

GONSIN

TC-904/906
*Infrared Simultaneous
Interpretation System*



Gonsin Digital Conference Equipment Co., Ltd.

TABLE OF CONTENTS

General Description.....	3
IR Transmitter.....	4
IR Radiator.....	6
IR Receiver.....	8
Interpreter Console.....	12
Headset/Earphone.....	15
Charging/Storage Case.....	16
Accessories.....	17
Configuration Diagram.....	18

TC-904/906

IR Simultaneous Interpretation System

GONSIN TC-904/906 simultaneous interpretation system is designed to offer 4 or 6-channel audio distribution using the advanced infrared transmission technology.

As the central element of the system, the infrared transmitter interfaces with either analog or digital conference system, connects interpreter consoles and infrared radiators which transmit audio signals to wireless multi-channel receivers for the delegates to hear the language of their choice via personal earphones.



The system operates in the higher 2 to 6 MHz frequency band which is immune to distortion from hall lighting and free from radio frequency interference, ideally suited for use in business and government conferences, international conventions and other multilingual applications.



Typical Applications

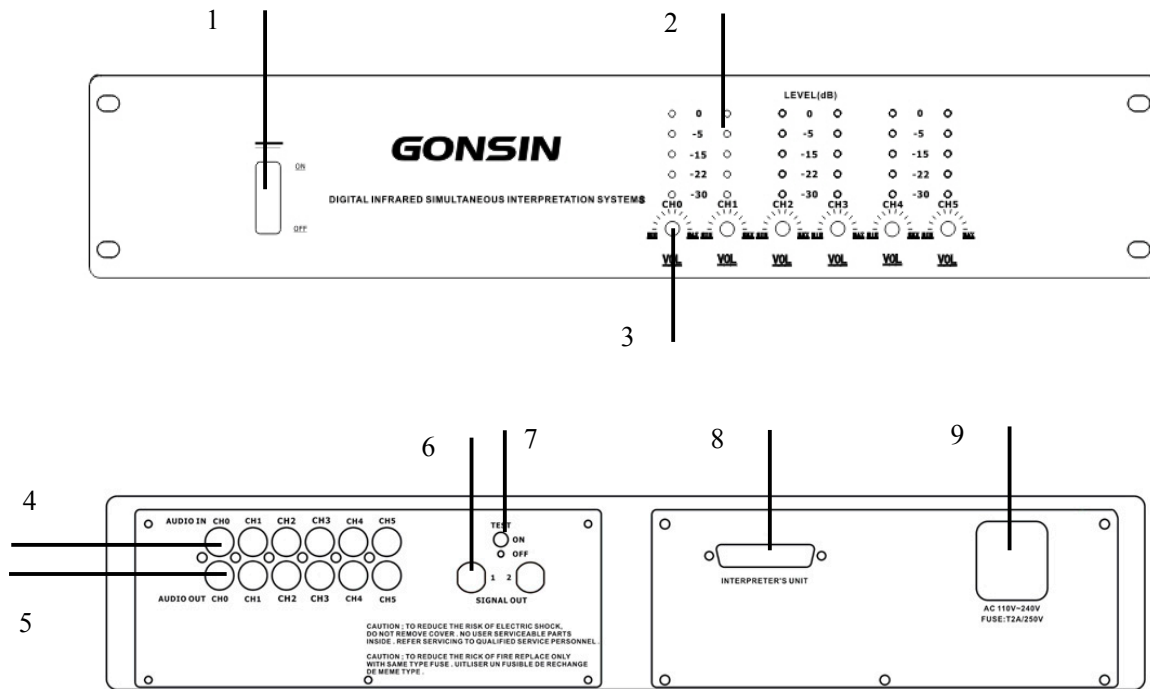
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|----------------------|-----------------------|---------------------|
| ★ Convention centres | ★ Parliament chambers | ★ Courtrooms |
| ★ Boardrooms | ★ Council chambers | ★ Classrooms |
| ★ Auditoriums | ★ Theatres | ★ Houses of Worship |

TC-Z904V/Z906V **Infrared Transmitter**



The TC-Z904V/Z906V infrared transmitter is a microprocessor based central unit which is designed to modulate and transmit 4 or 6 audio channels to different carrier frequencies. It features independent channel level control, independent channel output level indicators, and independent channel audio output sockets for sound recording. Test mode produces a different frequency tone for each input/channel. Two BNC sockets can link up infrared radiators in two lines. A transmitter can connect multiple interpreter consoles in a daisy chain.

