

Chapter 4 Interpretation unit

Simultaneous interpretation function of HCS-4100nG FDCS is designed for the requirements of large scale multilingual international conferences: it can provide up to 64 language channels (64CHs). Each interpretation unit is equipped with high light graphic LCD with backlighting, 64CHs languages, built-in speaker, pluggable microphone, earphone - headphone socket, etc. Channel number, language name, input language, quality indication, and short messages can be displayed on LCD. Multi input/output language channels, which can be preset with corresponding shortcut key, make it convenient for the interpreter to operate. Interpretation unit can be connected directly to trunk-link and easily be added to an existing system. Interpretation unit supports direct and relay interpretation function. In direct interpretation mode, the interpreter directly translates between the floor language and a preset language. In relay interpretation mode (with auto-relay facility) if the interpreter does not understand the floor language, he/she can listen to other interpreter's language and execute translation.

Product type:

HCS-4385K Interpretation unit

IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

4.1 Functions and indications

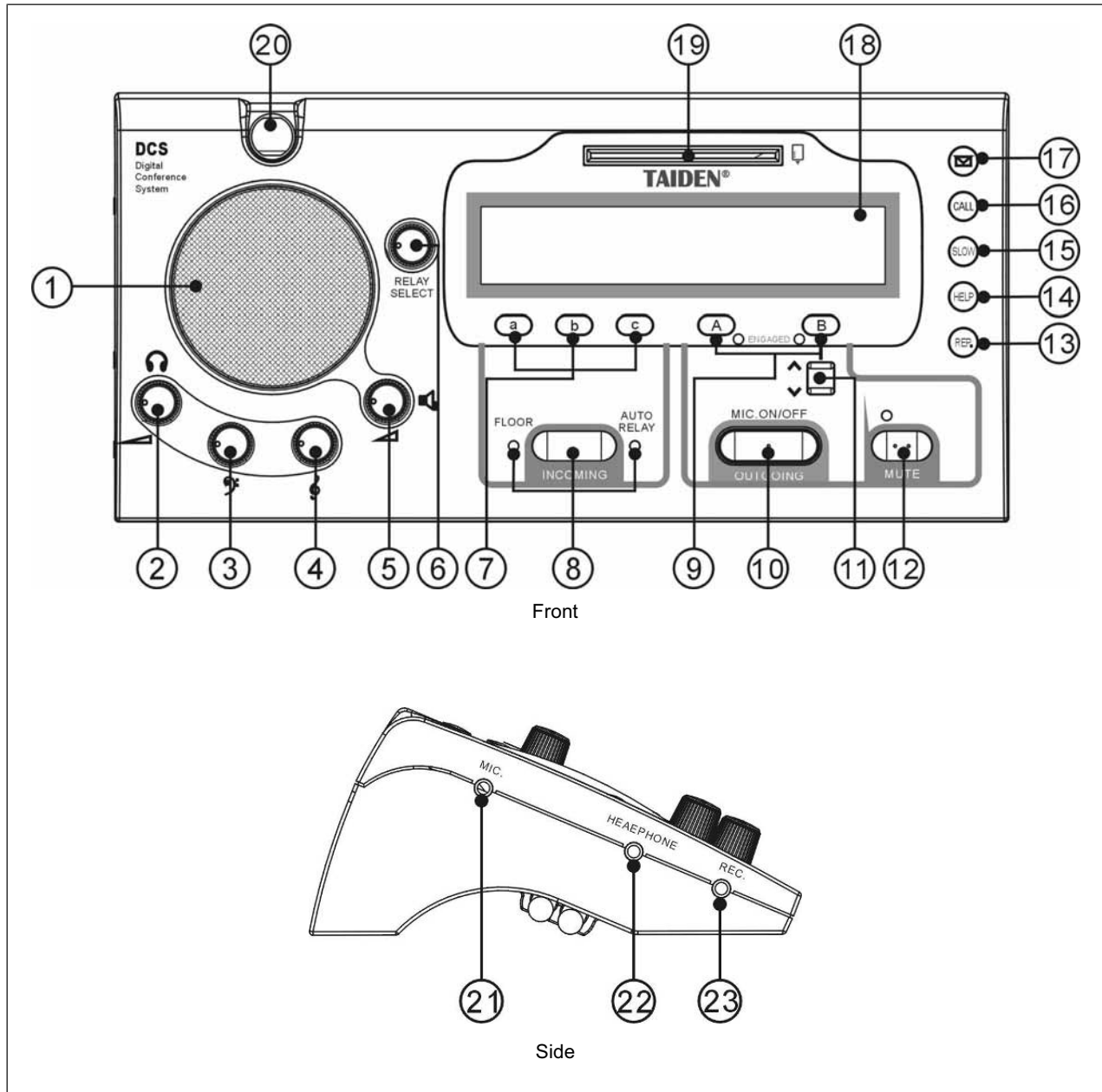


Figure 4.1 HCS-4385K Interpretation unit

Listening area:

