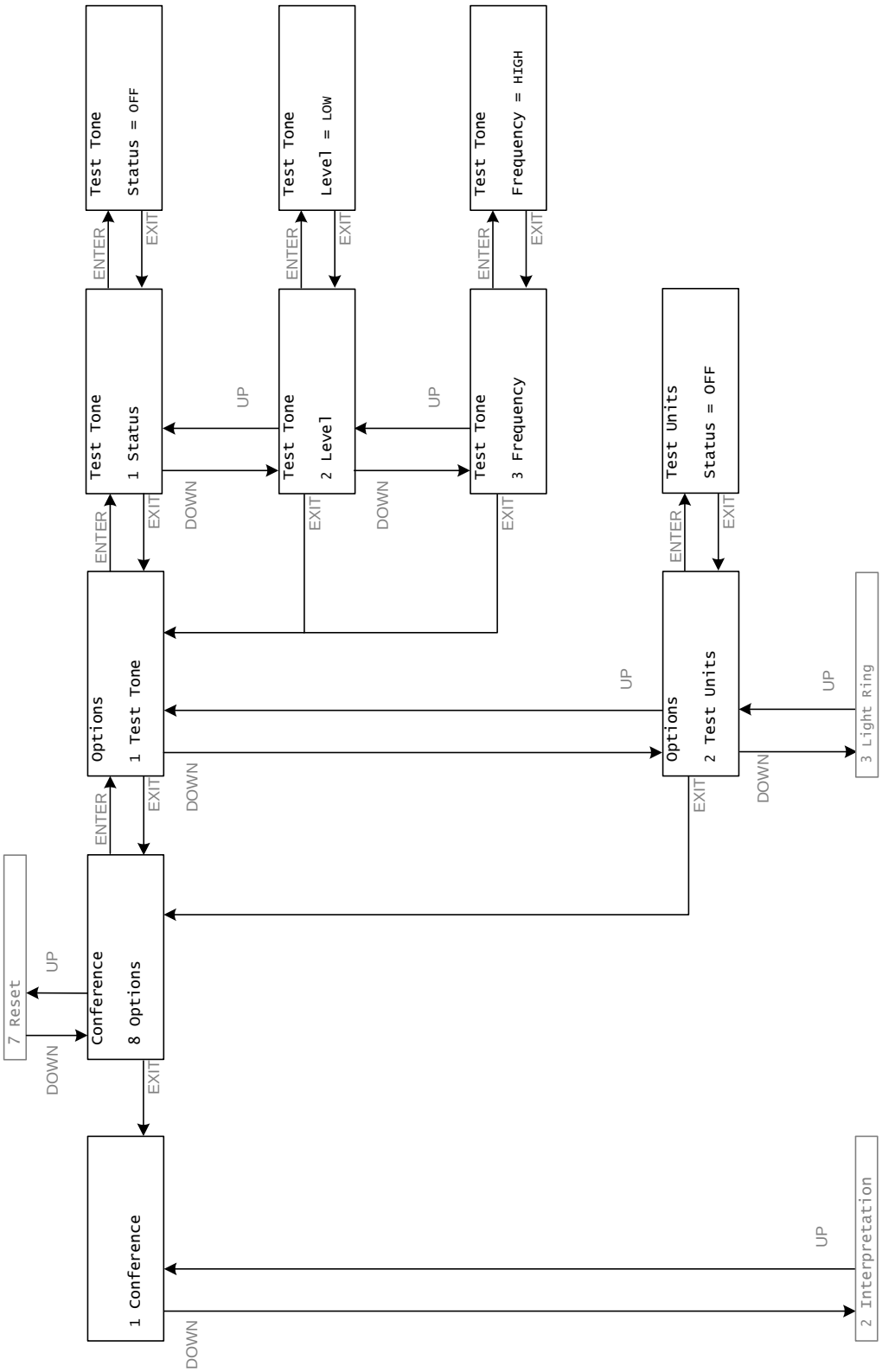
Conference menu (4 of 7)



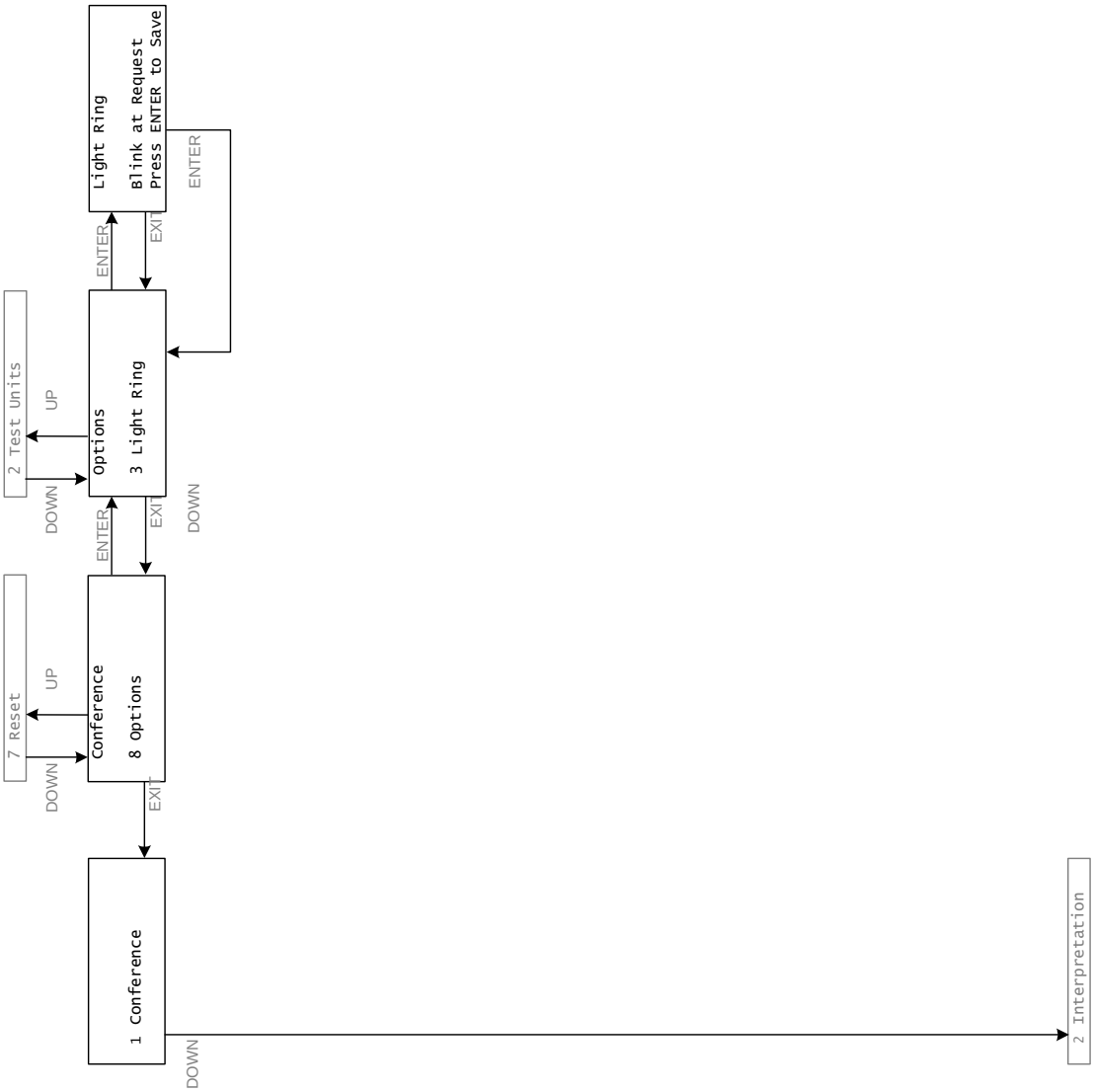
Conference menu (5 of 7)



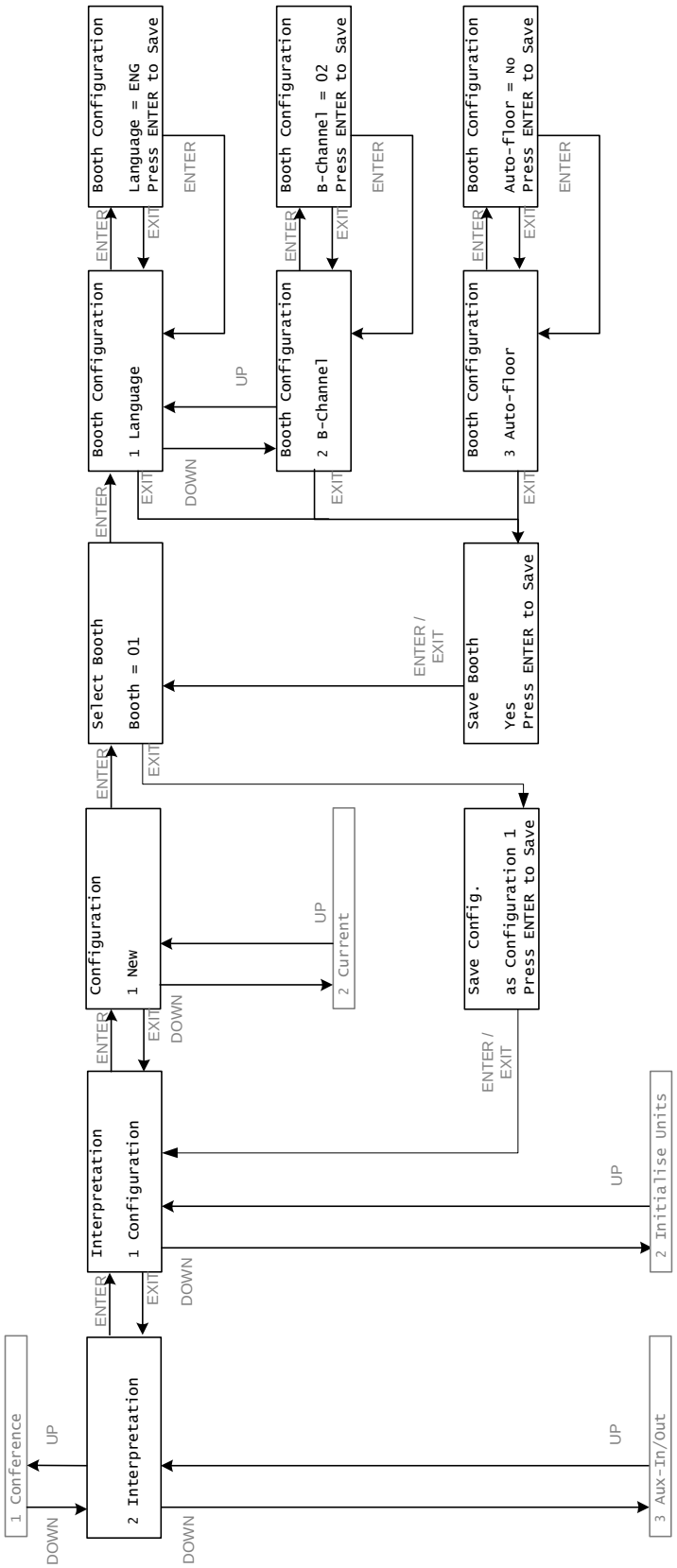
Conference menu (6 of 7)



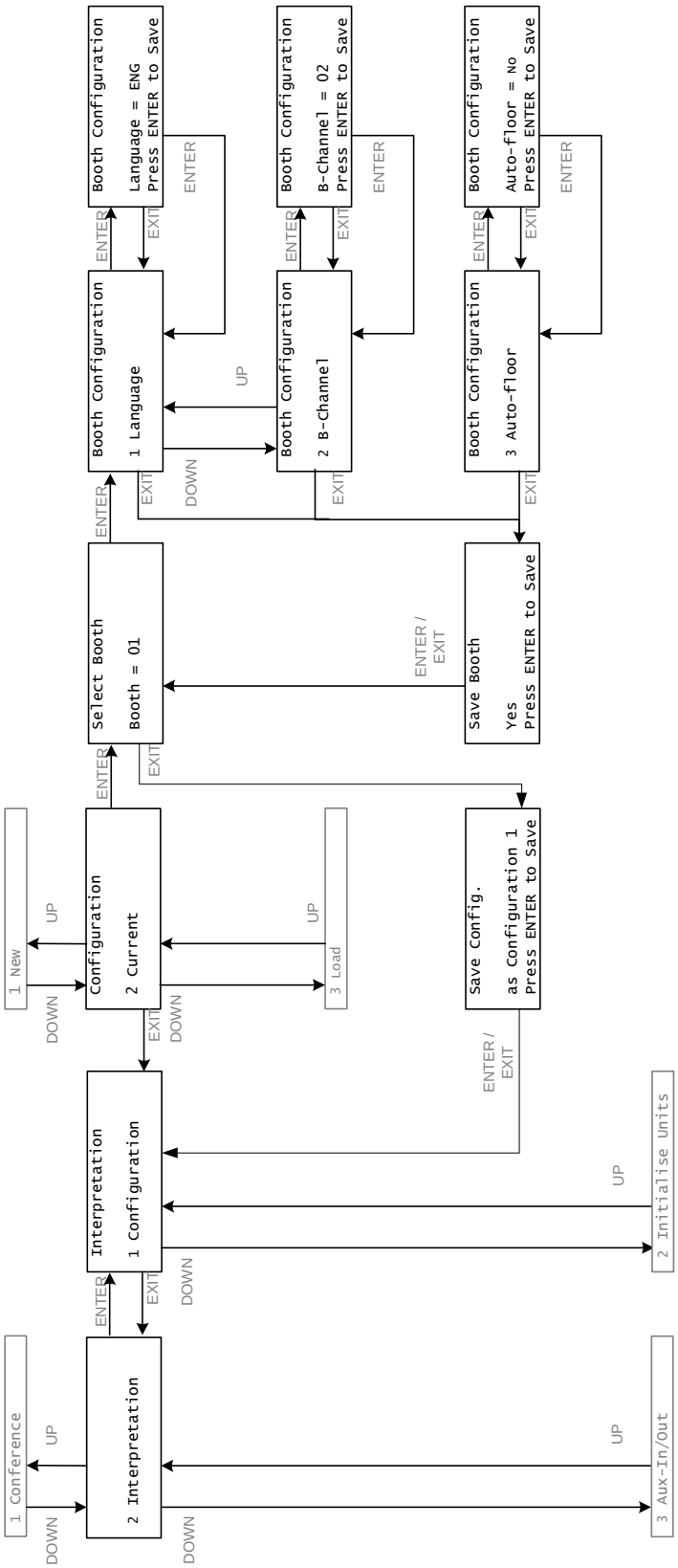
Conference menu (7 of 7)



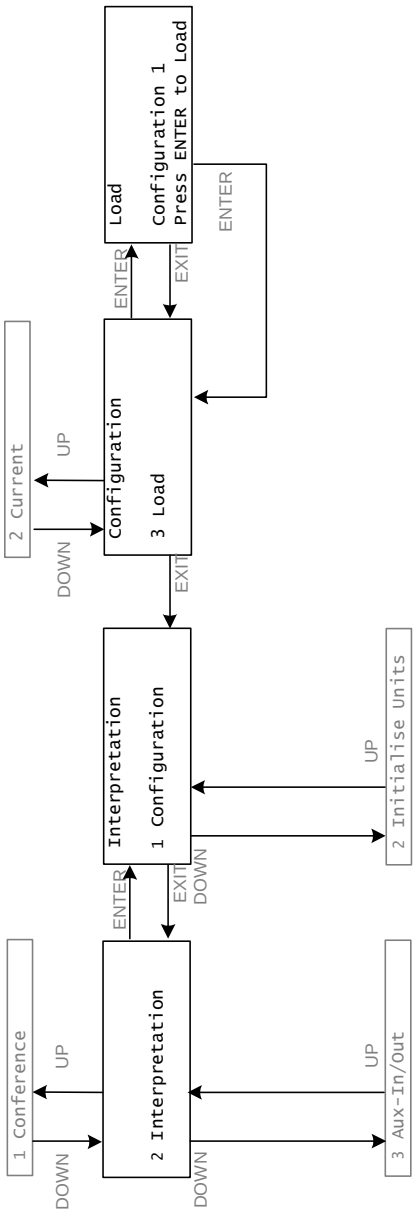
Interpreter menu (1 of 5)