- Modulation mode: FM
- Frequency synthesis: digital PLL
- Frequency range: 2-6 MHz
- Frequency response: 100Hz-14kHz
- Frequency stability: 10ppm
- Pre-emphasis: 75 μ Sec.
- Peak deviation: \pm 7.5kHz
- Distortion at 1 kHz: <0.5%
- Channel separation: >70dB
- RF output power level: 700mV
- RF output impedance: 55-75 ohms
- Input impedance: 18k ohms
- Max. input power level: 7.5V
- AGC range: 30dB
- S/N ratio: >75dB
- Power consumption: 40W
- Power requirement: 110/240VAC, 50-60Hz
- 19" rack mountable case
- Dimensions: 430 \times 99 \times 325 mm (W \times H \times D)
- Weight: 7.6 kg



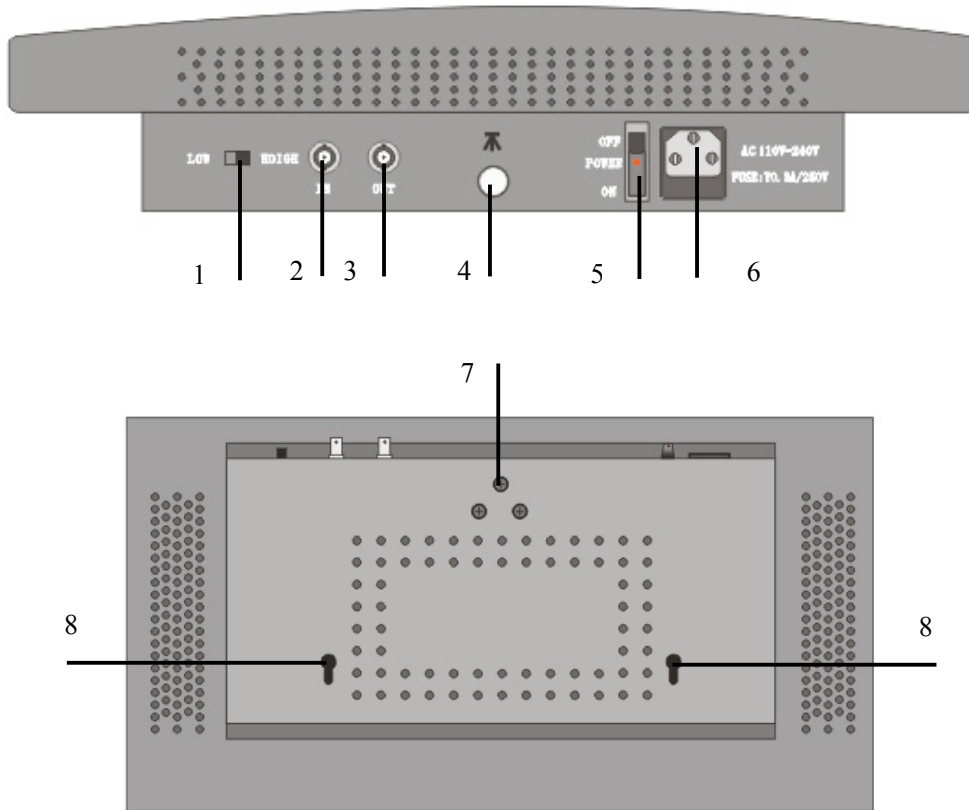
FRONT VIEW		
1	Power ON/OFF switch and indicator	
2	LED indicators for audio channel output level	
3	Independent volume control for each channel	
REAR VIEW		
4	AUDIO IN	Unbalanced RCA audio input sockets (CH 0,1,2,3,4,5)
5	AUDIO OUT	Unbalanced RCA audio output sockets (CH0,1,2,3,4,5)
6	SIGNAL OUT	RF output BNC socket to connect the radiator
7	TEST	ON/OFF switch for testing of channel signal on the receivers
8	INTERPRETER UNIT	Female DB25 port to connect male DB25 port on the interpreter unit.
9	POWER INPUT	AC power input socket (110V/240V, 50-60Hz)

TC-H15/25 **Infrared Radiator**



The TC-H15/25 high power infrared radiator can be switchable to 50% low power, making it suitable for use in larger halls and smaller rooms. The radiator is equipped with automatic gain control to ensure the infrared diodes function with maximum efficiency, and is naturally convection cooled for totally silent and maintenance-free continuous operation. It can be ceiling or wall mounted for permanent installation, or set up on an optional tripod for portable application. Multiple radiators can easily be daisy-chained together to expand coverage. The unit is easy to maintain and clean, with IR emitting diodes protected by the cover plate.