Speaker/earphone control:

1. Built-in Hi-Fi loudspeaker

- ◆ When the microphones of all interpretation units in the same booth are turned off and if "FLOOR" indicating light is on, the speaker will play floor language.

2. Earphone volume control knob

3. Earphone bass control knob

4. Earphone treble control knob

5. Speaker volume control knob

Input channel control:

6. Monitor channel selector (RELAY SELECT)

- ◆ When monitor channel shortcut switch button (a b c) was pressed, use this knob to select interpretation channel.

7. Monitor channel shortcut switch button (a b c)

- ◆ Switch to preset input channel

8. Floor channel ON/OFF switch

- ◆ Press this button to access floor language and FLOOR indicating light will be activated

Speaking area:**9. Output channel A/B switch with indicating lights**

- ◆ Switch to preset output channel

10. Microphone ON/OFF switch

- ◆ Press this button to turn ON microphone and microphone ON indicating light will be activated, press this button again to turn off microphone and indicating light.

11. Channel B output channel selector**12. Microphone mute key (MUTE)**

- ◆ Press and hold this button to mute microphone (on cough) and mute indicating light will be activated. Release this button on voice recovery.

13. Input channel audio playback (REP.)

- ◆ Press this button to playback input channel audio, playback time is adjustable between 2~6 seconds.

14. HELP

- ◆ When connected to PC and controlled by application software, press this key to call for help and help information will be displayed on status bar of the application software.

15. Slow key (SLOW)

- ◆ When the delegate is speaking too fast, press this button to remind him/her to slow down. If the discussion unit is equipped with a LCD, the message "Please slow down" will be displayed.

16. Intercom call key (CALL)

- ◆ Press this key to ask operator for intercom function.
- ◆ If connected to PC, press this key will prompt "Booth X calling" at status bar on application software.

17. Message key (✉)**Display:****18. High light 256×32 graphic LCD**

- ◆ Display interpretation unit operation menu, short message, etc.

Interface:**19. IC card socket****20. Socket for pluggable microphone****21. External microphone jack (Ø 3.5 mm jack)****22. Earphone jack (Ø 3.5 mm jack)****23. Record output jack (Ø 3.5 mm jack)**

4.2 Connection

4.2.1 Connecting to CMU or EMU

HCS-4385K interpretation unit is equipped with a 1.5-meter long 6P-DIN cable with standard male connector. When connecting to CMU or EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a great distance between the conference unit and the CMU (EMU), CPL6PS extension cable can be used. The cable is equipped at one end with a 6P-DIN male connector and at the opposite end with a female connector. Just connect the female connector of the cable to the conference unit, and connect the male connector to the output of the main unit.

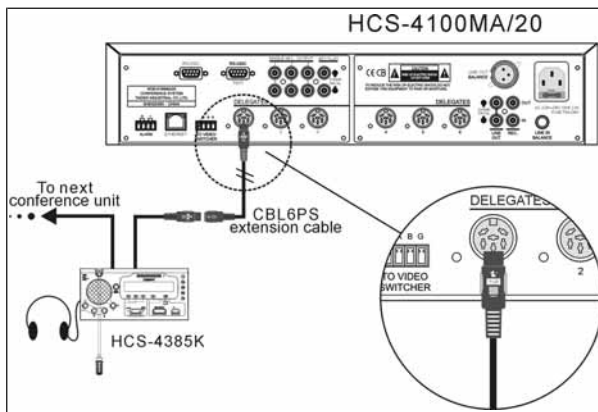


Figure 4.2 HCS-4385K interpretation unit connected to CMU or EMU

4.2.2 Connection between interpretation units

All conference units of HCS-4100nG FDGS are easily and conveniently connected hand-by-hand by dedicated 6-PIN cables.