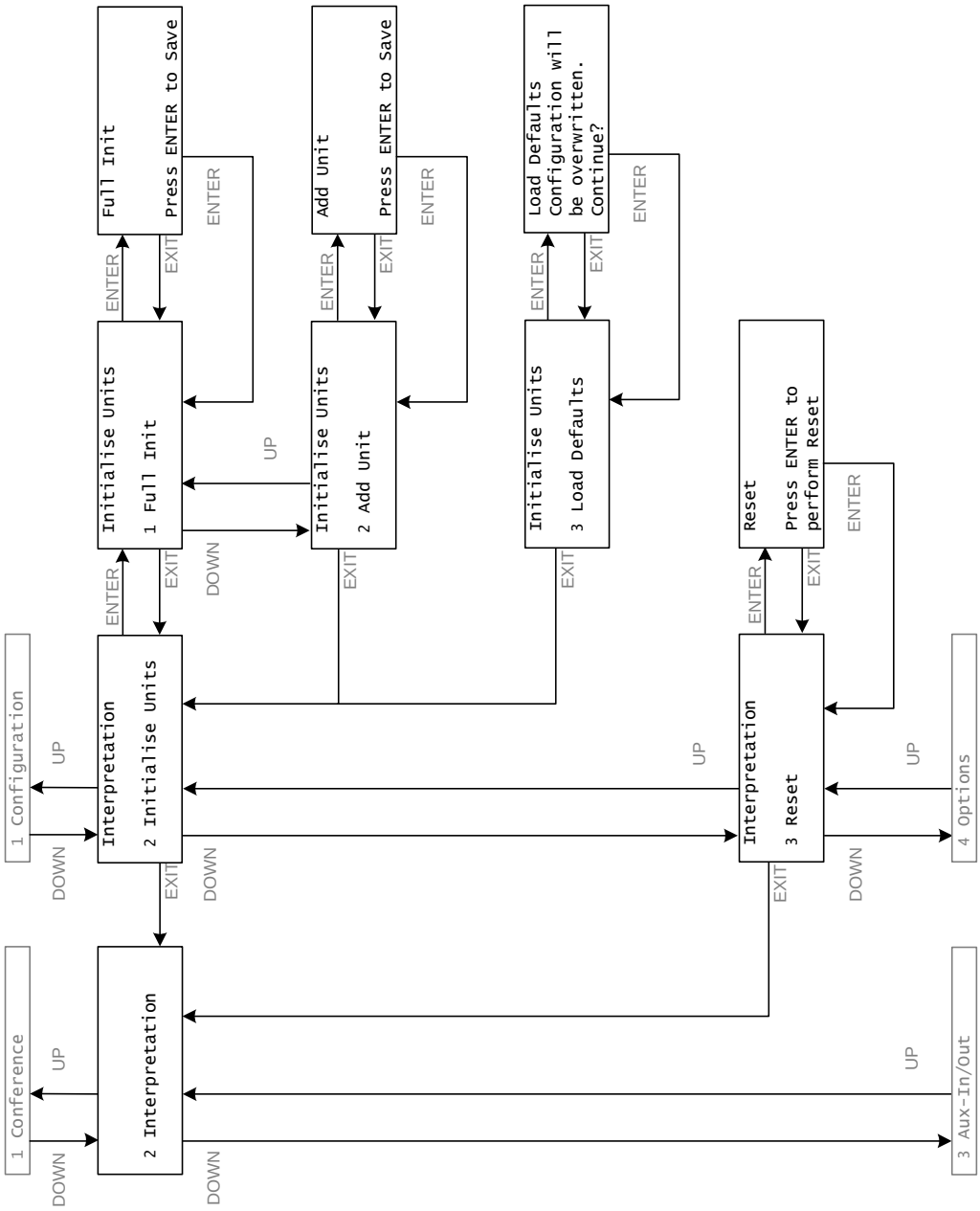
Interpreter menu (2 of 5)



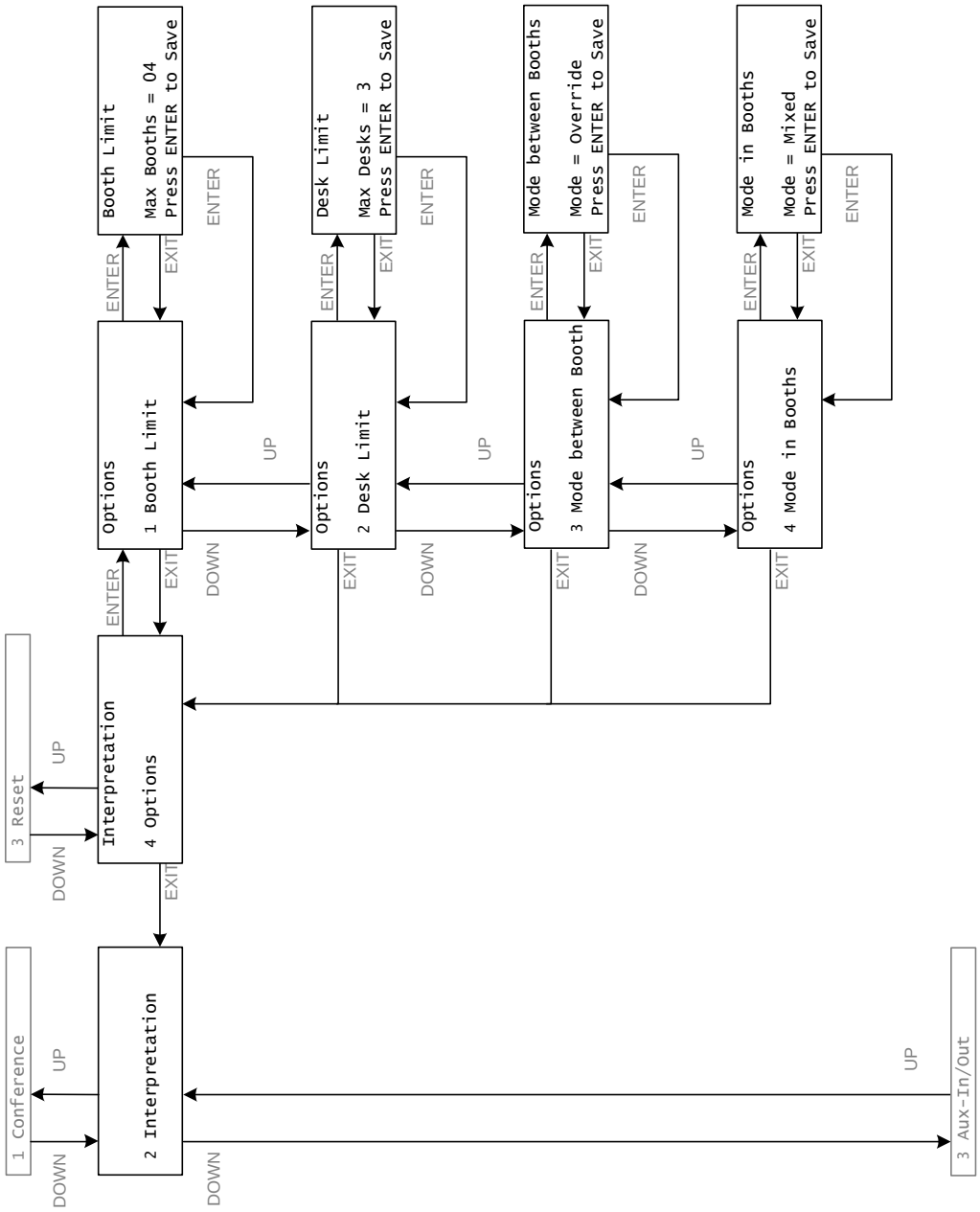
Interpreter menu (3 of 5)



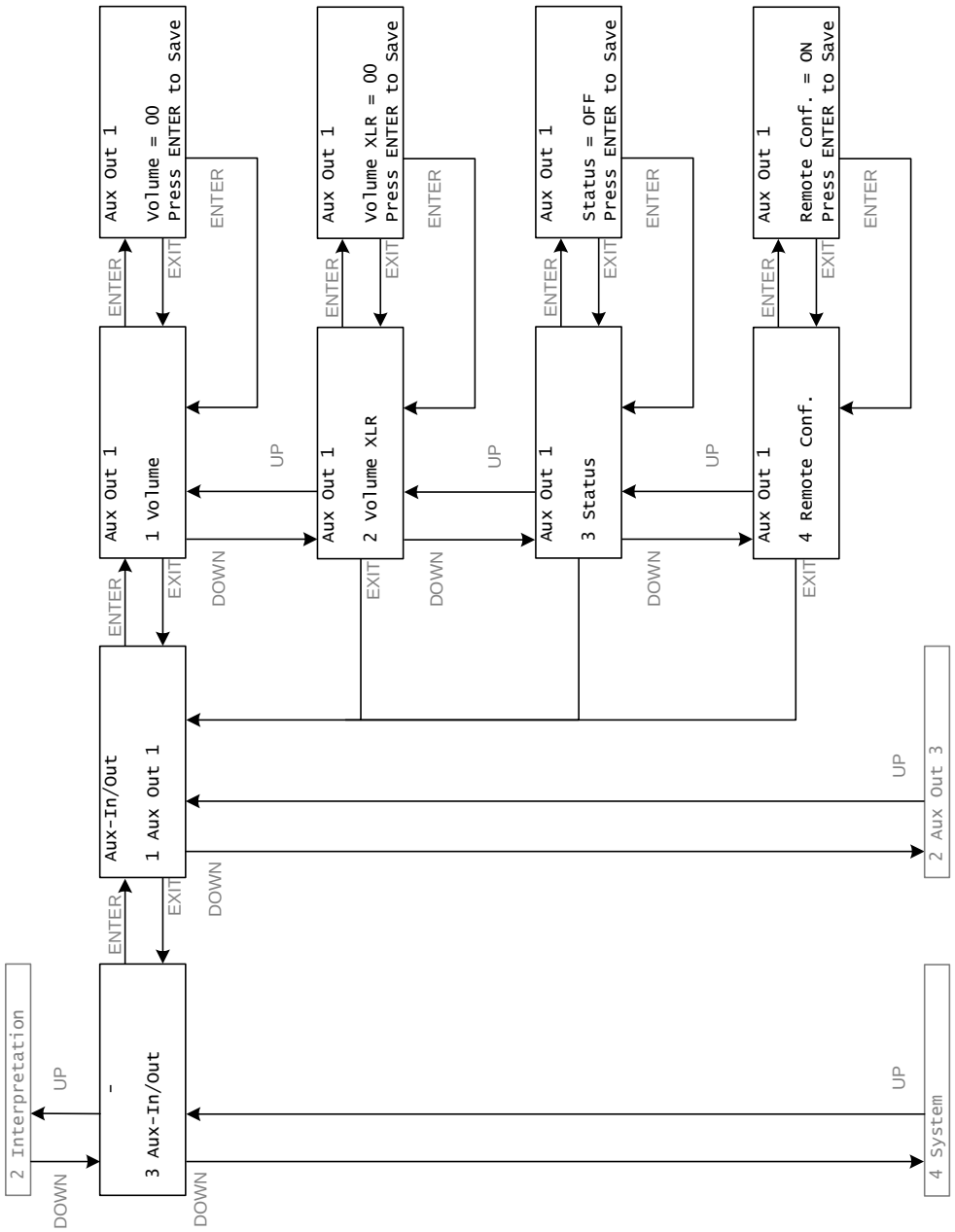
Interpreter menu (4 of 5)



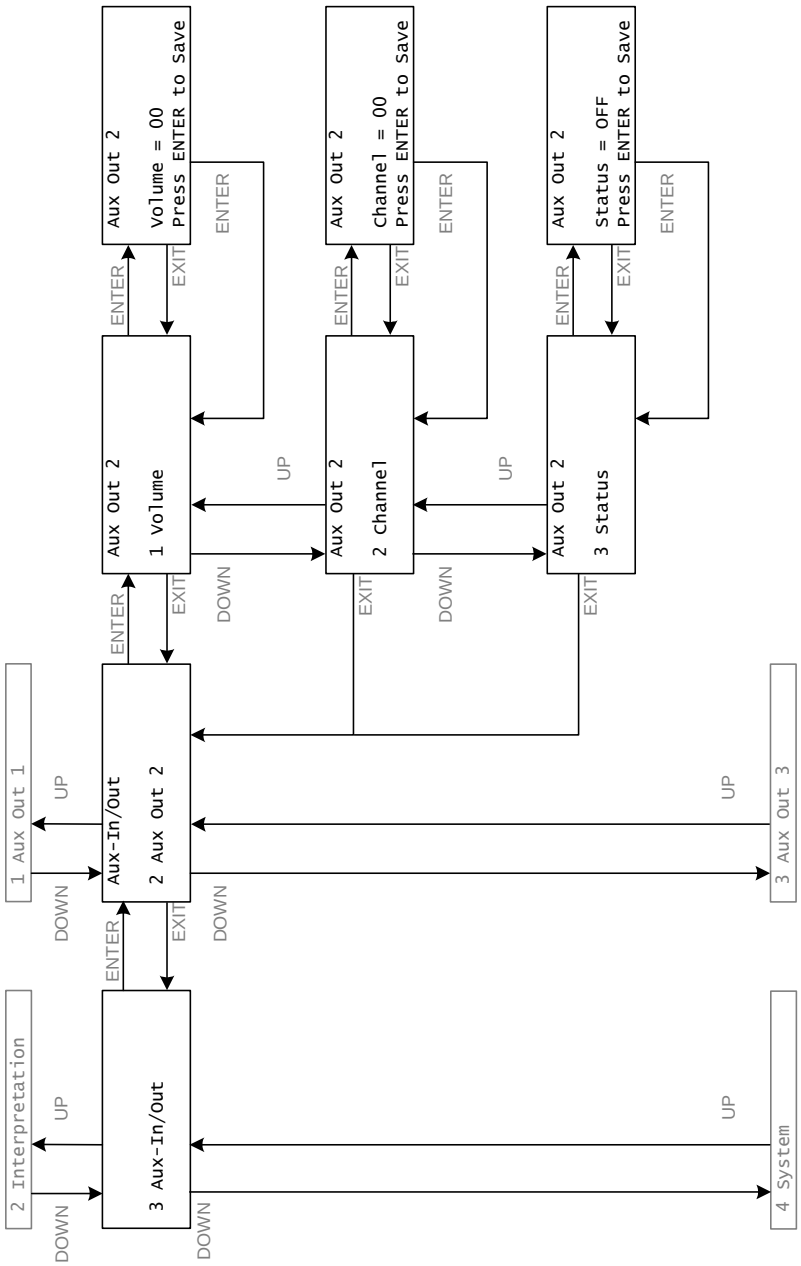
Interpreter menu (5 of 5)



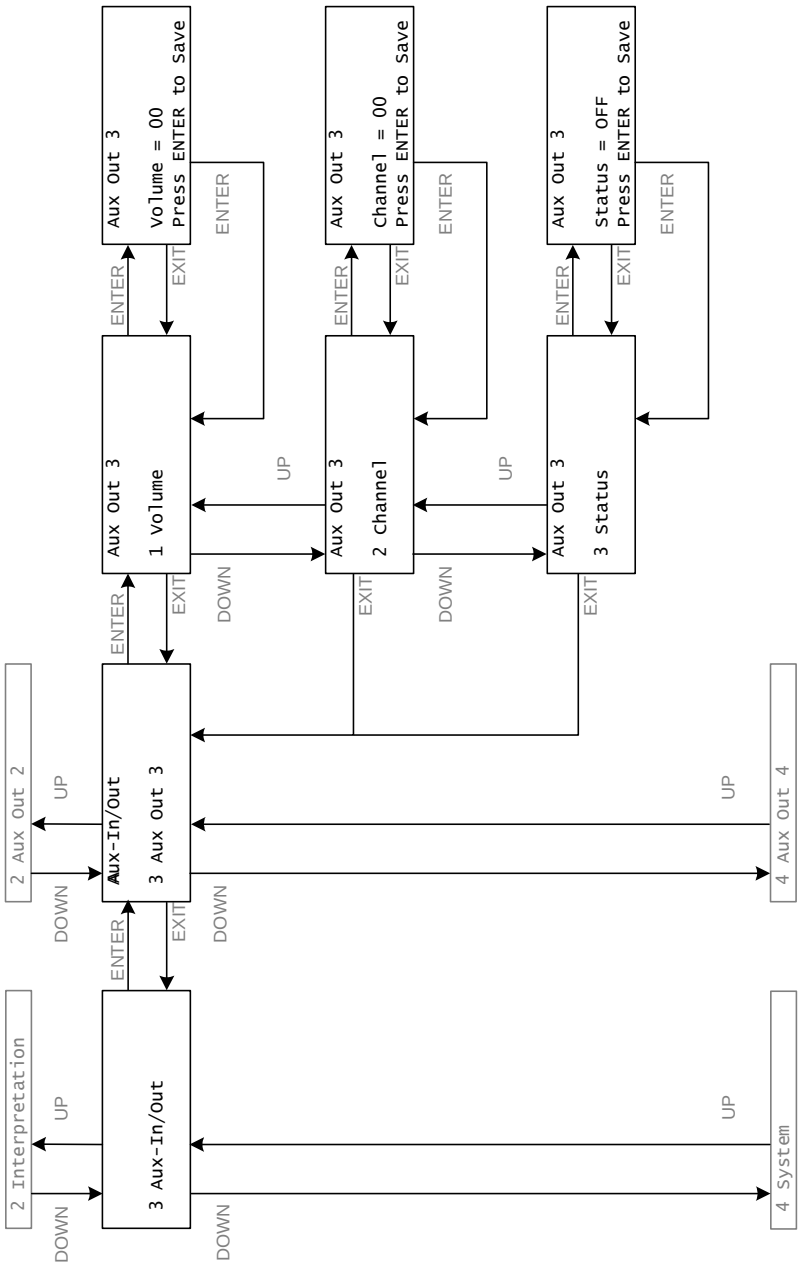
Aux IN/OUT menu (1 of 8)