- Frequency range: 2 – 6 MHz
- IR output power: 15W/25W
- Output level: Low/High (50%/100%)
- Coverage range: up to 30 meters
- RF output impedance: 55-75 ohms
- RF input voltage: 100-2000mV
- Power consumption: 55W / Stand-by 8W
- Power Supply: 110/240VAC, 50-60Hz
- Operating temperature: 0°C–40°C
- Cable: 75Ω-4-128 coax, BNC connectors
- Dimensions: 450 × 211 × 82 mm (W×H×D)
- Weight: 3.8 kg



BOTTOM VIEW		
1	HIGH/LOW SWITCH	Slide switch for adjusting output level (HIGH 100% / LOW 50%)
2	(SIGNAL) IN	RF input BNC socket to connect the transmitter or the last radiator
3	(SIGNAL) OUT	RF output BNC socket to connect the next radiator
4	TRIPOD HOLE	For mounting radiator on a tripod for portable use
5	POWER SWITCH	Power on/off switch and indicator
6	POWER INPUT	AC power input socket (110V/240V, 50-60Hz)
REAR VIEW		
7	MOUNTING HOLE	For wall-mounting or ceiling-mounting (radiator angle can be adjusted)
8	MOUNTING HOLE	For horizontal wall-mounting (radiator angle cannot be adjusted)

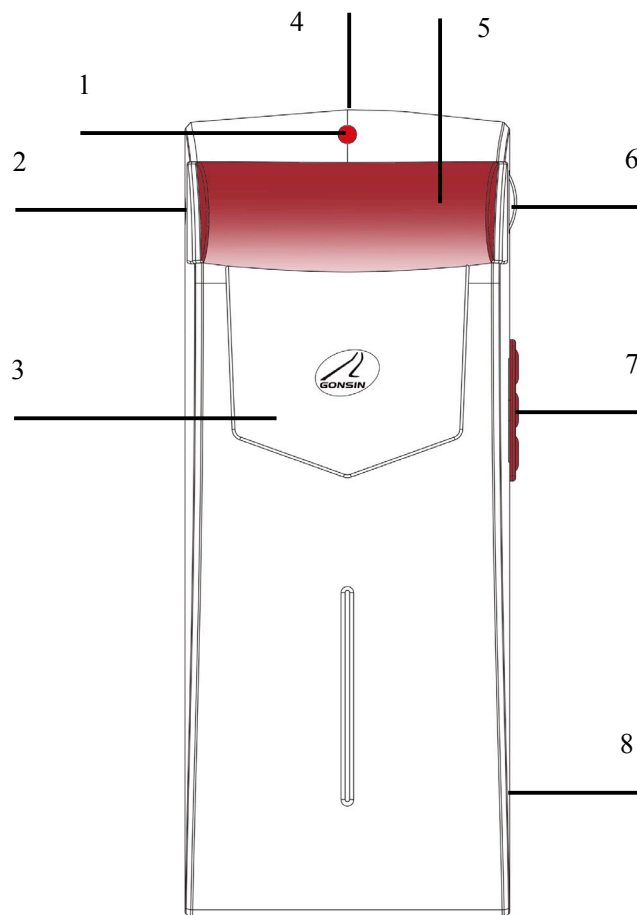
TC-J904/J906 **Infrared Receiver**



The portable TC-J904/906 infrared receiver is designed to receive 4 or 6 audio channels. The optical lens offers a wider receiving angle to pick up the infrared light signal. The delegate may listen to any selected language on a headphone/earphone. Volume level can be adjusted through the volume control for comfortable listening. Any number of receivers can be used within the radiator's effective coverage range.

The receiver is powered by two pieces of AAA size interchangeable dry battery. The continuous operating time is 60-80 hours with long life dry batteries.