When connecting to another interpretation unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

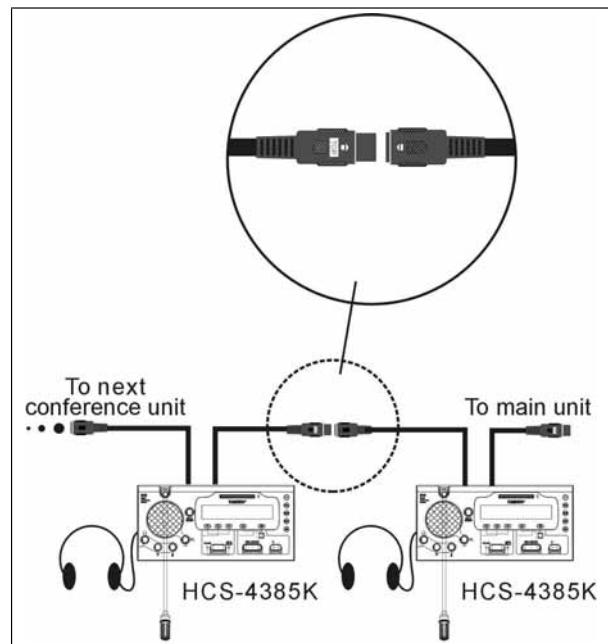
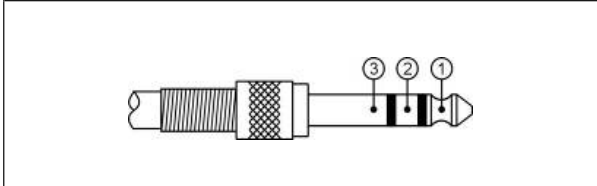


Figure 4.3 Hand-by-hand connection between HCS-4385K interpretation units

4.2.3 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the Interpretation unit. Its volume can be adjusted by the earphone volume control knob. The external earphone shall have Ø 3.5 mm plug, as the following figure:

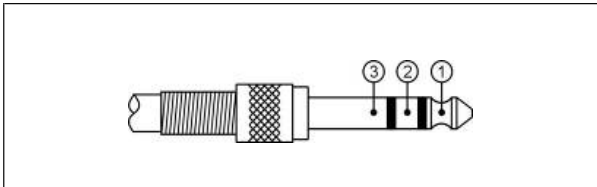


Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

4.2.4 External microphone

An external microphone can be connected to the external microphone jack at the lateral side of the interpretation unit. The external microphone shall have Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1.....Signal+
- 2.....Suspend/Ground
- 3.....Ground

4.3 Setup

To realize simultaneous interpretation function, interpretation unit should be incorporated in the conference system and they should be setup before meeting. All status of the interpretation unit will be displayed on LCD. Setup can be done via dialog menu and the buttons on its panel. We take HCS-4385K as an example to introduce the configuration and operation of the interpretation unit.

4.3.1 Direct interpretation, relay interpretation and auto relay interpretation

Before the setup of the interpretation unit, you should arrange booths according to actual requirements of the meeting. Assure yourself on the correct allocation of all the interpretation channels.

Direct interpretation

Usually, if all interpreters can understand the speaker's language, they just listen to the floor language and are doing simultaneous interpretation. The interpretation languages are distributed to different channels, as shown in figure 4.4. This is called direct interpretation.

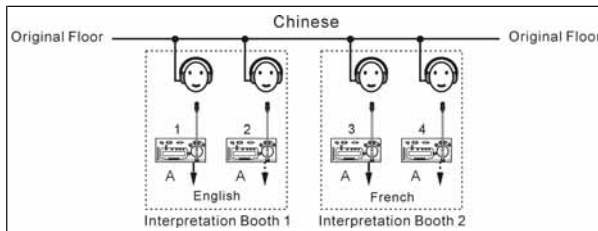


Figure 4.4 Direct interpretation

Relay interpretation

In the second case, if an interpreter is not familiar with the floor language, he/she cannot proceed to direct interpretation. He/she needs to listen to the translation of another interpreter and has to do "secondhand" translation, as shown in figure 4.5. This is called relay interpretation.