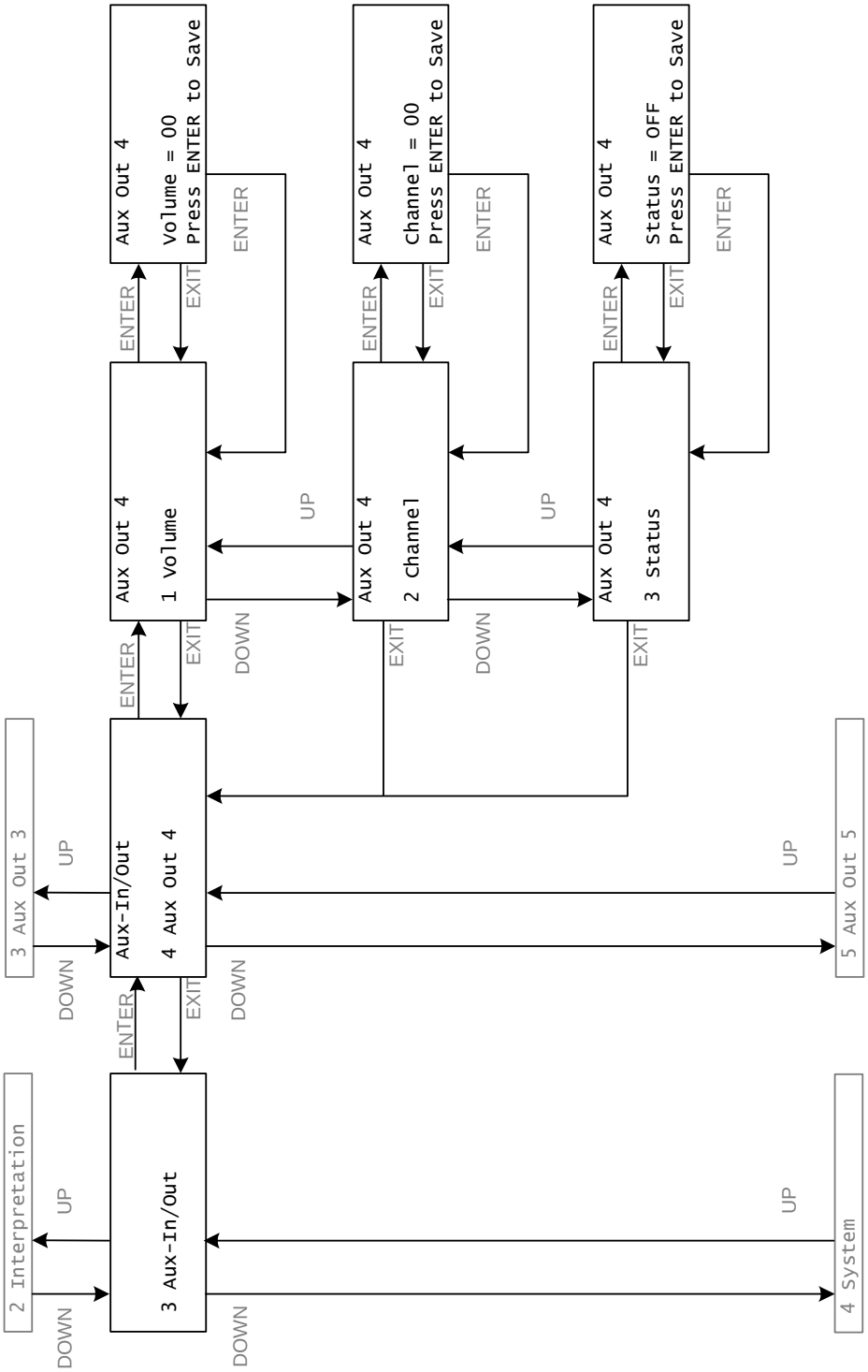
Aux IN/OUT menu (2 of 8)



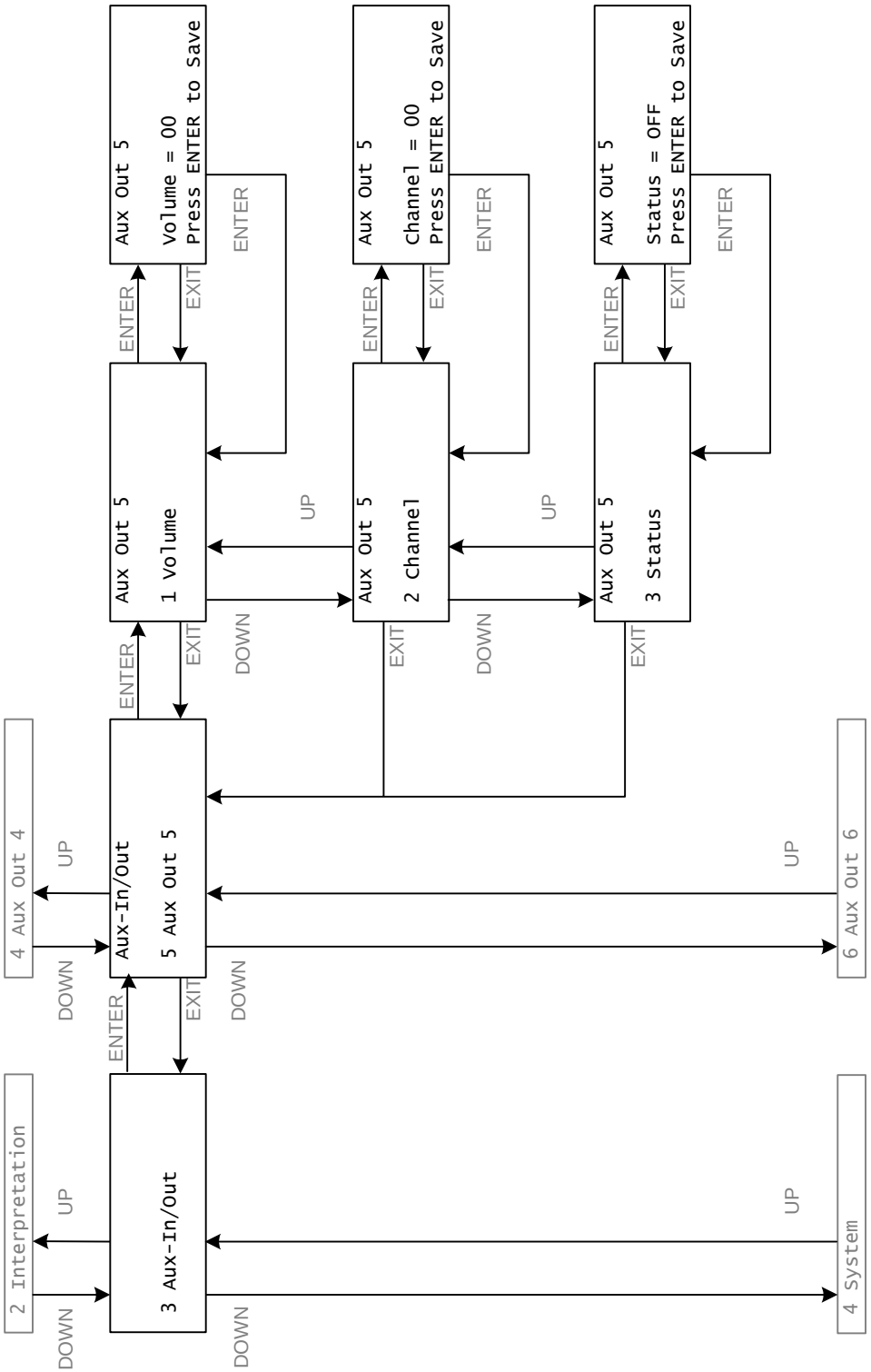
Aux IN/OUT menu (3 of 8)



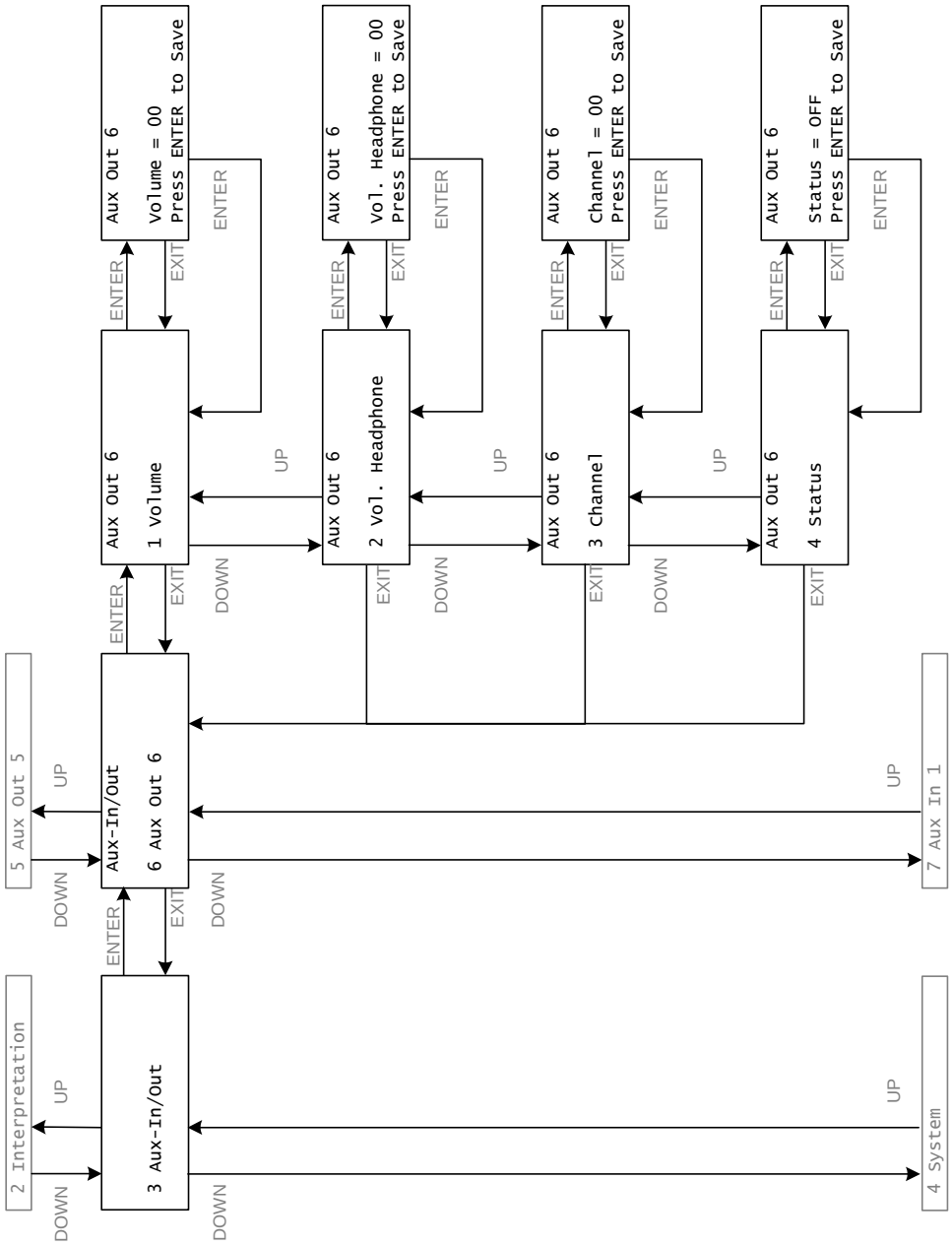
Aux IN/OUT menu (4 of 8)



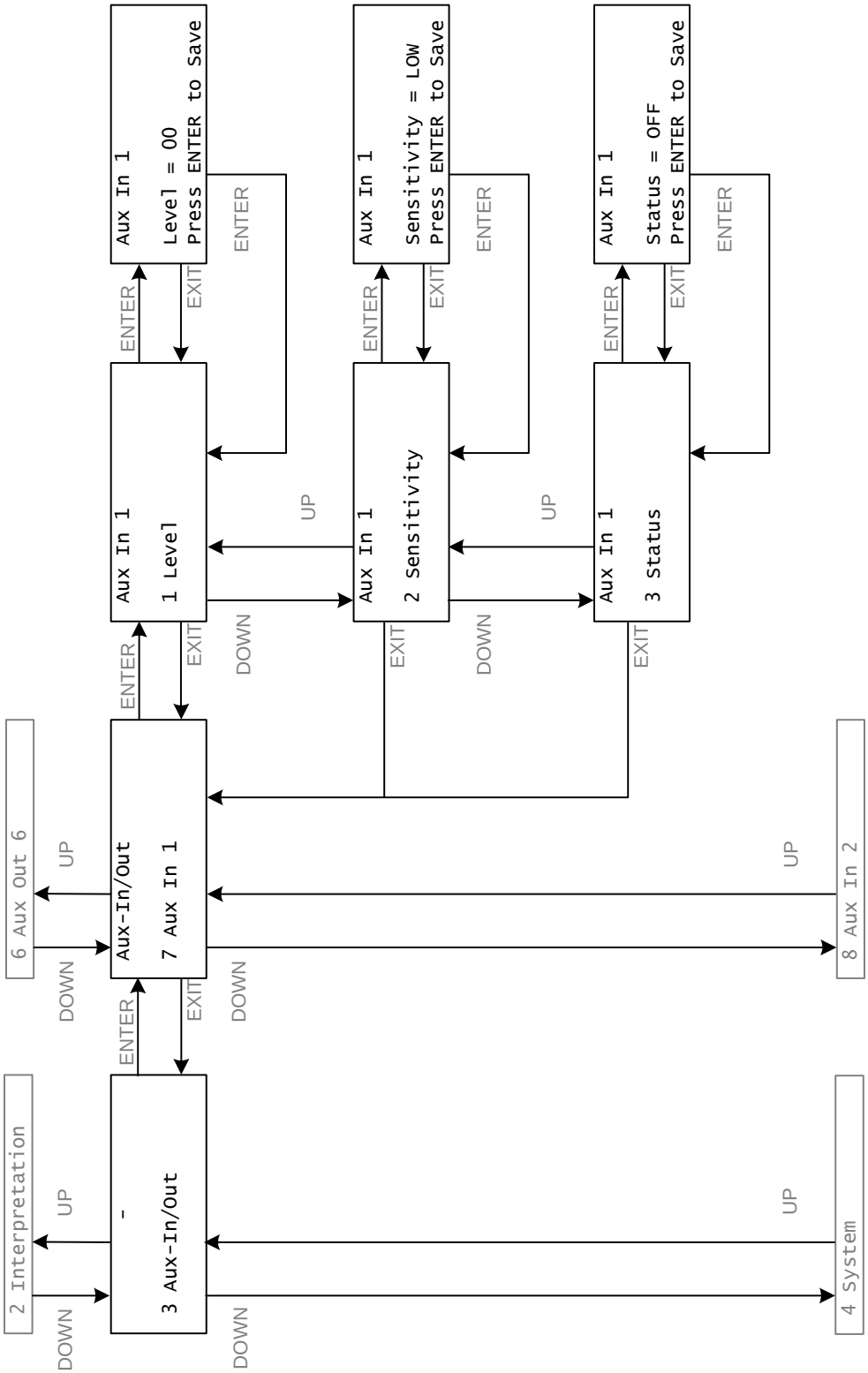
Aux IN/OUT menu (5 of 8)



