

TELIKOU Intercom System

MDS-400/BK-2400

Wireless Intercom System

Instruction Manual

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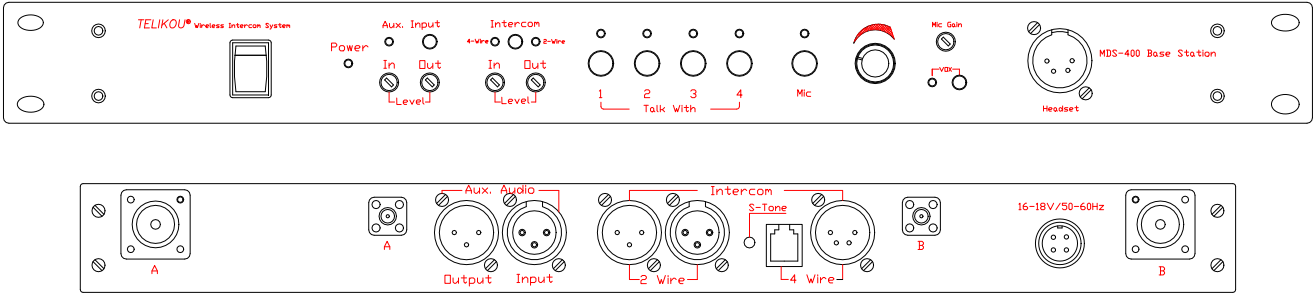
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I. Introduction

Thank you for choosing TELIKOU Wireless intercom product.

1.1 Main Station



1) Front Panel

1. Connector:

Headset: Pin1, Pin2: Microphone balance input
Pin3, Pin4: Earphone balance output

2. Press Button:

Mic: Headset Microphone ON/OFF switch
2W/4W: 2 wire/ 4 wire intercom connector selection switch
Aux.: Aux Audio input ON/OFF switch
VOX: Microphone Voice control function switch
CH1: Wireless belt pack Channel 1 control switch
CH2: Wireless belt pack Channel 2 control switch
CH3: Wireless belt pack Channel 3 control switch
CH4: Wireless belt pack Channel 4 control switch

3. Adjustment Knob

Aux. In Level: Adjust Aux. input Audio signal level
Aux. Out Level: Adjust Aux. output Audio signal level
Intercom In level: Adjust intercom input connector audio signal level

Intercom Out level: Adjust intercom output connector audio signal level
Mic Gain: Adjust headset Microphone gain
Volume: Adjust the headset audio

4. Switch

Power: Main station Power switch

5. Indication Led Light

Power LED: Power indication LED light.

ON: Power on,

OFF: Power off

4-wire LED: 4-wire device connector enable LED indicator.

ON: 4-Wire device connector is enabling

OFF: 4-wire device connector is disabling

2-wire LED: 2-wire device connector enable LED indicator.

ON: 2-Wire device connector is enabling

OFF: 2-wire device connector is disabling

CH1/2/3/4 LED: 1. Channel switch indicator.

On: Channel on

Off: Channel off

2. When channel switch is off, if main station detected any belt
-pack microphone is turned on, this indicator flash fast.

(1s on, 1s off)

MIC LED: Main station headset indication LED light

ON: Microphone on

OFF: Microphone off

VOX LED: Microphone Voice control function Indication LED light

ON: VOX function is on

OFF: VOX function is off

Aux. LED: Auxiliary input indication LED light

ON: AUX audio signal input is enabling.

OFF: AUX audio signal input is disabling.

2) Rear Panel

1. Connecting socket

4-wire Connector: 4-wire device connector XLR-4M.
(RJ11 and XLR-4M are parallel connected).
Pin1/Pin2: Balanced audio input
Pin3/Pin4: Balanced audio output

If this connector is XLR-4F.

Pin definition is as follow:

Pin1: Audio Input
Pin2: Input Ground
Pin3: Audio Output
Pin4: Output Ground

2-wire Connector: 2-wire device connector.
(XLR-3F and XLR-3M are loop through)
Pin1: Common
Pin2: null
Pin3: audio

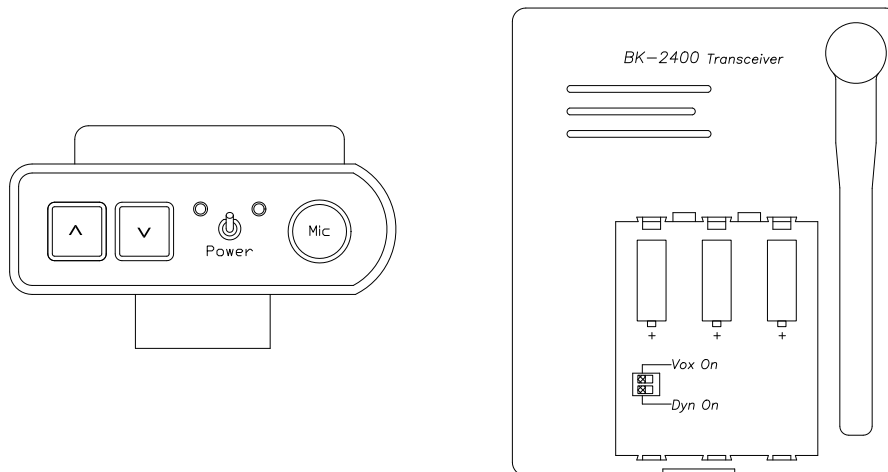
Aux Audio In: Aux input audio signal input connector
Pin1: Common
Pin2: audio +
Pin3: audio –