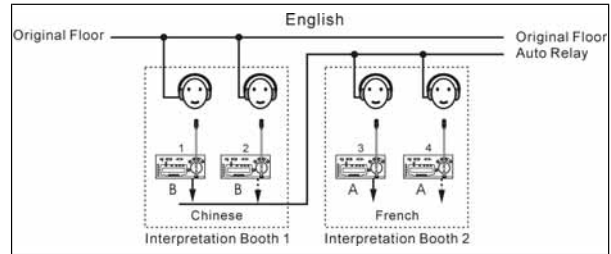


Figure 4.5 Relay interpretation

Auto relay interpretation

When relay interpretation is needed, the interpreter can select a language by the monitor channel shortcut switch button (a b c) or the relay select. Due to the fact that the output language of each booth is arranged beforehand, the relay booth must be setup before the meeting. If the interpreter cannot understand the speaker's language, he/she does not need to select the input language manually. His/her interpretation unit can switch to his/her familiar language automatically. This is called auto relay interpretation.

Example:

Booth 1 is for translation between English/Chinese. Output channel A is English, and output channel B is Chinese. Booth 2 is for translation between French/Chinese. Output channel A is French, and output channel B is Chinese. We configure now booth 1 as relay booth for booth 2.

When the speaker is speaking Chinese and if all the interpreters of booth 1 and booth 2 are familiar with Chinese, they can do direct interpretation. As shown in figure 4.4.

When the speaker is speaking English, the interpreters in booth 1 setup output channel B (Chinese) as interpretation language. The interpretation units in booth 2 will take Chinese as their input channel. When the microphone ON/OFF switch in booth 1 is pressed, the floor channel indicating light in booth 2 will be turned off and its "AUTO RELAY" indicating light will be activated. It indicates that auto relay interpretation function is working. The interpreters in booth 2 can do relay interpretation. As shown in figure 4.5.

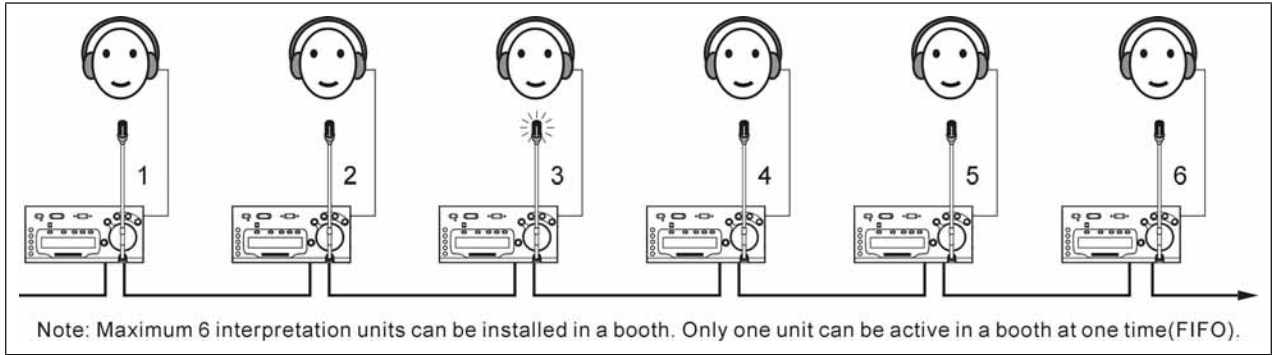


Figure 4.6 Schematic diagram of the connection of interpretation units

4.3.2 LCD Configuration menu

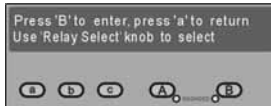
When “Interpretation setup” has been configured in CMU, the interpretation unit will display “Interpretation unit does not setup” as shown in the following figure at the left, or display standby interface as shown in the following figure at the right:



A) Accessing configuration menu

- “Interpretation unit does not setup” interface: press any button to go to menu configuration of the interpretation unit;
- Display standby interface: press and hold message button (☑), at the same time, clockwise rotate “RELAY SELECT” knob, to go to menu configuration of the interpretation unit.

LCD will display as the following figure:



In the menu operation of interpretation unit:

- Use “RELAY SELECT” knob to run through all submenus;
- Use “B” button to confirm/go to submenu;
- Use “a” button to return/exit.

B) Menu configuration

The menu operation of the interpretation unit is as follows:

- Step 1: setup operation language;
- Step 2: setup booth number;
- Step 3: select monitor channel a/b/c language;
- Step 4: setup auto relay booth quantity;
- Step 5: setup auto relay booth number;
- Step 6: finish.