- Modulation mode: FM
- Frequency synthesis: digital PLL
- Frequency range: 2-6 MHz
- Frequency response: 100Hz-14kHz
- De-emphasis: 75 μ Sec.
- Peak deviation: \pm 7.5kHz
- Distortion at 1 kHz: <1%
- Signal-to-noise ratio: >55dB
- Frequency stability: 10ppm
- Operating voltage: 2.3V-3.6V
- Power consumption: 50mW
- Slide switch for channel selection
- Switch for power on/off & vol control
- Pocket clip and lanyard for easy-wearing
- 3.5mm output phone jack
- Battery type: 2 x AAA alkaline or rechargeable
- Dimensions: 140×58×30 mm (L x W x D)
- Weight: 0.13 kg



1	Power indicator will light up when the receiver is turned on.
2	3.5mm headphone jack
3	Integrated pocket clip for easy-wearing
4	Lanyard hole
5	Infrared light focusing device inside the plastic shield
6	Thumbwheel switch for power on/off and volume control
7	Slide switch for channel selection (Channel 0,1,2,3,4,5)
8	Battery compartment cover

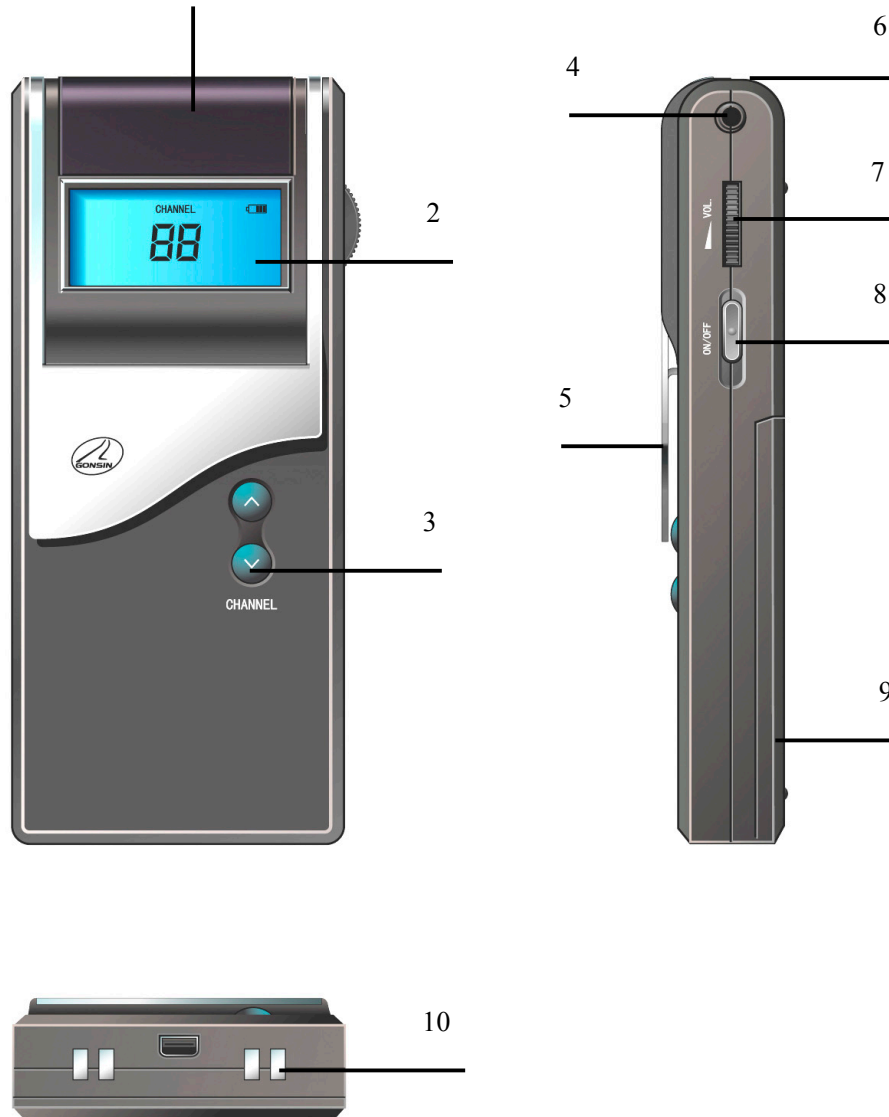
TC-J904L/906L Infrared Receiver



The portable TC-J904L/906L infrared receiver is designed to receive 4 or 6 audio channels. The selected channel number and battery level can be displayed on LCD screen. The user may listen to any selected language on a personal earphone. Volume level can be adjusted through a thumbwheel switch for comfortable listening. Any number of receivers can be used within the radiator's effective coverage range.