Aux Audio Out: Aux output audio signal connector.
Pin1: Common
Pin2: audio +
Pin3: audio –

Antenna: SMA antenna connector.
CH1, CH2: Group B;
CH3, CH4: Group A

Power: Power connector. 18-24VDC, 3.0A

1.2 Beltpack



1. Press Button

MIC: headset microphone switch
 ▲/▼: volume up and down

2. Switch

Power: Power switch
 VOX: Microphone Voice control function (In battery case)
 On: VOX is enabling
 Off: VOX is disabling

DYN: Headset microphone type selection (In battery case)
 Dyn On: Microphone type is set as dynamic.
 Dyn Off: Microphone type is set as electret.

3. Indicator

Low battery & Code LED: Green and red Bio-color LED light.

1. Low battery:	Red lights on.
2. Code matching:	Green flash slow
3. Code Matching success:	Green lights on.
4. Code Matching failed:	Green lights off

5. Beltpack offline: Green lights off

MIC LED:

1. Beltpack microphone indication light.
ON: Microphone on
OFF: Microphone off
2. When beltpack mic is off, if corresponding main station channel is turned on, the beltpack MIC indication light flash fast.

4. Connector

Headset: Beltpack headset connector
(Both Microphone and earphone are balanced signal)
Pin1, Pin2: connecting Mic
Pin3, Pin4: connecting earphone

1.3 Explanation

Flash Fast: 1S ON, 1S OFF
Flash: 2S ON, 2S OFF
Long Slow: 1S ON, 3S OFF or 3S ON, 1S OFF

II. OPERATION

MDS-400 main station

2.1 Talk operation

Turn on main station and beltpack, when they are connecting, the main station channel light and beltpack code light flash (2S ON, 2S OFF). When the connection is successful, both lights are constantly light green. The beltpack and main station are on standby mode.

Main station call

Under standby mode, press main station Mic button, the Mic light is on. Then press main station channel button, the channel indication light is on. The corresponding beltpack Mic LED flashes fast. It means there is a call from main station to belt pack. The beltpack is into listening mode automatically. After single click beltpack Mic button, it changes from flashing to constant on. Beltpack is on full-duplex mode. That is the beltpack can listen and talk at same time.

Beltpack Call

Under standby mode, single click beltpack Mic button. The beltpack Mic LED is on. If

corresponding main station channel is off, the channel indication light flash fast. It means the beltpack is calling. Press channel button, the flashing light becomes constant on. This channel is entered monitoring status. If the main station Mic button is pressed (Mic LED on), the system becomes full duplex mode. The main station can talk point to point, or point to multipoint.

When beltpack call main station, if main station doesn't answer in one minute, the call will be finished.

In both situations, external audio signal which is sent to main station by any connector can be heard by both sides.

2.2 VOX function

Turn on VOX function, the VOX indication LED lights on as well. If audio signal which is collected by main station microphone is over than the preset value, the microphone input channel and indication light are turned on; If audio signal is not been detected or lower than preset value in ten seconds ,the microphone input channel and indication light are turned off.

2.3 Volume adjustment

Turn up or down the audio level which heard by headset.

2.4 Connector

2-wire intercom connector

MDS-400 is default with 4-wire channel on. Press "Intercom" button, main station switch to 2-wire channel and cut off 4-wire connector. Meanwhile the 2-wire indication light is on. Main station can communicate full duplex with 2-wire equipment which connected by 2-wire connector at rear panel.

2-wire connector definition:

loop through XLR-3M/F connector

Pin 1: Common

Pin 2: null

Pin 3: Audio

Audio Level: 1Vpp

4-wire intercom connector

Press "intercom" button if 4-wire indication LED light is off. With 4-wire intercom channel, 2-wire channel is cut off. Main station can communicate with 4-wire equipment with full duplex by 4-wire connector at rear panel. Main station is default with 4-wire intercom connector.

4-wire XLR-4M intercom line connector pin setting:

Pin1: Audio Input -
Pin2: Audio Input +
Pin3: Audio Output -
Pin4: Audio Output +
Audio Level: 1Vpp

Notes: If this connector is XLR-4F.