Step 1: Setup operation language

Press “B” button to setup operation language, i.e. the display language on LCD:



- 1). Select language between several languages: Simplified Chinese, Traditional Chinese, English, Korean, etc., by rotating “RELAY SELECT” knob;
- 2). Press “B” button to confirm and go to next step;

Step 2: Setup booth number

Setup the interpretation unit with the number of the booth within which the interpretation unit is located, according to the configuration in the CMU. Press “B” button to confirm and go to next step or press “a” to return.



- 1). Select booth number by rotating “RELAY SELECT” knob, the range is limited by the configuration in the CMU (refer to section 2.1.4.2);
- 2). Press “B” button to confirm and go to next step or press “a” to return.

Step 3: Select monitor channel language

Preset 3 most familiar languages as monitor channel.

1. Select monitor channel a language



- 1). Select language channel by rotating “RELAY SELECT” knob, the range is limited by the configuration in the CMU (refer to section 2.1.4.2);
- 2). Press “B” button to confirm and go to select monitor channel b language or press “a” to return.

2. Select monitor channel b language



- 1). Select language channel by rotating “RELAY SELECT” knob, the range is limited by the configuration in the CMU (refer to section 2.1.4.2);
- 2). Press “B” button to confirm and go to select monitor channel c language or press “a” to return.

3. Select monitor channel c language

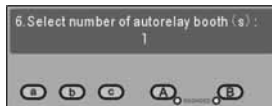


- 1). Select language channel by rotating “RELAY SELECT” knob, the range is limited by the configuration in CMU (refer to section 2.1.4.2);
- 2). Press “B” button to confirm and go to next step or press “a” to return.

Step 4: Setup auto relay booth quantity

Setup the required relay booth quantity for this interpretation unit. If an interpreter in booth A is not familiar with the floor language, then he/she needs to listen to another interpreter’s translation language from booth B and needs to do secondhand translation. Booth B is called relay booth of booth A. The relay booth quantity is 0~3.

- 0 means that this interpretation unit does not need relay interpretation. Press “B” button to finish configuration;
- Selection of any other value means that this interpretation unit needs relay interpretation. Press “B” to go to next step.



Step 5: Setup auto relay booth number

Setup auto relay booth number for this interpretation unit. For example, setup booth 2 as its first auto relay booth, as shown in the following figure. If more auto relay booths are need, use the same method to setup all of them.



Step 6: Finish

After finishing interpretation unit menu configuration, the following interface shows. Press “B” button to confirm and to return to standby interface.



4.3.3 Other configuration

4.3.3.1 Output channel configuration

To distribute interpretation languages separately, A/B channels are provided in the interpretation unit. When the interpretation unit menu configuration is finished, the output channel of every interpretation units must be setup before the meeting and according to actual requirements.

- a. Output channel A is setup from the CMU, and its output language is a fixed language as the output of the booth;
- b. Output channel B is used to output non-conventional language. Output channel B can be setup as “None” or “All” from the CMU menu configuration (refer to section 2.1.4.2). If output channel B is set as “All”, the interpreter can select output language by “Channel B output channel selector”. If output channel B is activated, the output of this interpretation unit will be distributed to all booths which set this booth as their auto relay booth, and other interpreters can do relay interpretation.

4.3.3.2 Microphone gain configuration

In standby interface, press and hold message key (☑) and rotate speaker volume knob ⑤ clockwise to go to microphone gain configuration interface. Rotate speaker volume knob ⑤ to set microphone gain within a range between -6 dB~+6 dB.



4.3.3.3 Playback time configuration

In standby interface, press and hold message key (☑) and rotate earphone volume control knob ② clockwise to go to playback time configuration. Rotate earphone volume control knob ② to set playback time within a range between 2 s~6 s.



4.3.3.4 Dynamic pressure level configuration

In standby interface, press and hold message key (☑)

and rotate earphone volume control knob ④ clockwise to go to dynamic pressure level configuration interface. Rotate earphone volume control knob ④ to set dynamic pressure level within a range between -6 dB~0 dB.