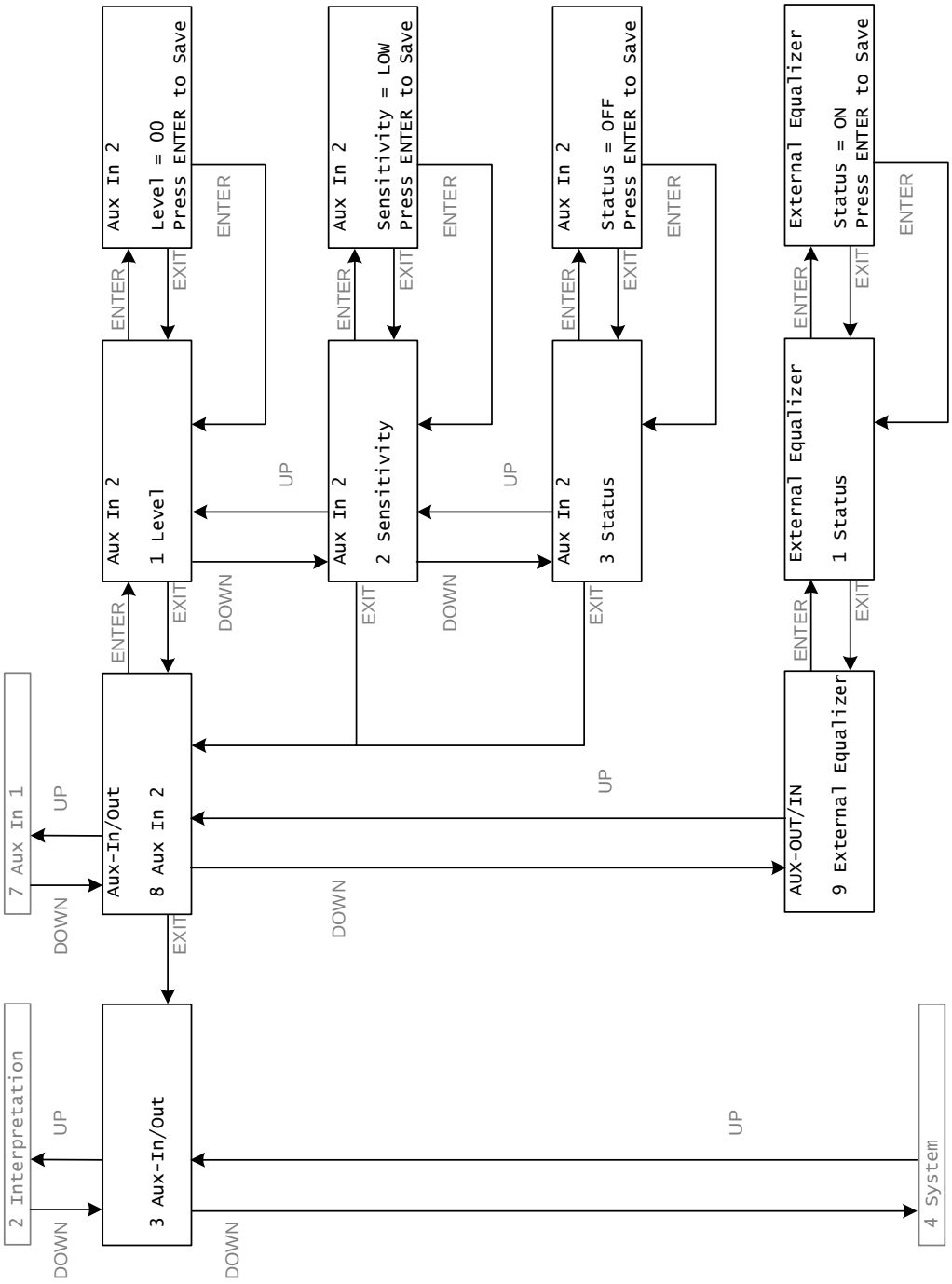
Aux IN/OUT menu (6 of 8)



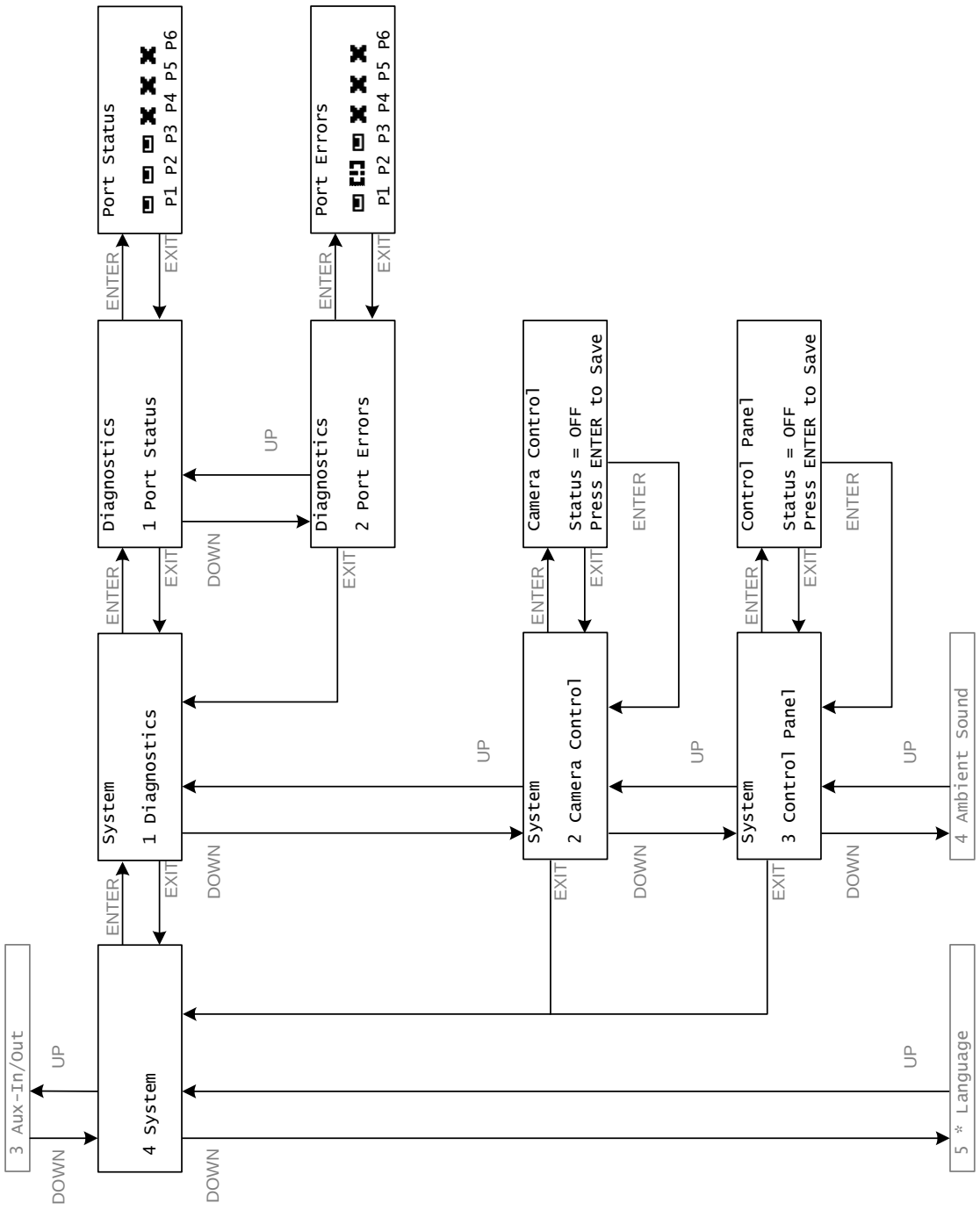
Aux IN/OUT menu (7 of 8)



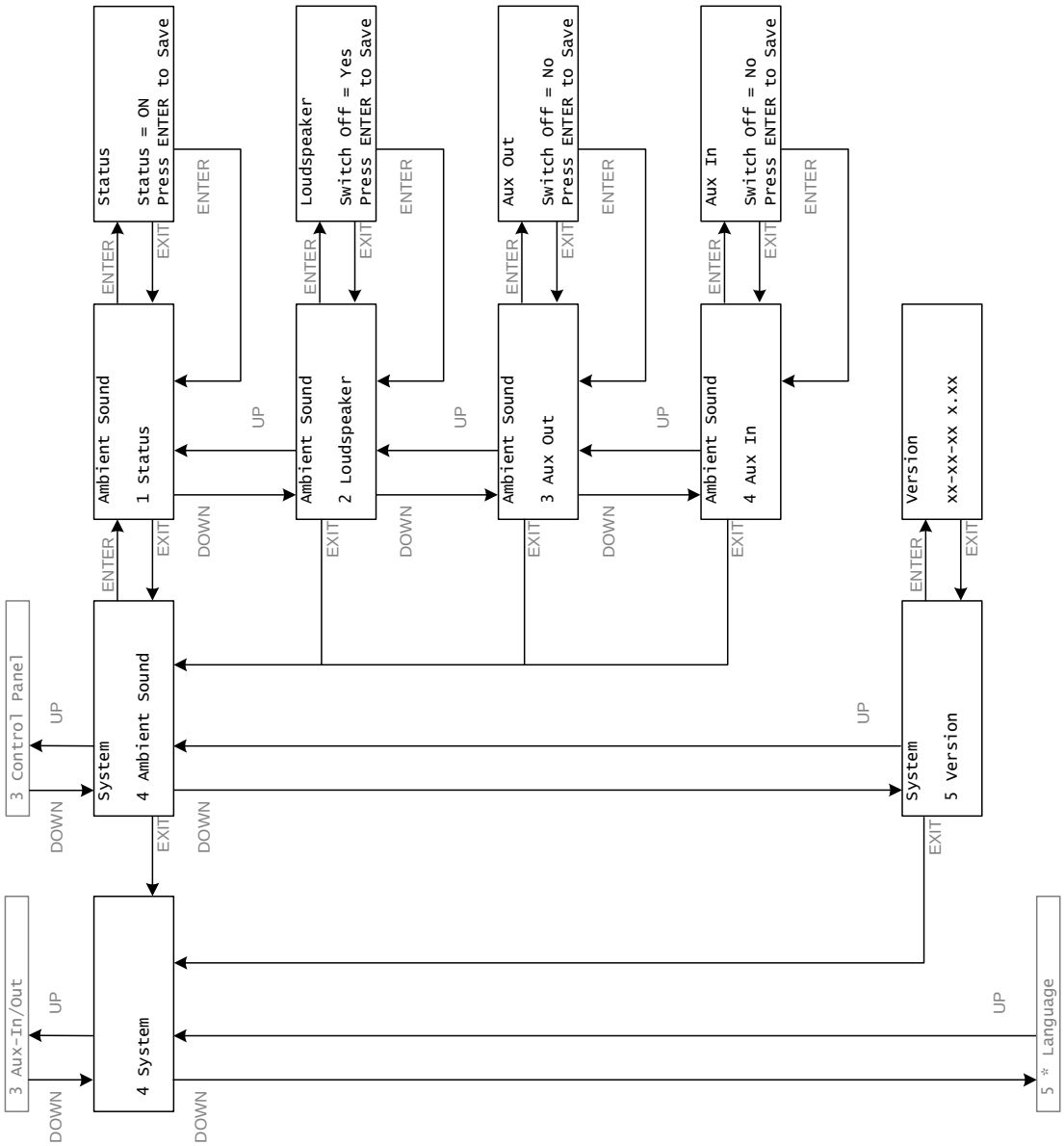
Aux IN/OUT menu (8 of 8)



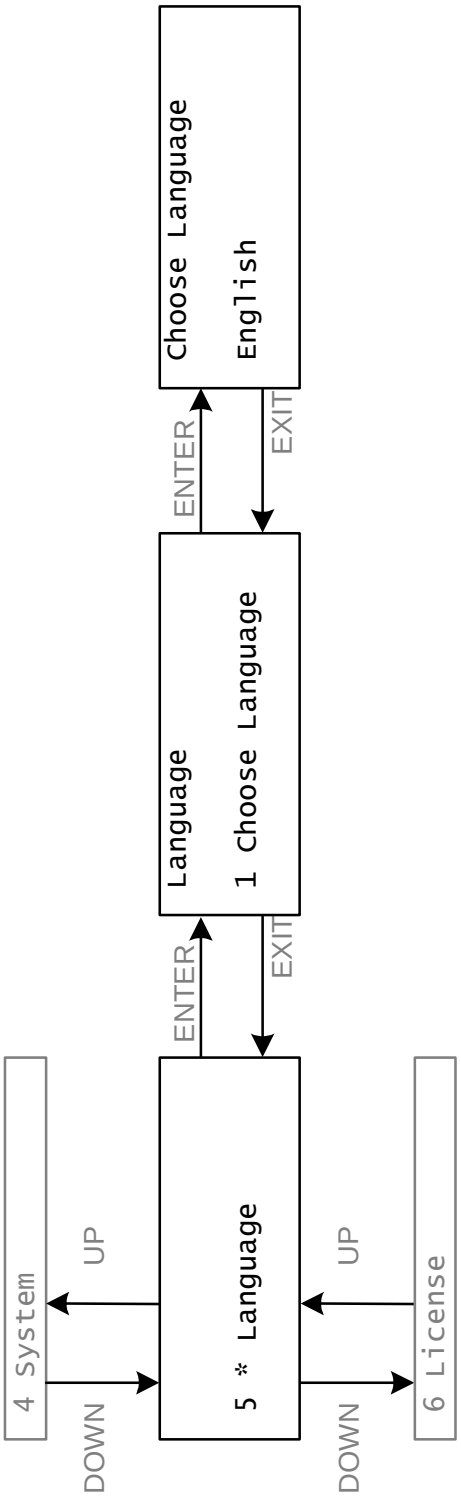
System menu (1 of 2)



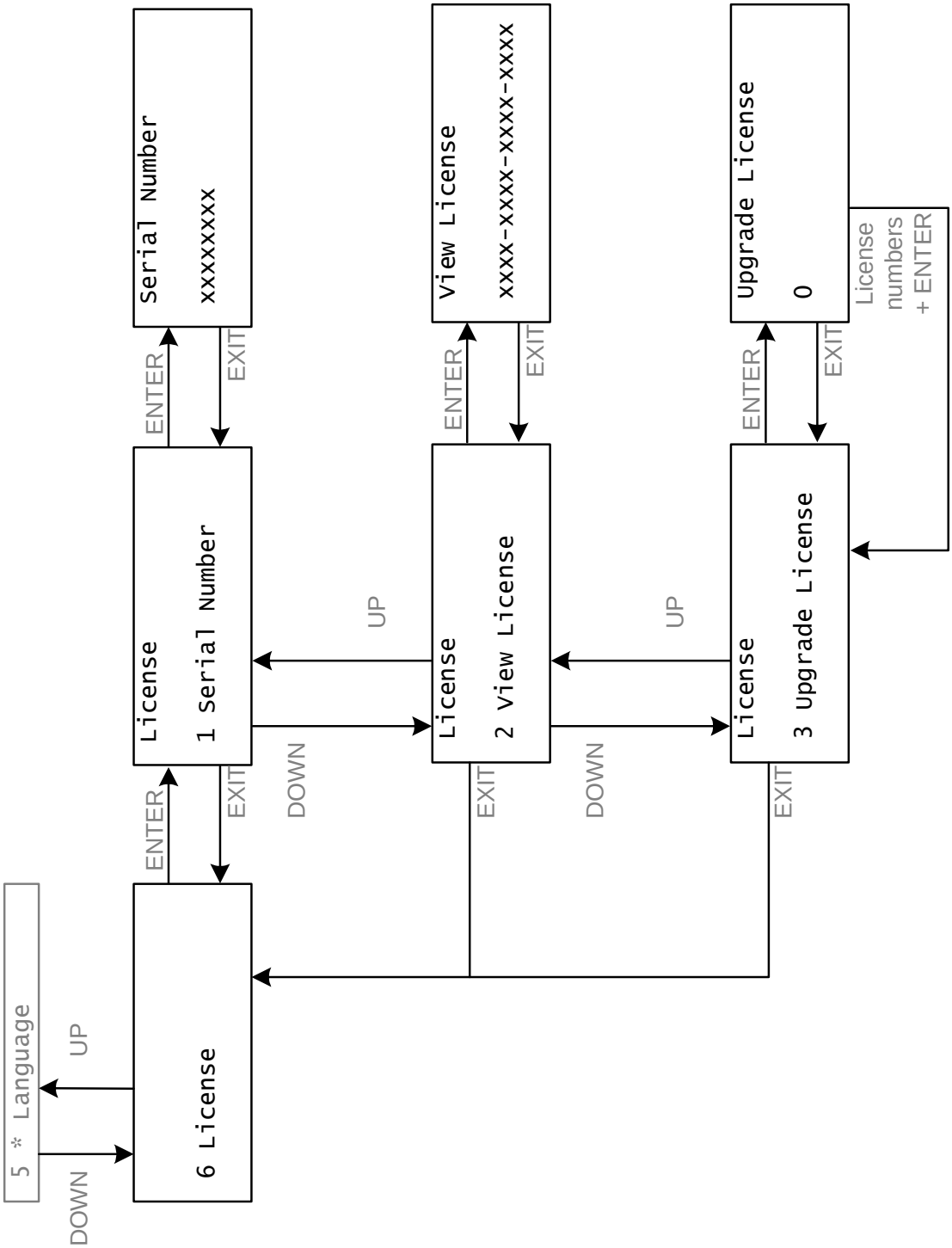
System menu (2 of 2)



Language menu (1 of 1)



License menu (1 of 1)



9. Analog Output Panel

9.1. Introduction

The AOP is an optional analog output to be used if the external outputs on the central unit are not sufficient. The outputs are often used to connect language distribution or recording system.

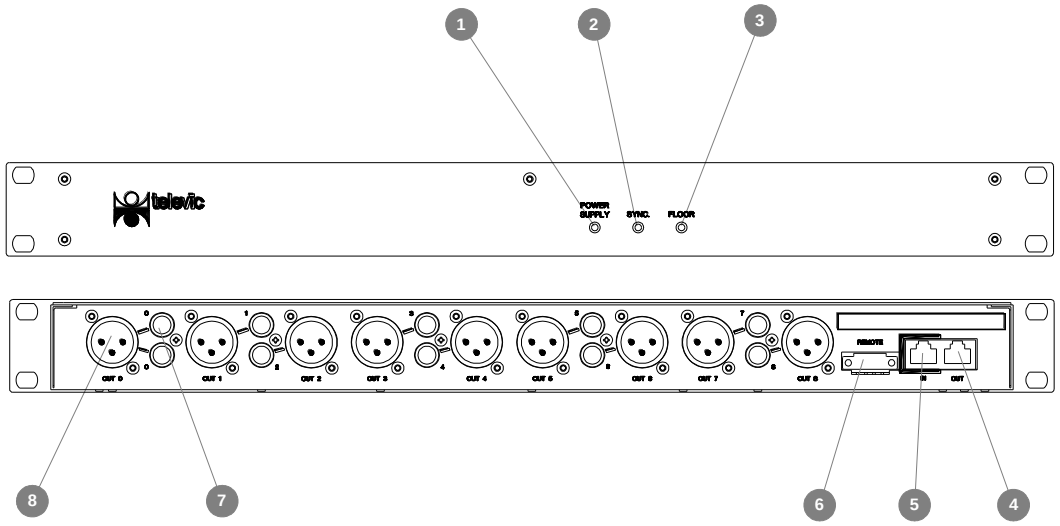
In total a maximum of 4 AOP units can be connected in daisy chain. Be aware that in case several units are interconnected there is a need to configure the units. (refer to Configuration)

The units is powered from the central unit over the Cat5 cable.