The receiver is powered by a rechargeable Lithium-ion battery pack with 60-80 hours continuous operating life and up to 500 operating cycles.

- Modulation mode: FM
- Frequency synthesis: digital PLL
- Frequency range: 2 – 6 MHz
- Frequency response: 100Hz-14kHz
- De-emphasis: 75 μ Sec.
- Peak deviation: ± 7.5 kHz
- Distortion at 1 kHz: <1%
- Signal-to-noise ratio: >55dB
- Channel separation: >55dBA
- Frequency stability: 10ppm
- Power consumption: 50mW
- Slide switch for power on/off
- Thumbwheel switch for volume control
- 3.5mm phone output jack
- Up/down push buttons for channel selection
- LCD display for channel number & battery level
- Pocket clip and lanyard for easy-wearing
- Integrated charging electronics and contacts
- Battery: 3.7V rechargeable Lithium-ion
- LCD screen size: 33 x17mm
- Dimensions: 133x57x23 mm (WxHxD)
- Weight: 0.15 kg



1	Infrared light focusing device inside the plastic shield
2	LCD shows channel number and battery level
3	Up/down push buttons for language channel selection
4	3.5mm headphone jack
5	Integrated pocket clip for easy-wearing
6	Lanyard hole
7	Thumbwheel switch for volume control
8	Slide switch for power on/off
9	Battery compartment cover for Li-ion battery pack