Note: When cooperate with HCS-5100 system and HCS-5100M is connected with DCS, the dynamic range of HCS-4385K is set to -6 dB and the earphone output of HCS-5100R receiver will have no distortion. When HCS-5100M is not connected with DCS, its input sensitivity can be adjusted. When its input sensitivity is set to -3 dBV, the dynamic range of HCS-4385K is set to -6 dB and the earphone output of HCS-5100R receiver will have no distortion. If turn down the input sensitivity of HCS-5100M, the output dynamic range of HCS-4385K can be correspondingly higher and the earphone output of HCS-5100R receiver will also have no distortion. For example: when the input sensitivity of HCS-5100M is set to 0 dBV, the dynamic range of HCS-4385K can be set to -3 dB and the earphone output of HCS-5100R receiver will have no distortion. When the input sensitivity of HCS-5100M is set to +3 dBV, the dynamic range of HCS-4385K can be set to 0 dB and the earphone output of HCS-5100R receiver will have no distortion.

4.4 Operation

4.4.1 Operation of listening area

The listening area, on the left side of the unit, is the area used to monitor floor or interpretation channels. It includes a built-in speaker, a headset socket and the corresponding control buttons and knobs. This intuitive layout is helpful for interpreters to familiarize with the interpretation unit quickly.


1. Channel language is the language arranged for a channel in the CMU configuration. For example, 10 languages are configured and we setup channel 1 as Chinese, and channel 2 as English, etc. This setting is to simplify the work of the interpreters and make labels for all selectable languages for all participants.
2. If the interpreter presses the floor channel button ⑧, he/she can listen to the floor language. If the microphone of every interpretation units in this booth is turned off, he/she can monitor the floor language from the built-in speaker and adjust the volume with the "Speaker volume control knob" ⑤. When a microphone in this booth is activated, the loudspeaker of every interpretation unit in this booth will mute automatically. Now the interpreter can listen with the earphone and adjust the volume, treble and bass with the "Earphone volume control knob" ②, "Earphone bass control knob" ③ and "Earphone treble control knob" ④ which are located on the left lower side.
3. If the interpreter wants to listen to another channel language, he/she can select preset the channel language with the "Monitor channel shortcut switch button (a b c)". The loudspeaker will mute automatically. If the channel language is not preset, he/she can select the channel language with the "RELAY SELECT" knob ⑥.
4. If the speaker speaks too fast and if the interpreter cannot follow him/her, the interpreter can press the "SLOW" button to remind the speaker to slow down. When the "SLOW" button is pressed, a ring tone will be emitted by the corresponding discussion unit. If the discussion unit is equipped with a LCD, the message "Please slow down" will be displayed.
5. If the interpreter missed speaker's speaking, he/she can press the input channel audio playback key (REP) to playback missed words and "Repeating..."

will be displayed on LCD. The playback time ranges between 2 s~6 s.

6. Quality indication: if the monitored language is coming directly from the orator, it will display "FLOOR". If the monitored language is from the direct translation of the floor, it will display "+". If the monitored language is from the relay translation of another translation, it will display "-". This logo is used to remind the interpreter of avoiding using relay translation if direct translation is available.

4.4.2 Operation of speaking area

The speaking area, on the right side of the unit, is the area which is used to distribute interpretation languages to the corresponding channels. It includes a pluggable microphone, functional buttons, channel selectors and LCD, etc.

1. Press microphone ON/OFF button, and distribute the interpretation language to the output channel.
At most 6 interpretation units can be set in one booth for 6 interpreters. Only one microphone can be activated in one booth (FIFO). When one microphone in the booth is activated, the loudspeaker of every interpretation unit in the booth will mute.
2. Output channel select:
 - ◆ Use "A" or "B" button to switch output channel quickly. If auto relay interpretation is activated and output channel B activated, the output will be automatically distributed to all booths which set this booth as their auto relay booth. and other interpreters can now do relay interpretation.
 - ◆ Both "A" and "B" buttons have an "ENGAGED" indicating light. If the selected output channel is already engaged by another interpretation unit, this indicating light will be activated and the microphone cannot be activated now.
3. Press and hold "MUTE" button to close the microphone temporarily and the MUTE indicating light will be turned on. Releasing the button will activate the microphone automatically.
4. "MESSAGE" () button is used to check short messages.
This button is also used to access the configuration menu of the interpretation unit (refer to 4.3.2).
5. "CALL" button: used by the interpreter to call the

operator and have intercom facility

6. "HELP" button: used by interpreter calling for help.

Help information will be displayed on status bar of the application software.