9.2. Controls and indicators

The output panels have following features:

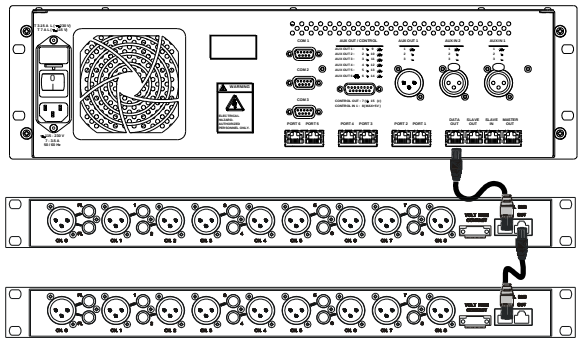
1. Power LED:
   LED illuminates AOP powered correctly
2. Sync LED:
   LED illuminates when data is in sync
3. Floor LED:
   illuminates when floor channel is active
4. RJ45 OUT:
   Connection to an additional AOP
5. RJ45 IN:
   Connection with central unit DATA OUT port
6. Phoenix connector:
   Voltage free contact, active when a microphone is active.
7. Cinch analog output
8. XLR 3F analog output


1
2
3
POWER SUPPLY
SYNC.
FLOOR
8
7
6
5
4

9.3. Installation

The IN port of the AOP unit is connected on the DATA OUT port of the central unit with a shielded Cat 5 patch cable.

To cascade several AOP units (max 4), the OUT port of the first AOP needs to be connected to the IN of the next AOP.



9.4. Configuration

The channels on the output can be configured. Below a description of the possibilities and how to make the configuration:

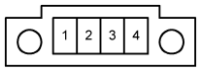
- CH 0 is always the floor channel
- CH 1 is the reference channel and is configured by hardware. The other channels are the next consecutive channels of the reference channel (CH1)
- The configuration of the channel 1 depends on the rotary and DIP switches. See table below for the configuration. The value of channel 1 is the sum of the rotary switch and the DIP switches
- The value of the rotary switch is marked on the switch
- The value of the DIP switches is 0 if both switches are OFF, in all other cases the value is 16

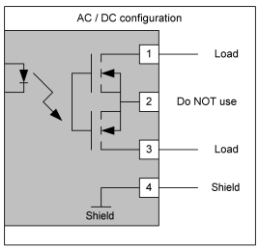
		Configuration table										
DIP switches		Rotary switch	CH0	CH1 (ref.)	CH2	CH3	CH4	CH5	CH6	CH7	CH8	
2	1											
OFF	OFF	0	0	0	1	2	3	4	5	6	7	
OFF	OFF	1	0	1	2	3	4	5	6	7	8	(**)
OFF	OFF	2	0	2	3	4	5	6	7	8	9	
OFF	OFF	…	0	…	…	…	…	…	…	…	…	
OFF	OFF	F	0	15	16	17	18	19	20	21	22	
(*)	ON	0	0	16	17	18	19	20	21	22	23	
(*)	ON	1	0	17	18	19	20	21	22	23	24	
(*)	ON	…	0	…	…	…	…	…	…	…	…	
(*)	ON	4	0	20	21	22	23	24	25	26	27	
(*)	**ON**	**5**	**0**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	

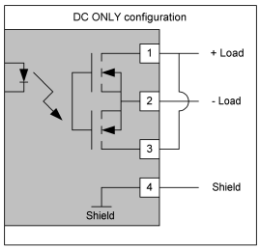
- (*) = don't care (**) = Default settings

9.5. Remote Control

The unit has a voltage free contact that is closed whenever a microphone is active. When no microphone is active the contact is open. Please see below for the pin assignment of the Phoenix connector.







Maximum load current
Continuous = 1A

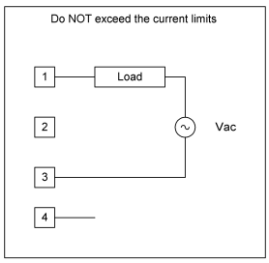
Maximum load voltage
60V

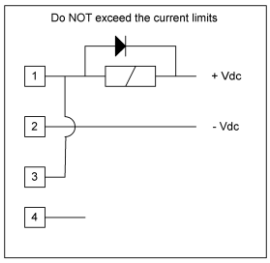
On-resistance = 0.5 Ohm

Maximum load current
Continuous = 1,8A

Maximum load voltage
60V

On-resistance = 0.5 Ohm





The Phoenix connector is directly connected to the LCA710 driver IC.

10. System cables

The system cables used as connection between the central unit and the contribution equipment, and from unit to unit is Cat5e AWG 24 FTP cables with shielded RJ45 plugs. The length of the system cables may range between 0.5 m and 80m.

With the cables, it is possible to:

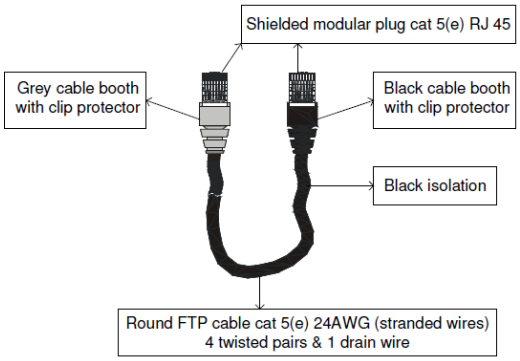
- Interconnect the delegate units
- Interconnect up to 40 central units for setting up large conference systems
- Interconnect with an analog output panel.

Televic has standard pre-made cables available in different lengths:

ICC5/2	2 m
ICC5/5	5 m
ICC5/10	10 m
ICC5/20	20 m

The voltage level at the output of the central unit is 48 V. A voltage drop can be is caused by the length of the cable and the amount of units. It is necessary for a working system that the last unit of the branch should receive 36 V.

For more details, use the power calculator.



11. Software Suite

For more advanced control and visualization purposes the Televic Software suite can be installed on one or several PC's.

There are several licenses available in the software suite.

Microphone management (S-MM)

- Initialization and configuration
- Conference control
- Synoptic overview
- Nominative overview
- Speaker list / Speech time

Delegate management (S-DM)

- Linking delegate information as name, party … to physical microphones.

Voting management (S-V), with badge (S-VB)

- Agenda
- Voting configuration
- Voting result management
- Printing / archiving results

Each package needs all the licenses listed before the specific license. An example:
Voting management (with or without badge) will also require the delegate and microphone management software licenses.

It is possible to have two PC's to control and guide the conference. The second control PC will be configured as slave and communicates over the LAN to the master PC.

Visualization management (S-VD)

- Synoptic overview

- Speaker and Speech time visualization
- Voting result visualization

To output a synoptic overview, speakers list, speech time the license S-MM and S-DM are also required.

When used to display voting results all the licenses are required (S-MM, S-DM, S-V or S-VB and S-VD)

The visualization software runs on a separate PC to generate the output to a screen or projector. It connects to the master PC over the LAN network to receive the required information.

The license management is controlled via a USB dongle that needs to be inserted on the master PC.

The control of the interpretation system is a separate application and connection:

Interpretation management (S-IM)

The connect the PC's to the central unit, please refer to Chapter (RS232 Connection)

For more info on the software please refer to specific documentation.

Section 3 – System Design

12. Conference network setup

12.1. Interconnecting units

All connections are established by Cat5 cables with RJ-45 shielded connector. For more info about the cables, please refer to chapter(System cables).

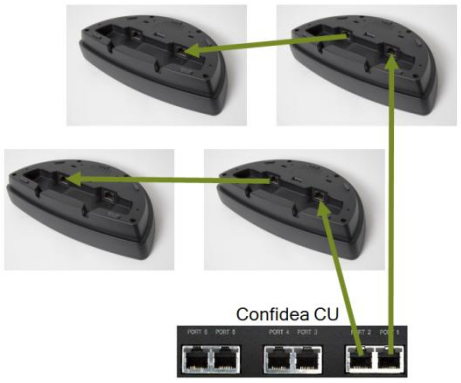
The units are interconnected in a daisy chain principle, meaning from one unit to the other.

Depending on the type of units to be interconnected, some considerations should be taken into account.

The following chapters explain the way units should be interconnected depending on the product types used.

12.1.1. Confidea wired

The wired Confidea contributor units have an automatic port sensing feature. This means that it doesn't matter which port to use, the units will automatically define whether it is an input or output.



Different types of Confidea contributor units can be mixed in one branch (L-CV,L-DIV,L-DI,…)

12.1.2. Flushmount panels

The integrated contributor flushmount units don't have the automatic port sensing feature. As a result it is important to respect the dedicated input and output ports.

The system cables have a grey and a black connector. To prevent wrong connection Televic proposes to use the following convention: grey connector is used for the inputs, black connector is used for the outputs.

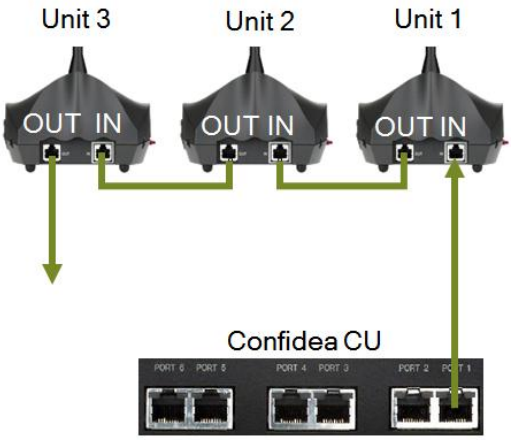
Different types of integrated flushmount contributor units can be mixed in one branch (FC/M, FC/MV5B,FD/M,…)

12.1.3. Interpreter unit

These interpreter units don't have the automatic port sensing feature. As a result it is important to respect the dedicated input and output ports.

The system cables have a grey and a black connector. To prevent wrong connection Televic proposes to use the following convention: grey connector is used for the inputs, black connector is used for the outputs.

The input port on the interpreter unit is surrounded with a grey line. This makes it convenient recognize the IN port of the unit and connect the grey plug of the system cable.



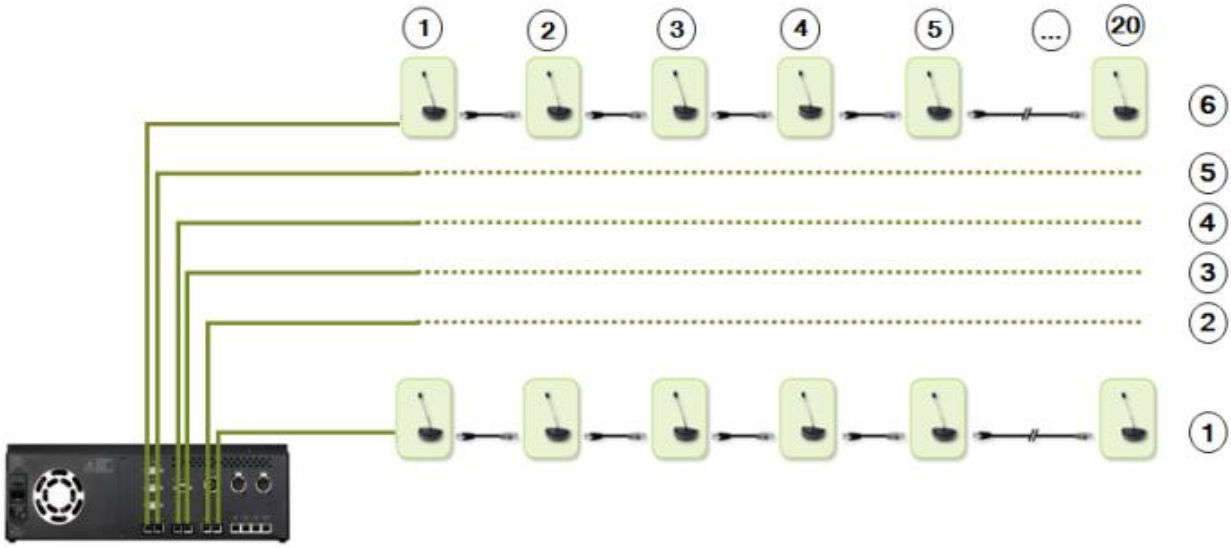
Note:
It is NOT allowed to connect devices with automatic port sensing (Wired Confidea contributor units) and devices without automatic port sensing (Integrated flushmount contributor panels, interpreter units) in the same branch !

12.2. Connection to the central unit

12.2.1. General setup

After interconnection of several contributor units, the branch of units needs to be connected to one of the digital port of the Confidea CU:

- Confidea CU has 6 digital branches.
- Each branch supports up to 20 units (6 *20 = 120 units)
- The cable length toward the first unit shall not exceed 80m.
- The cable length between the units shall not exceed 80m



12.2.2. Dual branch Redundancy

The disadvantage of a system using the daisy chain interconnection principle is the fact that in case cabling or unit failure occurs all units connected after the failure will stop functioning.

Normal operation:

Cable failure:

Unit failure:

Due to the fact that the Confidea wired contributor units have the automatic port sensing feature it is possible to add a redundancy feature to the system.

Closing the loop by returning from the last unit in a branch to a port of the Confidea CU redundancy is added to the system.

Cable failure:

Unit failure:

Whenever there is a cable or unit failure in this setup the system will continue normal operation by changing the signal flow and thus creating two separate branches, hence the feature is named, dual branch redundancy.

As a consequence the total number of units connected to one central unit is reduced to maximum 60 units (3 x 20 max)

Note:
The dual branch feature is only available on branches that use contributor units with the automatic port sensing feature (Confidea wired) Do not use this configuration for branches with Integrated flushmount or interpreter units

12.3. Connecting the PC to the central unit

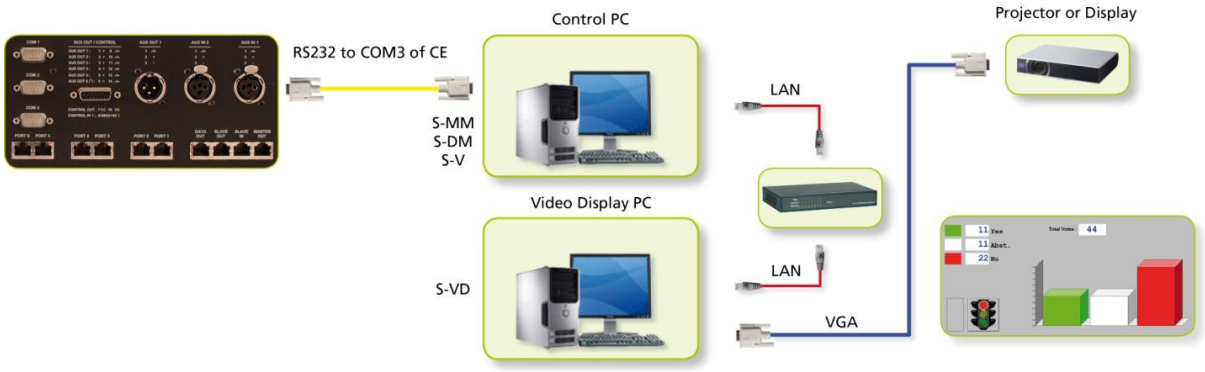
The PC software consists out of two different parts. The two distinguishable parts are the microphone management software (TMS2500) and the interpreter management software (TIS2500). To connect the PC to the Confidea central unit, there will be need for two serial ports on the PC. One serial port is necessary for the conference management software and the other port is necessary for the interpreter management software. The COM ports of the central unit work at a speed of 19200 bits per second.

The port on the back of the Confidea central unit labeled COM 1 is the port associated with the interpreter management system (TIS2500).