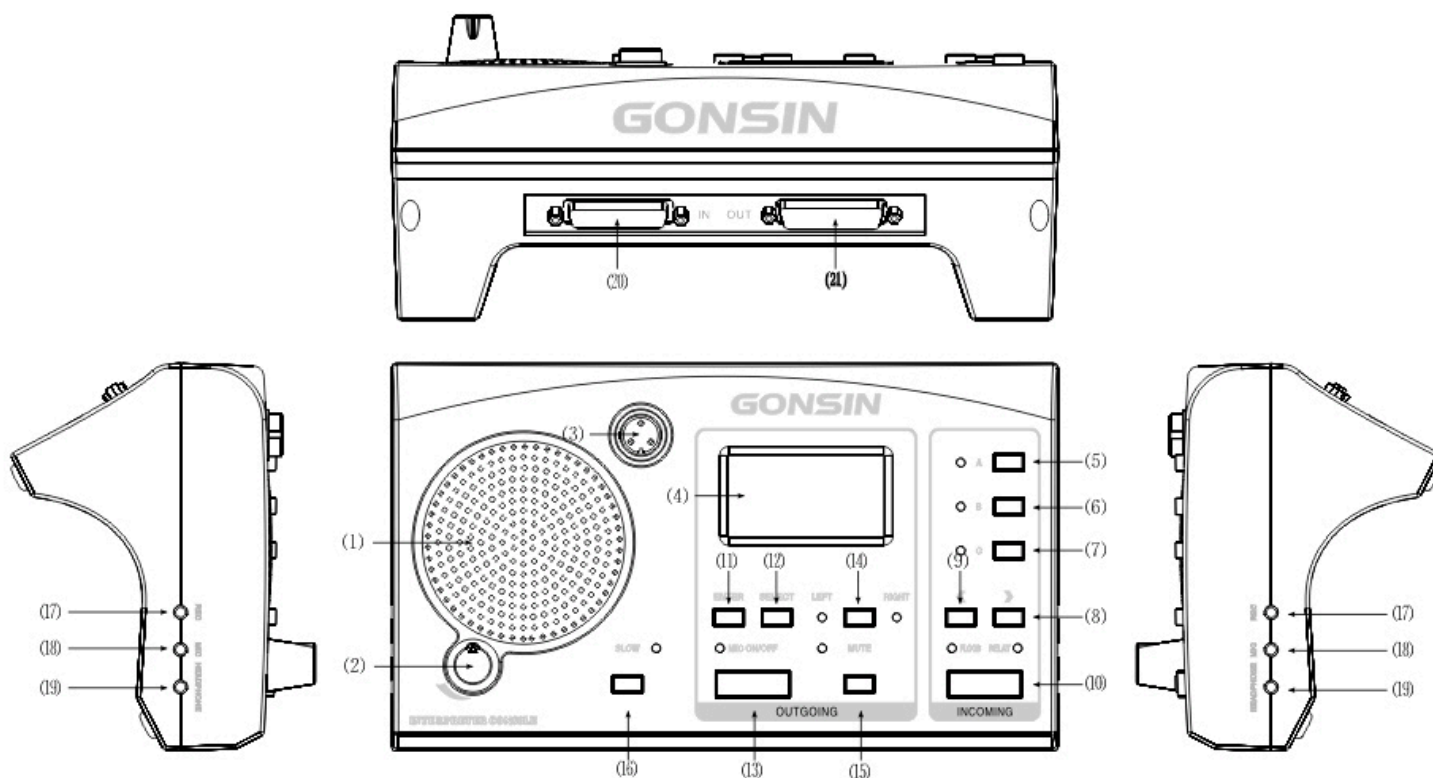
TC-F06 Interpreter Console

- Digitally-controlled workstation for one or two interpreters
- Designed to be used for 6-channel simultaneous interpretation system
- LCD screen to display the following information:
 - 1) Channel selection and confirmation
 - 2) Incoming/outgoing language channel number
 - 3) All the occupied language channels
 - 4) Channel number of the present unit
 - 5) Interpretation time for the last and present operation
- Two different types of microphone are available:
 - 1) High quality gooseneck microphone
 - 2) Headset microphone
- Built-in loudspeaker with volume level control. Loudspeaker is automatically switched off when the microphone is turned on
- 3 pre-selected incoming channels are available
- Automatic channel interlocking function prevents the interpreters from using the same outgoing channel
- MUTE key to enable a brief muting of the microphone for cough cut
- The floor audio automatically goes to the outgoing channel when the microphone is turned off.
- Multiple interpreter consoles can be connected in a daisy-chain



Technical Data:

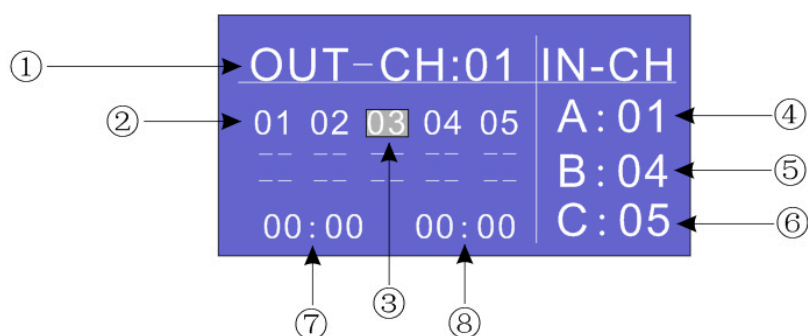
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|----------------------------------|---|
| ● Frequency response: 50-18kHz | ● Operating temperature: 0 °C – 50 °C |
| ● Distortion at 1 kHz: < 0.1% | ● Standard microphone stem length: 425 mm |
| ● Channel separation: > 85 dB | ● 128x64 backlit LCD screen |
| ● Signal-to-noise ratio: > 90 dB | ● 3/5/10m cable with DB25 connectors |
| ● Max. input power level: 7.5V | ● 3.5mm jacks for microphone, recorder, headphone |
| ● Operating voltage: 24V | ● ABS base dimensions: 247X145X95mm (WDH) |
| ● Power consumption: 2.5W | ● Weight: 1.2 kg |



- 1) Built-in loudspeaker 8Ω/2W
- 2) Rotary switch for loudspeaker volume level control
- 3) Connector for pluggable microphone
- 4) LCD screen for channel information display
- 5) Key A for the first pre-selected incoming channel
- 6) Key B for the second pre-selected incoming channel
- 7) Key C for the third pre-selected incoming channel
- 8) Rightward key to pre-select an incoming channel number
- 9) Leftward key to pre-select an incoming channel number
- 10) FLOOR key. When the FLOOR indicator lights up, the incoming channel is the floor/original audio; when the RELAY indicator is on, the incoming channel is the relay channel. The default incoming audio is the floor audio.
- 11) ENTER key to confirm (lock) an outgoing language channel. The MIC can be activated when the outgoing channel is locked. The MIC must be switched off when the outgoing channel number needs to be changed.
- 12) SELECT key to choose an outgoing channel number.

- 13) MIC on/off button. The MIC can be switched on when the outgoing channel is selected, confirmed or locked. When MIC is on,
- 14) Left/Right selection key for headset microphone. This key can be used when MIC is ON. When the left LED indicator is on, the left headset microphone can be used; when the right LED indicator is on, the right headset microphone can be used.
- 15) MUTE key: hold down the key to enable a brief muting of the microphone which will be active again when the key is released.
- 16) SLOW key to alert the current speaking delegate to speak slowly. When the key is pressed, the active delegate microphone's LED ring luminant will flash or a short message will be sent to the delegate. This function can only be used with GONSIN digital conference system.
- 17) REC output jack (3.5mm) on both sides for audio recording.
- 18) Headset microphone input jack (3.5mm)
- 19) Headphone output jack (3.5mm)
- 20) INPUT connector. The first interpreter unit connects the control unit or transmitter, and the second unit links the output connector on the previous interpreter unit.
- 21) OUTPUT connector links the next interpreter unit.

LCD Screen for Interpreter Unit



- 1) The outgoing channel number
- 2) Outgoing channel – unoccupied (unlocked) channel number.
- 3) Outgoing channel - occupied (locked) channel number.
- 4) The first pre-selected incoming channel
- 5) The second pre-selected incoming channel
- 6) The third pre-selected incoming channel
- 7) The current interpretation time: 00:00 (hour:minute)

8) The previous interpretation time: 00:00 (hour:minute)

TC-D2 Interpreter Headset

- Closed-ear stereo headset with mic and vol control
- Connectors: 3.5mm stereo plugs
- Impedance: $60\Omega \pm 15\%$
- Frequency response: 20Hz to 20KHz
- Sensitivity (1 kHz): $-58 \pm 2\text{dB}$
- Microphone type: Omni-directional dynamic
- Microphone sensitivity (1 kHz): $-58 \pm 2\text{dB}$
- Cord length: 2 meters



TC-D1 Clip-on Earphone

- Type: dynamic 40mm
- 360° swivel clip-on hanger
- Full range enhance system
- Super bass frequency technology
- Frequency response: 7Hz to 24KHz
- Sensitivity: $102\text{dB} \pm 3\text{dB}$
- Impedance: $40\Omega \pm 10\%$
- 120cm cord with 3.5mm plug



TC-D3 Stereo Headphone

- Frequency response: 20 Hz - 20 kHz
- Impedance: 32 ohms \pm 10%
- Sensitivity: 115dB SPL/1mW
- Adjustable headband & swivel earcups
- 30mm drivers for dynamic stereo sound



- 12cm single entry cord with 3.5mm plug

GX-20 Charging/Storage Case



- Microprocessor-based unit w/ smart charging circuit
- Accommodates up to 20 receiver units with Li-ion battery
- DC 5V low voltage charging power
- LED indicator for charging status
- About 10 hours needed to fully recharge 20 receivers
- Receivers can be left in the case after the charge is complete
- AC/DC adaptor w/ power cord
- Power input AC100-240V 50/60Hz, output DC5V 8A
- Dimensions: 59x30x18 cm (WXDXH)

GX-48 Storage/Carrying Case



- Handy locking aluminium/plastic suitcase
- Designed for carrying/storage of receiver units
- 48 positions with pre-cut foam
- Dimensions: 50 × 33 × 20cm

RY-123 Receiver Lanyard

- Designed for easy wearing of receiver unit
- Length: 40 cm



UA-203 Radiator Bracket

- Swivel bracket for wall/ceiling mounting
- Adjustable angle



GX-315 Radiator Tripod

- Type: floor standing, foldable 3-way pan tripod
- Height: 60cm to 150cm



25PS-03/05/10 Interpreter Cable

- DB-25 double shielded cable
- Moulded male/female connector, long screws
- Length: 3m/5m/10m



75Ω-4-128 Radiator Coaxial Cable

- Connectors: BNC type, 2 x male
- Length: 10 metres



System Configuration Diagram