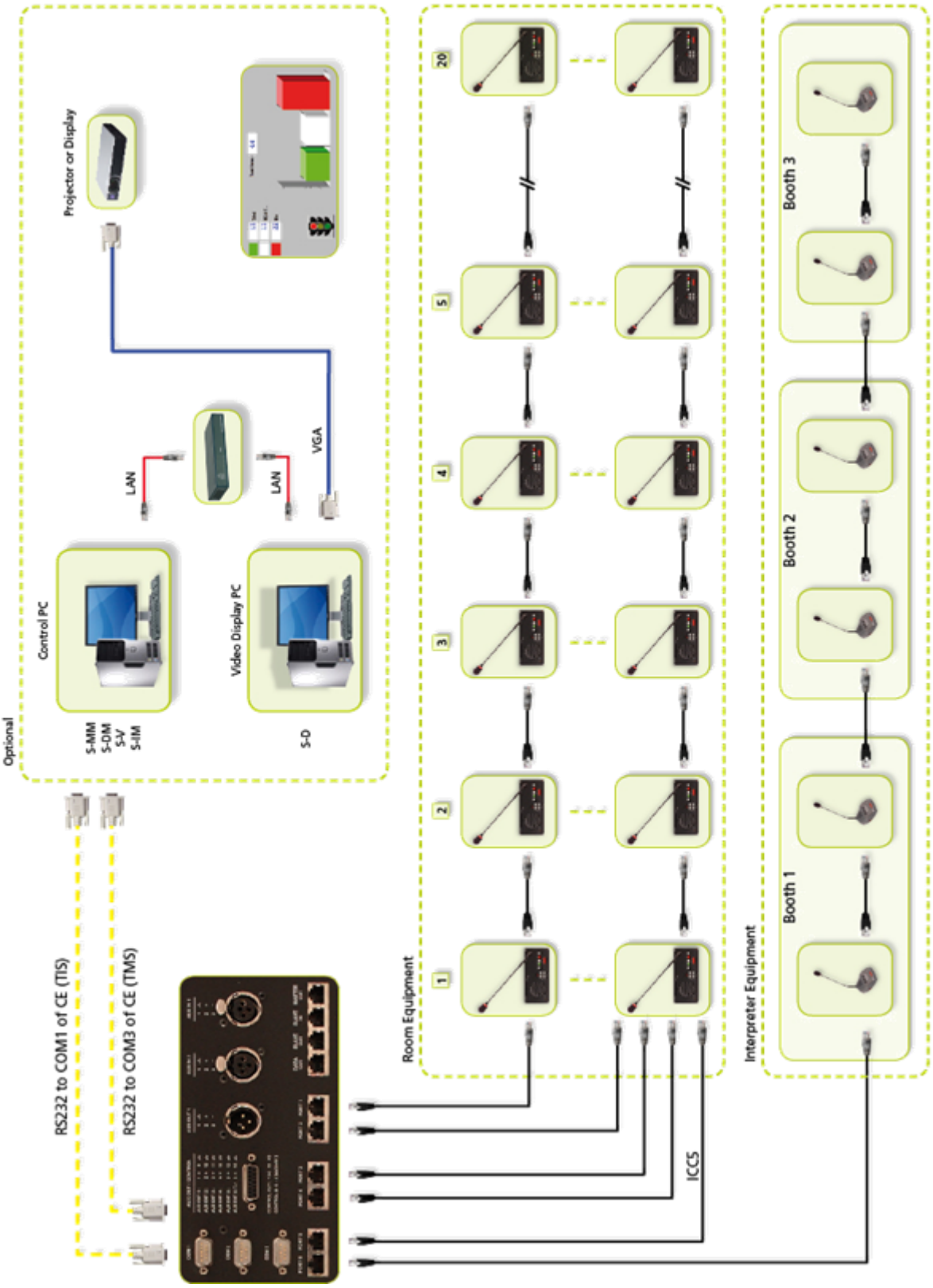
The port on the back of the Confidea central unit labeled COM 3 is the port associated with the microphone management system (TMS2500).

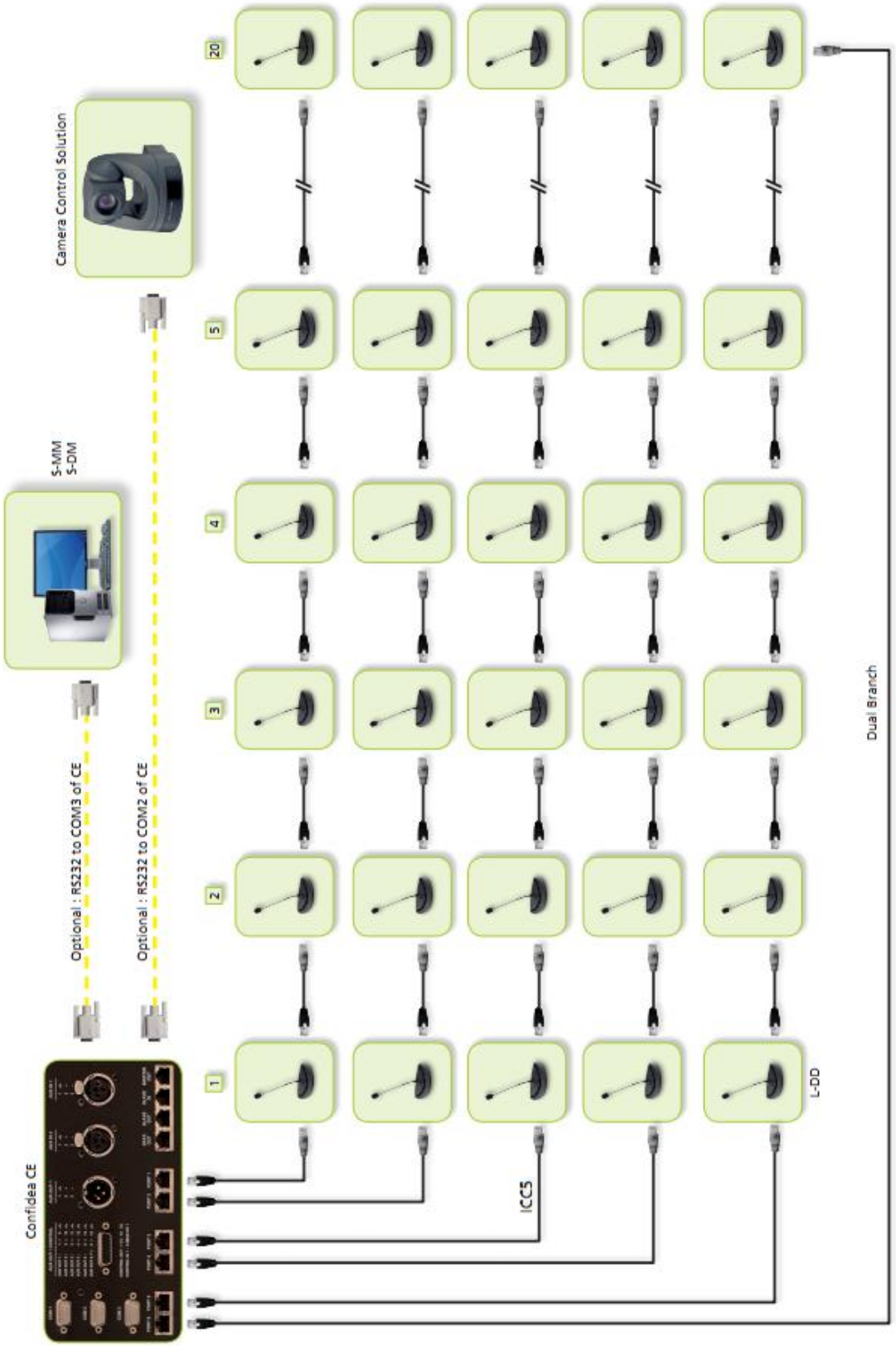
Note that the software versions will be checked at both sides before starting the communication. The PC will check if the CU version is compatible with the PC software version and the central unit will check if remote control is allowed by the pc that asks the connection.

The cables necessary to connect the central unit to the PC are described on the paragraph 'RS232 Connection



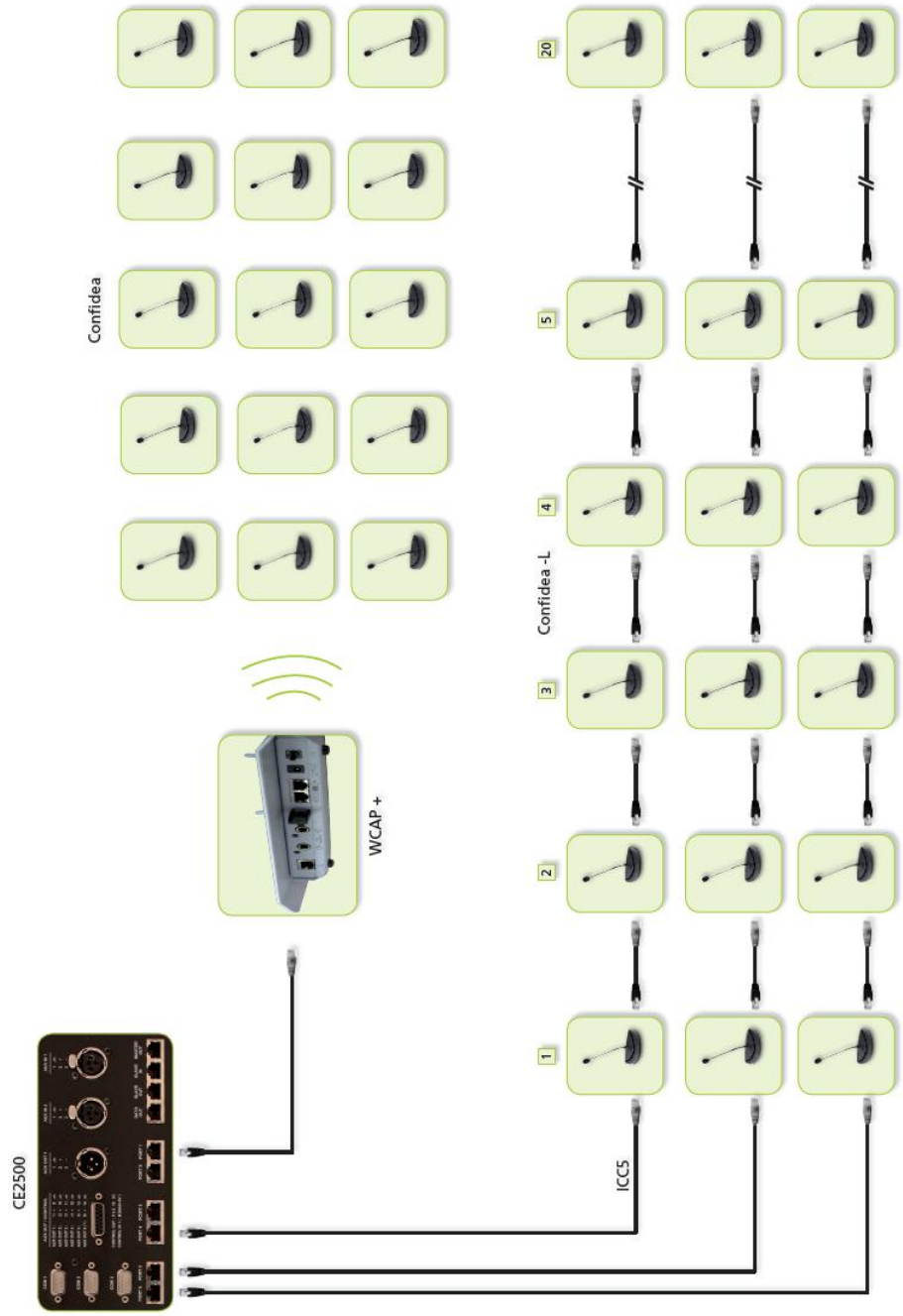
12.4. Examples of connections




Camera Control Solution
S-MM
S-DM
Optional : RS232 to COM3 of CE
Optional : RS232 to COM2 of CE
Confidea CE
ICC5
L-DD
Dual Branch
1
2
3
4
5
20

12.5. Confidea hybrid system (wired + wireless)

For more information how to connect the Confidea CU with Confidea wireless/ wired see the manual about Confidea wireless.



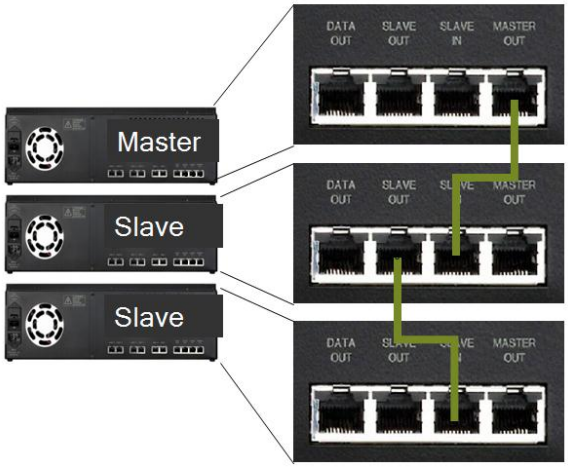
12.6. Master slave configuration

Whenever an installation requires more than 120 units the system can be extended using several Confidea CUs, called a master / slave configuration.

Implementing such configuration the system can be extended to a maximum of 1024 units. One Confidea CU acts as master whereas the other central units are configured as slave units.

The central unit has three dedicated ports to establish a master / slave configuration.

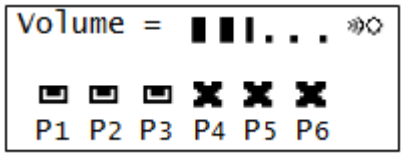
Picture below shows the connection of a master / slave configuration:



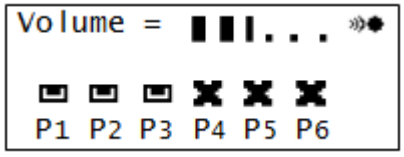
- Connect the MASTER OUT port of the Master Confidea central unit to the SLAVE IN port of the next Confidea central unit.
- In case multiple slaves central units are needed, connect the SLAVE OUT from the first slave central unit to the SLAVE IN of the next slave.

	Central unit in master mode
	Central unit in slave mode

To indicate that a central unit is able to work as a master central unit, press the F2 button for about 3 seconds. Now the master sign will be visible in the top righter corner on the menu display.



To configure the central units as slave press the F2 button for about 3 seconds. The slave sign will appear in the righter corner of the menu display.



Removing the master out cable on the master central unit, all central units will revert to stand-alone mode, displaying the master sign.

Reinserting the cable will re-establish the master / slave configuration.

Another way to switch to standalone mode can be established as described below:

- Press F2 for about 3 sec on the master central unit.
- Press F2 for about 3 sec on all the slave units

The menu of a slave central unit cannot be accessed. This means that all settings need to be done on the master central unit. For example: initialization of the units, volume settings…

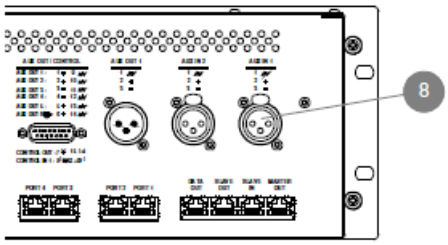
In master / slave mode only the aux inputs and outputs of the master will be operational.

12.7. External equipment

Connecting audio sources

Via the XLR-3F socket of the Confidea central unit, external audio sources which output a balanced mono signal can be connected to the central units Aux1 or Aux 2. External audio sources are, for example:

- wired microphones,
- wireless microphones,
- the audio channel of a video,
- a CD player,
- etc.



Signals connected to the Aux IN are always mixed on the floor channel.

Connecting to a Public Address System

Via the central units XLR-3M analog audio output, a PA system can be connected to transmit the floor channel towards the room speakers or in case needed to e.g. foyer or another room.

Transmitting channels to recording / Infrared system / broadcasting service, …

The Confidea system allows to transmit the floor speech via the XLR aux output or audio out1 connection of the SUB-D output connector.

In addition to the floor output up to five interpreter channels can be configured on the Sub D audio OUT 2-3-4-5-6 connections. (Unbalanced). For more information please refer to chapter (Sub D 15 OUT connection)

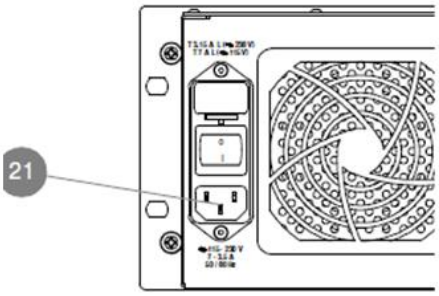
By adding an AOP2500 unit to the system the floor plus 8 interpreter channels can be outputted. The first interpreter channel can be configured. The other outputs will contain the consecutive interpretation channels. The outputs are available in both balanced or unbalanced. For more information please refer to chapter (Analog Output Panel)

12.8. Powering the Confidea Cu

The conference and interpretation units are “factory prepared” to allow immediate use, i.e. after unpacking a unit, the units can simply be plugged into a central unit and be initialized.

Central unit

- Connect the mains cable to the appropriate socket (21).
- Connect the mains cable to the mains (100-240 V, 50-60 Hz).



Section 4 – The Menu explained

13. Conference menu

A number of default settings are loaded into the system once the central unit boots. These default values ensure a correct operation of the conference system. (See Default Settings)

However, contribution units need to be initialized in order to function.

13.1. Initialization

Using the conference system for the first time it requires initialization of the units. There are two possible ways doing so:

- Automatic init
- Manual init

13.1.1. Automatic init

If the order in which the units are initialized is irrelevant, automatic initialization is the easiest way. Starting the automatic init by pressing the ENTER button, the central unit will initialize all units connected to the system.

13.1.2. Manual init

If the order in which the units are initialized is of great importance, it is advisable to use the manual init option.

Full init

Activation this option, all units connected to the system will start to blink. Pressing the microphone button of a unit, the central unit will be notified and register the units in its init list. If the unit is accepted the signaling LEDs will stop blinking. Repeat this action by initializing the units in the desired order.

Note that the initialization does not affect the interpreter desks. These are managed separately.

Add unit

The *add unit* option can be used in case you already have a room setup and want to add some units. Activating this option, all units unknown to the system will start to blink. Press the microphone button to add them to the system.

Delete unit

In case you want to remove a unit from the configuration select the number of the unit in the D*elete unit* menu and confirm by pressing the ENTER button. The unit can now be removed out of the system.

Reserve unit

If you want to reserve some microphone numbers for later use the following procedure should be followed:

- Enter the *Manual init – Full init* menu
- Start the full init and exit the menu without initializing units
- Activate the R*eserve unit* menu and enter the numbers you want to reserve.
- After you have reserved the necessary numbers you can initialize the units by pushing the microphone buttons.

In case you want to add the number somewhat later the following procedure needs to be applied:

- Delete the reserved number via the *Delete unit* menu item
- Connect the unit to the system
- Go to the *Add unit* menu and press ENTER
- Press the microphone button of the unit you have just added
- The unit will now have the previously reserved number

Note that all previous reserved numbers will be cleared once the Manual init – Full init is saved by pressing enter.

13.2. Operating Mode

Selecting a certain conference mode will strongly influence the way a meeting is held:

- Level of control of the chairman
- Determine whether participants can take the floor immediately or need to "request" the floor.

A chairman can always active his microphone regardless of the operating mode. Deactivating all active units is possible with the PRIOR button. In some modes the NEXT button will activate the next delegate in the queue list. It is possible to have multiple chairmans in the meeting. These can be assigned menu item.

In total 10 different modes are available. Note that the No request mode will only work when a PC is connected to the system with the software control suite.

Below a description of the different modes:

- *No Request*: In this mode the conference operator has total control over the microphone. He can activate or deactivate microphone via the conference software suite.
- *With request:* Enables the participant to send a request to the chairman or conference operator by pressing the microphone button (or to cancel his request by pressing the microphone button again). Once the floor is requested, the green LED above the microphone button will flash. The chairman or conference operator grants the participant the permission to talk by using the NEXT button or by clicking microphone on the computer screen.
- *With request no clear*: Same as *With request* mode, but the participant can't cancel his request.
- *Direct Access*: Enables the participant to turn on his microphone at any given time. The only limitation is the maximum number of microphones which may be active simultaneously.
- *FIFO*: Enables one microphone to be active at all times. Activation of a new microphone will deactivate the current active microphone unit.
- *Group 1:* Enables one microphone to be active at a time without a request for activation. Other participants may put their microphone in request; the first applicant in the queue gets the floor when the active delegate turns off his active microphone or when the chairman or conference operator grants the participant the permission to talk using the NEXT button or by clicking the green microphone on the computer screen.
- *Group 2*: Same as Group one but with two active microphone at the same time.
- *Group 3*: Same as Group one but with three active microphone at the same time.
- *Group 4*: Same as Group one but with four active microphone at the same time.
- *Override*: Same as the FIFO mode, with the alteration that a number of participants can have the floor at the same time. The number is determined by the "Max # Microphone" option.

13.3. Microphone Limit

The maximum open microphones at the same time can be set in this menu option. The maximum numbers of open microphones can vary from 1 up to 15.

13.4. Loudspeaker

The loudspeaker menu item controls the volume, low, middle and treble audio settings of the conference units. Once the settings are saved, these values are automatically restored once the system boots.

13.5. Microphones

The Microphones menu item alters the audio settings of the conference unit's microphone.

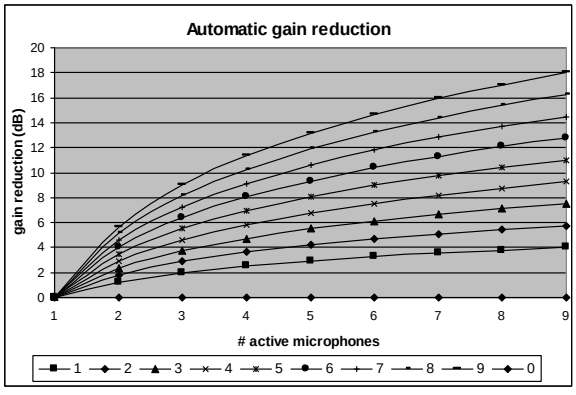
Following settings can be adjusted:

- Automatic gain reduction
- Bass
- Middle
- Treble
- Limiter Gain

Automatic gain reduction

The automatic gain reduction indicates how much the gain will be reduced when multiple microphones are active. The higher the number, the more reduction will be applied for multiple microphones.

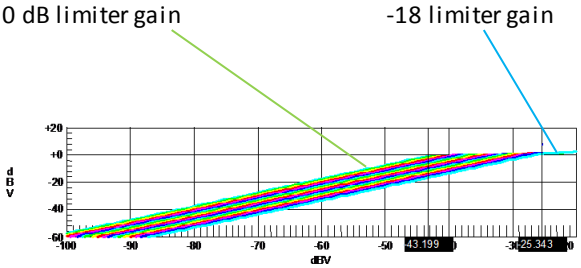
The following graph shows the automatic gain reduction in function of the number of microphones that are active. The gain reduction is indicated in dB and referenced to the gain for one active microphone. Each line of the graph indicates automatic gain reduction settings that can be set on the central unit. Note that although the maximum number of microphones is 15, the curve stops at 9. When more than 9 microphones are activated the gain reduction will remain the same.



Limiter gain

This option adjusts the limiter gain option of the microphones by setting the desired offset value in dB.

This setting determines the reach of the microphones. So it is possible to exclude the noise in a room from amplifying. Lowering the limiter gain will result in a shorter reach, or otherwise stated: only the sound of sources close to the microphone will be amplified.



13.6. Chairman

Up to 50 chairman units can be assigned in one conference configuration. Note that also delegate units can be set as chairman. In this case they will always have the possibility to activate their microphone.

Entering the Set Chairman menu item, a chairman index number ranging from 1 to 50 can be linked to a microphone number.

The chairman list can be cleared by entering the Clear Chairman menu item and hitting the ENTER button.

Note:
When delegate units are reinitialized, the chairman settings are cleared.

Note:
When the conference room is controlled by a PC, the local chairman settings will be overwritten by the PC settings.

13.7. Reset

The Reset menu option initiates a reset of the microphone system. The interpretation units are not affected by this reset command.

13.8. Options

This menu contains three items, being Test Tone, Test units and Light Ring.

The Test Tone option generates a on the loudspeakers of the delegate units.

The Test Units option will activate the microphone of all delegate units in the sequence they were initialized.

The Light Ring option allows setting the behavior of the red signal ring of the microphone of the delegate units. The light ring on the units can be chosen to blink along with the green request led on the on the unit whenever the microphone unit is in request.

14. Interpretation menu

14.1. Configuration

The configuration menu allows making a new configuration, altering the settings of the current configuration or loading a previous stored configuration with certain language regime.
In the new and current menu booth settings Language, Autofloor and B-channel can be set.
Always remember to save the settings for each booth. At the end of the configuration of all booths you can chose to save the interpretation configuration as Config1 or Config2. Not saving the settings or exit leaves the current configuration unchanged even when you began a new configuration.

New Configuration

Creating a new configuration will clear the previous settings of the interpretation system. The setting for each booth can now be configured (see Booth Configuration)

Make sure to set the correct amount of booths and desk as your installation requires in the options menu (See Options)

Note:
Don't forget to save the configuration as Config1 or Config2 after you altered and saved the settings of each booth.

Current Configuration

Entering this menu you can make corrections on the current configuration without deleting the settings for each booth previously configured.

Saving Configuration

After altering the settings of each booth you will be asked to save the configuration. You can save two configurations in total. Not saving the configuration brings the interpreter system in the same state as it was before you entered the configuration menu.

Load Configuration

A previously saved interpreter configuration can be loaded. After a load there will automatically be a reset which will reboot the interpreter system without affecting the conference system.
Not only the language settings for each booth will be loaded but also the parameters in the option menu and the initialization settings that were made after you saved the configuration file.
Although, you can alter these parameters and initialization settings after a load without affecting the language settings for all booths.
In this case a reboot will be necessary. This can be done by activating the reboot in Reset menu item.

14.2. Booth Configuration

A Channel

The A channel is the language to which the booth is assigned.

B Channel

The B channel is a second language an interpreter understands and speaks fluently.

In short: a translator may be responsible for multiple languages. To be able to translate to these languages the interpreter configures his interpreter desk accordingly.

The A channel is the main language the interpreter is responsible for (which cannot be changed from the interpreter desk) and the B channel is the second language an interpreter is responsible for (which can be changed from the interpreter desk)

When accessing the B-Channel menu you get a numeric choice. These numbers represent the different booths in the system. This option is used to assign a specific language as default B-Channel after

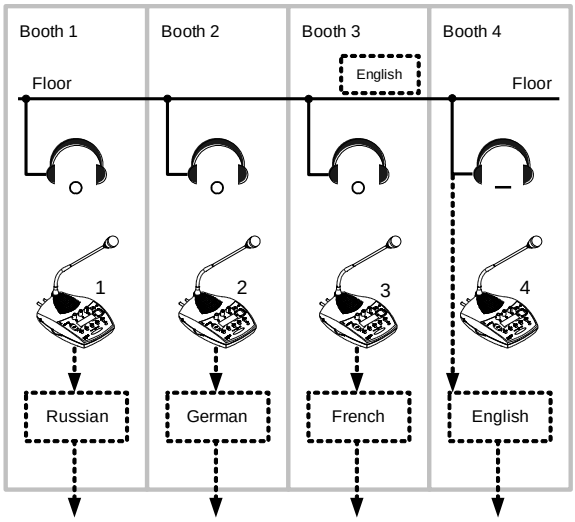
startup of the system. Remember the B Channel can be changed on the interpreter desk.

Auto Floor

The auto-floor setting is used in situations where interpreters are unfamiliar with the floor speech and are therefore unable to translate it. To prevent this situation an automated relay function is implemented. An interpreter assigned to translate the rare floor speech, translates it into another language easily understood by the other interpreters. The original floor is replaced by the transferred interpretation; called auto-floor is used as the base for further interpretation.

Below you can find two illustrations explaining a normal and auto-floor situation.

Figure 14.1 : Normal interpretation situation

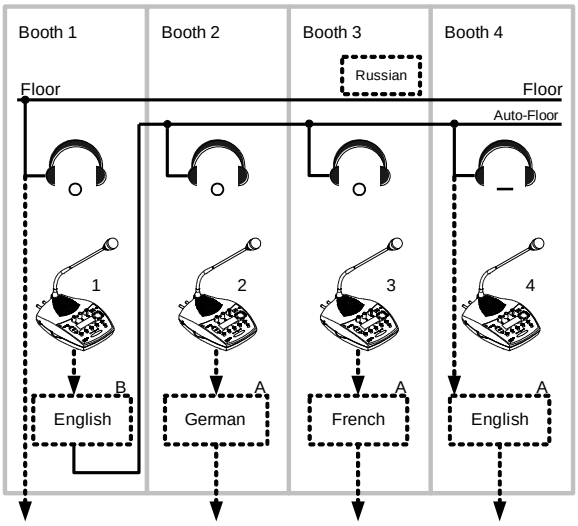


The illustration above shows a normal interpretation situation where every interpreter translates the floor language.

In the illustration (Figure 14.2 Auto-floor) Russian is the floor speech and the auto-floor option is enabled for the interpreter desks in the Russian booth. This interpreter selects outgoing and automatically relays an English translation of the floor speech as auto-floor to the other interpreter desks.

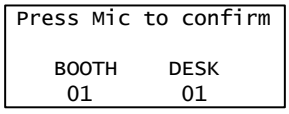
The auto-floor indication led is activated on these interpreter desks.
The auto-floor only concern the interpreter side of the system, the floor channel at the delegate side will not change.

Figure 14.2 Auto-floor



14.3. Initialization

When the full initialization of the interpreter system is executed, all of the red signal rings of the interpreter units will start flashing. The screen following screen will appear on all interpreter desks.



Configuration of the booth and desk number need to be performed on each interpreter unit. Press the MICRO button to send the configuration data to the central unit. You will notice that the other booths will increment their BOOTH / DESK value. This allows you to step through the initialization without much configuration.

You can end the initialization at the central unit after you have initialized all interpreter desks.

Once the initialization is done, the LCD displays of the interpreter units will show the different channels (A & B) and some other information.

If something went wrong during initialization then the interpreter units will display an init refused screen. When this happens you should try to reinitialize your booths. If this doesn't correct the problem check your booth configuration.

The Initialize Units menu also has an Add Unit menu option. Adding one interpreter desk in a certain booth can be performed with this option. The red signal rings of the interpreter desks will start to flash again and they will all show the initialization screen. You do not have to reconfigure the interpreter desks you already initialized previously. You can directly go to the new interpreter unit. Configure the booth and desk number of the new interpreter unit and confirm your configuration.

14.4. Reset

Whenever you have made changes to your configuration it is advised to reboot the interpretation system. Rebooting the interpretation system doesn't affect the conference system. This means that changes can be made to the interpretation system during the conference.

14.5. Options

A total of 28 different booths can be configured on the Confidea CU. Within each booth it is possible to have 8 interpreter desks.

Booth Limit

The maximum number of booths determines the number of languages a conference will support.

Note:
The number of interpreter languages supported by your Confidea CU depends on the license you have purchased. A standard system can configure 4 languages.

Desk Limit

The maximum number of desk defines the number of desks each booth may have.

Mode between Booths

This setting defines how booths will interact with each other. There are three modes available:

Mixed mode:

Several interpreters can translate to the same language. The audio signals of the translation are mixed and the interpreters are notified of this mixed audio signal by the flashing of their microphone indication led when they are translating simultaneously. For example, booth 1 is translating the floor language to French (on its A channel) and booth 2 starts to translate to French (on its B channel). The delegates in the conference room will hear the two translations mixed through their headsets. The interpreters are notified of this mixed audio signal by the flashing of the microphone led and the red signal ring.

Override:

Any interpreter microphone in another booth can override the current active microphone and become the active interpreter. The interpreter microphone that was overruled can't become active again until the booth responsible for the override deactivates its microphone.

Toggle Override:

Any interpreter microphone in another booth can override the current active microphone and become the active interpreter. The interpreter microphone set to non-active can become active for this translation by reactivating his microphone button.

Mode in Booths

This mode regulates the activity of active interpreters within a booth.

There are two options available:

Mixed:

Multiple interpreters may simultaneously translate to the same language. Whenever this happens they are notified by the flashing microphone led and the flashing red signal ring.

Override:

Any interpreter within the booth can override the current active microphone and become the active interpreter. The interpreter microphone that was overruled can't become active again until the booth responsible for the override deactivates its microphone.

15. Auxiliary Menu

15.1. Outputs

The Confidea CU has 6 auxiliary outputs. The AUX OUT 1 has a fixed output of the Floor and can't be changed. This output is available as an XLR-3M and the first output on the Sub-D 15 connector.
The volume difference between the AUX OUT 1 on the Sub-D connector and the XLR connector van be adjusted by changing the Volume XLR in the AUX OUT 1 menu item. By default there is no difference in volume between both outputs.

The other outputs, AUX OUT 2 – 3 – 4 – 5 – 6, are available on the Sub-D 15 connector. Pin assignment (See Sub D 15 OUT connection)

Two settings can be adjusted:

Volume:

The volume of the output can be adjusted to the desired level. The ENTER button needs to be pressed to save the volume level.

Channel:

The channel of a certain output can be adjusted. The channels which can be chosen depend on the license scheme of the central unit.

Status:

This setting enables or disables the selected output.

The headphone output at the front of the central unit follows the AUX OUT 6. The volume difference between the AUX out and the AUX OUT 6 can be adjusted by changing the *Vol. Headphone* in the AUX OUT 6 menu item. By default there is no difference.

15.2. Inputs

The central unit has two auxiliary inputs,labeled AUX IN 1 and AUX IN 2. The two inputs are both XLR-3F connectors.

There are a few settings that can be adjusted:

Level:

The level of the inputs can be adjusted to the desired level. Remember to save the changes by pressing the ENTER button.

Sensitivity:

The sensitivity of the input can be altered with this menu setting. The setting has two options : LOW and HIGH.

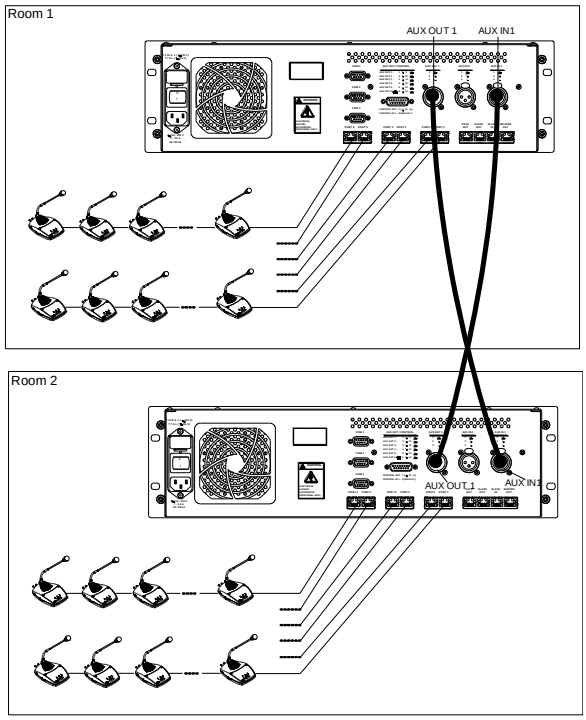
Status:

This setting enables or disables the selected input.

15.3. Remote Conferencing

Remote conferencing option gives the possibility to connect a central unit to e.g. a video conferencing system or telephone coupler. To prevent echoing the remote conferencing option needs to be set.

Below an illustration when connecting two conference rooms to each other.



Connecting both central units to each other the AUX OUT 1 of one room needs to be connected with the AUX IN 1 of the other room and vice-versa. In both central units the remote conferencing option needs to be activated.

Note:
The remote conferencing option only applies to AUX IN 1 and AUX OUT 1.

15.4. External Equalizer

To avoid feedback or to equalize audio signals it is possible to connect external equipment to the central unit. Setting the status to ON, the floor channel will be disrupted in a way that all inputs signals (except AUX IN 1) will be directly routed to the AUX OUT A. The signal present on AUX IN 1 will be used as the new floor channel. This way it is possible to use external audio equipment like equalizers and feedback destroyers. The schematic below summarizes this feature.

Figure 15.1: External Equalizers OFF

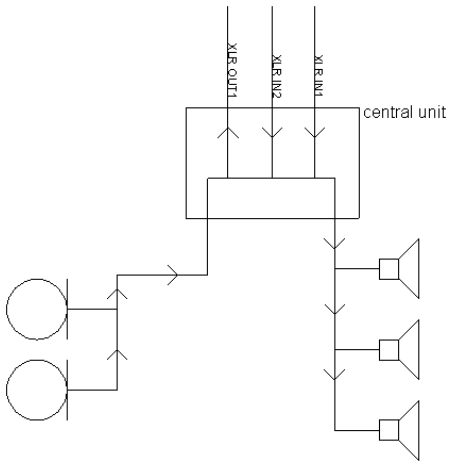
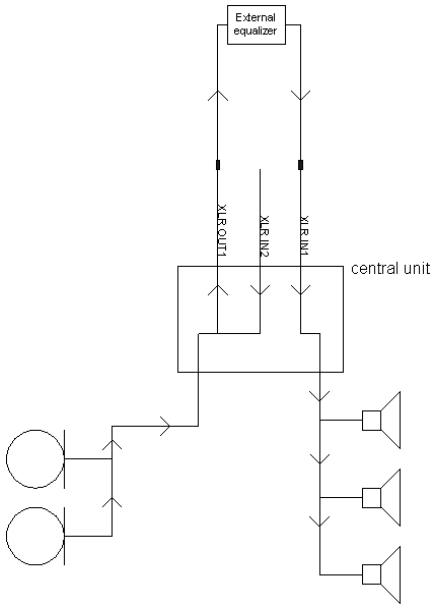


Figure 15.2: External Equalizers ON



Remark:

Setting the status of the external equalizer to ON will change some other settings automatically :

AUX IN status = ON
AUX IN level = 18
AUX IN sensitivity = HIGH (+12 dB)
AUX OUT 1 status = ON
AUX OUT 1 volume = 18 (Nominal)
Remote Conference = OFF
The settings can still be changed manually.

16. System Menu

16.1. Diagnostics

This menu shows an overview of the central unit ports. It can be used to check if communication errors on the ports of the CU.

There are several symbols indicating the status of the ports:

- This symbol indicates that conference units are connected to this port.
- This symbol indicates an unconnected or wrongly connected branch of conference units.
- This symbol indicates that communication errors occurred on this port. Pressing ENTER will reset the error indication.

16.2. Camera Control

This menu item activates the output of commands on COM2 of the central unit, used as input to camera control systems. More info regarding these commands please (refer to Camera Control Protocol)

16.3. Control Panel

It is possible to control some settings of the conference system via an external control panel (Crestron, AMX, …) connected to the COM2 port of the central unit. This control can be activation, deactivation of microphone, volume settings, changing the operation status, …

For more information on the possible commands please (refer to Control Panel Protocol)

16.4. Ambient Sound

This menu is still available in the menu but is no longer used.

16.5. Version

This menu option show the current version of the Confidea CU.

17. Language Menu

The central unit contains a menu structure in 6 languages:

- English
- French
- Dutch
- German
- Spanish
- Italian

18. License Menu

The central unit comes with a standard license for 4 languages and basic camera control.

Additional licenses can be applied to enable a higher number of interpreter languages.

The view license menu can be used to check serial number and the current license of the central unit.

This info is required in order to order additional licenses.

You will receive a new code with the following form:

XXXX-XXXX-XXXX-XXXX

The code is entered by selecting the appropriate value by turning the scroll wheel and pressing the ENTER button. Repeat this action till all values of the new license code are entered.

Section 5 – Appendix

19. Default Settings

Main Menu Item	Sub Menu Item	Item	Default Value
Conference	Operating Mode	Operating Mode	Direct Access
Conference	Microphone Limit	Microphone Limit	Max. Limit = 4
Conference	Loudspeaker	Volume	6
Conference	Loudspeaker	Bass	0 dB
Conference	Loudspeaker	Middle	0dB
Conference	Loudspeaker	Treble	0dB
Conference	Microphones	Automatic Gain Reduction	5
Conference	Microphones	Bass	0 dB
Conference	Microphones	Middle	0 dB
Conference	Microphones	Treble	0 dB
Conference	Microphones	Limiter Gain	0 dB
Conference	Options	Light Ring	OFF at Request
Aux-In/Out	Aux Out 1	Volume	18
Aux-In/Out	Aux Out 1	Volume XLR	24
Aux-In/Out	Aux Out 1	Status	OFF
Aux-In/Out	Aux Out 1	Remote Conference	OFF
Aux-In/Out	Aux Out 2	Volume	18
Aux-In/Out	Aux Out 2	Channel	1
Aux-In/Out	Aux Out 2	Status	OFF
Aux-In/Out	Aux Out 3	Volume	18
Aux-In/Out	Aux Out 3	Channel	2

Aux-In/Out	Aux Out 3	Status	OFF
Aux-In/Out	Aux Out 4	Volume	18
Aux-In/Out	Aux Out 4	Channel	3
Aux-In/Out	Aux Out 4	Status	OFF
Aux-In/Out	Aux Out 5	Volume	18
Aux-In/Out	Aux Out 5	Channel	4
Aux-In/Out	Aux Out 5	Status	OFF
Aux-In/Out	Aux Out 6	Volume	18
Aux-In/Out	Aux Out 6	Volume Headphone	24
Aux-In/Out	Aux Out 6	Channel	5
Aux-In/Out	Aux Out 6	Status	OFF
Aux-In/Out	Aux In 1	Level	18
Aux-In/Out	Aux In 1	Sensitivity	Low
Aux-In/Out	Aux In 1	Status	OFF
Aux-In/Out	Aux In 2	Level	18
Aux-In/Out	Aux In 2	Sensitivity	Low
Aux-In/Out	Aux In 2	Status	OFF
Aux-In/Out	External Equalizer	External Equalizer	OFF
System	Camera Control	Camera Control	OFF
System	Control Panel	Control Panel	OFF
System	Ambient Sound	Status	OFF
System	Ambient Sound	Loudspeaker	Switch off = NO
System	Ambient Sound	Aux Out	Switch off = NO

System	Ambient Sound	Aux In	Switch off = NO
Language	Choose Language	Language	English

20. Camera Control Protocol

20.1. Communication

The central units command port (COM2) can send out command to a camera control system. The commands are described below.

Connection between the Confidea CU and the control system is established with a RS232 connection. The communications port *COM2* operates at a speed of 19200 bits per second.

Below a complete overview of the settings of the communications port for the camera control:

Bits per second:	19200
Data bits:	8
Parity:	None
Stop bits:	1
Flow control:	None

20.2. Commands

All commands sent by the CU start with a '%' sign. The last character is a character which states the end of the transmission. Just before the end of transmission character, there are four characters within the command sent to the camera control which account for the CRC checksum. The CRC checksum is in uppercase hexadecimal form while all other numbers are in decimal form.

The protocol is described as follows:

STX '%' data CRC ETX

With:

STX = start transmit char (0x25 = '%')

ETX = end transmit char (0x0D)

CRC = 16 bit sum of the ASCII characters between STX and CRC

Notation to explain the messages sent. All separate entities in a message are represented between curly brackets. If the contents of such an entity is also between quotes (' ') then this means that this is a literal string. Otherwise it describes the logical entity. A logical entity will also contain a number between brackets. This number states how many characters the entity will exist of. If the subtext $_{1+}$ is attached to the entity between curly brackets, then this means that one or more occurrences of this entity may occur.

Some examples to clarify.

Whenever a microphone of a delegate or the microphone of the president is activated, then a command is sent out. Whenever an active microphone is deactivated, another command is sent to the camera control.

1. The microphone of the president is activated:

{'%'}{'P'}{Microphone number (4)} {CRC (4)}

2. The microphone of the president is deactivated:

{'%'}{'p'}{Microphone number (4)} {CRC (4)}

3. The microphone of a delegate is activated:

{'%'}{'M'}{Microphone number (4)} {CRC (4)}

4. The microphone of a delegate is deactivated:

{'%'}{'m'}{Microphone number (4)} {CRC (4)}

The remaining commands are control commands.

First microphone has been activated and the camera control should become active.

{‘%’}{‘1’}{‘R’}{‘00’}{{CRC (4)}

All active microphones are deactivated and the camera control should reset itself to a neutral starting position.

{‘%’ }{‘1’}{‘r’}{‘00’}{CRC (4)}

At a time-interval of around 5 seconds a synchronization message is sent to the camera control. The message contains all the numbers of the active microphones or the number 0 to stipulate that there are no microphones active.

{‘%’}{‘S’}{Microphone Number (4)}$_{1+}${CRC (4)}

All active microphones are deactivated simultaneously.

{‘%’}{‘V’}{‘0000’}{CRC (4)}

20.3. Examples

If the president microphone is activated, and the president microphone has the number ‘0001’ then the following message is sent: %P00010111

When the president microphone is deactivated, then the following message is sent: %p00010131

If a delegate microphone is activated, and that delegate microphone has the number ‘0003’ then the following message is sent: %M00030110

When the delegate microphone is deactivated, then the following message is sent: %m00030130

Suppose now that the delegate microphone with number ‘0003’ is active. On a synchronization check the synchronization message will look like this: %S00030116

Suppose now that the delegate microphones with number ‘0002’ and ‘0004’ are also active. On a synchronization check the synchronization message will look like this: %000300020004029C

When no microphones are active, then the following synchronization will be received: %S00000113

When the camera control system should reset itself to its start position, then the following message will be received: %1r000052

When all microphones are deactivated simultaneously, then the following message is received: %V00000116

21. Control Panel Protocol

21.1. Communication

The Confidea system can be controlled by control systems such as AMX, Crestron, … The commands which the control panel should understand will be described shortly.

Connection between the Confidea CU and the control system is established with a RS232 connection. The communications port *COM2* operates at a speed of 19200 bits per second.

Below a complete overview of the settings of the communications port for the camera control:

Bits per second:	19200
Data bits:	8
Parity:	None
Stop bits:	1
Flow control:	None

21.2. Commands

All commands sent by the CU start with a '%' sign. The last character is a character which states the end of the transmission. Just before the end of transmission character, there are four characters within the command sent to the camera control which account for the CRC checksum. The CRC checksum is in uppercase hexadecimal form while all other numbers are in decimal form.

The protocol is described as follows:

STX '%' data CRC ETX

With:

STX = start transmit char (0x25 = '%')

ETX = end transmit char (0x0D)

CRC = 16 bit sum of the ASCII characters between STX and CRC

We will adopt a certain notation to explain the messages sent. All separate entities in a message are represented between curly brackets. If the contents of such an entity is also between quotes (' ') then this means that this is a literal string. Otherwise it describes the logical entity. A logical entity will also contain a number between brackets. This number states how many characters the entity will exist of. If the subtext $_{1+}$ is attached to the entity between curly brackets, then this means that one or more occurrences of this entity may occur.

Maybe this notation seems a little hard to comprehend at first, but some examples should clarify them.

Whenever a microphone of a delegate or the microphone of the president is activated, then a command is sent to the control panel. Whenever an active microphone is deactivated, another command is sent to the control panel. This is also valid when a microphone goes into request.

The control panel is also able to send commands to the central unit. One command is sent to activate/deactivate a microphone. There is also a command that can be sent to the central unit if you want to reboot the control panel. Also the test generator can be activated or deactivated. Other commands allows you to alter the volume and conference mode.

We will divide the discussion of the commands into two categories. The first category describes the commands coming from the central unit and going to the control panel and the second category describes the commands coming from the control panel and going to the central unit.

The Commands sent by the central unit and receivedby the control panel:

1. A microphone is activated:

{‘%’}{‘1’}{‘L’}{Microphone number (4)} {CRC (4)}

2. A microphone is deactivated:

{‘%’}{‘1’}{‘l’}{Microphone number (4)} {CRC (4)}

3. A microphone goes into request:

{‘%’}{‘1’}{‘D’}{Microphone number (4)} {CRC (4)}

4. All microphone should be reset:

{‘%’}{‘E’}{‘00’} {CRC (4)}

The commands sent by the control panel and received by the central unit:

1. Activate/deactivate a microphone with number … :

{‘%’}{‘1’}{‘T’}{Microphone number (4)} {CRC (4)}

2. Restart the control panel and get information about the microphones to reinitialize the control panel:

{‘%’}{‘1’}{‘V’}{CRC (4)}

3. Set the volume and tone settings for the delegate’s loudspeaker. The POTVAL value represents the volume and must be a number between 0 and 12. Also the low, mid and high values must be numbers between 0 and 12.

{‘%’}{‘1’}{‘X’}{POTVAL(2)}{High(2)}{Mid(2)}{Low(2)} {CRC (4)}

4. Change the operating mode. In the table the MODE number is given for each operating mode.

MODE	Operating Mode	MODE	Operating Mode
00	*No Request*	05	*Group 1*
01	*With Request*	06	*Group 2*
02	*With Request No Clear*	07	*Group 3*
03	*Direct Access*	08	*Group 4*
04	*FIFO*	09	*Override*

{‘%’}{‘1’}{‘U’}{MODE(2)} {CRC (4)}

5. Turn ON the test generator:

{‘%’}{‘1’}{‘v’}{CRC (4)}

6. Turn OFF the test generator:

{‘%’}{‘1’}{‘w’}{CRC (4)}

7. Increment the volume for the delegate’s loudspeaker:

{‘%’}{‘1’}{‘x’}{‘o’}{‘001’}{CRC (4)}

8. Decrement the volume for the delegate’s loudspeaker:

{‘%’}{‘1’}{‘x’}{‘o’}{‘002’}{CRC (4)}

9. Toggle the status for Auxiliary Input port 1

{‘%’}{‘1’}{‘x’}{‘o’}{‘003’}{CRC (4)}

10. Toggle the status for Auxiliary Input port 2

{‘%’}{‘1’}{‘x’}{‘o’}{‘004’}{CRC (4)}

11. Toggle the status for Auxiliary Output port 1

{‘%’}{‘1’}{‘x’}{‘o’}{‘005’}{CRC (4)}

12. Toggle the status for Auxiliary Output port 2

{‘%’}{‘1’}{‘x’}{‘o’}{‘006’}{CRC (4)}

13. Toggle the status for Auxiliary Output port 3

{‘%’}{‘1’}{‘x’}{‘o’}{‘007’}{CRC (4)}

14. Toggle the status for Auxiliary Output port 4

{‘%’}{‘1’}{‘x’}{‘o’}{‘008’}{CRC (4)}

15. Toggle the status for Auxiliary Output port 5

{‘%’}{‘1’}{‘x’}{‘o’}{‘009’}{CRC (4)}

16. Toggle the status for Auxiliary Output port 6

{‘%’}{‘1’}{‘x’}{‘o’}{‘010’}{CRC (4)}

Any other commands sent over the serial channel from the central unit to the control panel should be ignored.

21.3. Examples

If a microphone is activated, and the microphone has the number ‘0001’ then the following message is sent to the control panel from the central unit: %1L0001013E

If the same microphone is deactivated, then the following message is sent to the control panel from the central unit: %1l0001015E

If the microphone with number ‘0002’ goes into request mode, then the following message is sent to the control panel from the central unit: %1D00020137

When all microphones should be turned of, then the following command is sent to the control panel from the central unit: %1E0000D6

When the control panel wants the central unit to activate a microphone, for instance the microphone with number ‘0002’, then the following command is sent: %1T00020147

When the control panel wants to restart the control panel and wants to receive the correct information about the active microphones and the microphones on request, then the following command is sent to the central unit: %1V0087

When the control panel wants to change the conference mode then the following command is sent to the central unit: %1U0400EA

When the control panel wants to mute the loudspeaker of all units the following command is sent to the central unit: %1X00060606021B.

The default volume setting can be set by sending the following command to the central unit: %1X060606060221