Pin definition is as follow:

Pin1: Audio Input
Pin2: Input Ground
Pin3: Audio Output
Pin4: Output Ground
Audio Level: 1Vpp

Aux. Audio Input Connector

Press “Aux. Audio In” button will turn on the “Aux. Audio In” channel and indication light. Press “Aux. Audio In” button again will turn off the channel and light. When “Aux. Audio In” is on, the main station can hear the audio signal inputted from this channel. The signal level is adjusted by the auxiliary audio potentiometer.

XLR-3F connector. Balanced input.

Pin 1: Common
Pin 2: Audio +
Pin 3: Audio –
Audio level: 1Vpp

Aux. Audio Output Connector

Audio signal of main station outputs through AUX connector. Auxiliary output level adjustment can adjust the output level.

XLR-3M, balanced output.

Pin 1: Common
Pin 2: Audio +
Pin 3: Audio –
Audio level: 1Vpp

2.5 Mic Gain

MIC gain adjustment can change headset microphone amplifying circuit gain to fit different microphones.

2.6 Code Clearing and Code Matching

MDS-400 main station and BK-2400 beltpack have been matched at factory. But you may need to do the “Code Clearing and Code Matching” sometimes.

Hold “Aux. Input” button and turn on MDS-400 main station. Release “Aux. Input” button after “4-wire” indication light flash once. MDS-400 entered Code Clearing/Code Matching mode.

Code Clearing Operation

After enter Code Clearing/Code Matching mode, any channel (CH1, CH2, CH3, CH4) indication LED lights on means that channel has code matching information. Be sure to clear the code before do code matching. Press channel button to clear the code. If you want to clear all 4 channel code in one time, press “Intercom” button.

Code clearing only can be operated on MDS-400 main station.

We strongly recommend you turn on the belt pack before Code Clearing.

1# and 2# beltpack match code

After entered Code Clearing/Code Matching mode, press “Aux. Input” button, CH1 indication light flash slow (if 1#beltpack has done code matching, the CH2 indication light flash slow). Hold 1# beltpack volume down “V” button and turn on the beltpack. The beltpack working indication light flashes fast first, then become slow. Release the button, Code matching is in process. If code matching is succeed, the channel light of main station and working indication light of beltpack become flash constantly. (If failed, both LED are off).

To continue doing code matching for 2# beltpack, press “Aux. Input” again, CH2 light flash slow, the code matching process is same as 1#. If code matching succeed, the light of main station and 2# beltpack light flash constantly on.

Note: If code matching is not succeed for several times, please check all four antennas are installed well. Turn on the beltpack power and redo the code clearing operation on main station.

3# and 4# beltpack match code

After entering Code Clearing/Code Matching mode, press “VOX” button, CH3 indication light flash slow(if 3# beltpack has finished code matching, CH4 will flash slow). The code matching process is same as 1# and 2# beltpack. After 3# beltpack succeed in code matching, press “VOX” button to continue with 4# beltpack code matching.

After code matching successfully, the channel light and beltpack working light are both on. Turn off the main station and beltpack. Code matching has finished.

BK-2400 BELTPACK

3.1 Low Battery and Code Indication Light

Low battery and code indication light is bio-color LED light, low battery is red, code indication light is green.

Code Matching

For details, please read item 2.6

Low Battery Indication

BK-2400 uses 3xAA size normal or chargeable batteries. If battery voltage is lower than 3.45V, low battery indication lights red, remind change the battery in time.

MIC button and MIC LED

Turn on microphone, the green indication light is on. Indicates beltpack and main station is on standby status.

Press beltpack "MIC" button will turn on the microphone channel and MIC LED, press again will turn off.

When belt pack detected the corresponding channel on main station is turned on. MIC LED will flash fast, means the main station is calling.

3.3 Function setting

Open beltpack battery cover and take out battery, there is a double-digit dipper. They are VOX and MIC gain setting switch.

VOX setting

When it is set as ON, MIC button can be controlled by voice. If audio signal which is collected by main station microphone is over than the preset value, the microphone input channel is turned on; If audio signal is not been detected or lower than preset value in ten seconds ,the microphone input channel is turned off.

Set VOX dipper as OFF to disable the VOX function.

Mic Select

Set Dyn to "ON" position when use Dynamic microphone headset.

Set Dyn to "OFF" position when use Electric microphone headset.

Volume Adjustment

When beltpack working, press “▲” / “▼” to control audio level which hear in ear. There are total 8 different audio levels. When beltpack on, the volume level is default set as middle level (4th level). When the adjustment is reached maximum or minimum, headset can hear two “beep” sounds.

4. Note

- 2.4GHz digital wireless signal is weak on penetration, so the beltpack and main station should be placed on sight. If there is wall between beltpack and main station, antenna can be put where beltpack can see it.
- 1#, 2# beltpack are same. They have no order to use with code matching.
3#, 4# beltpack are same. They have no order to use with code matching.
But 1# / 2# beltpacks cannot swap with 3# / 4# beltpacks.
- The main station antennas are divided to group A and B. Every group has 2 pcs same antennas. Group A and B antennas SMA socket are different. They cannot swap. Channel 1, 2 corresponds to group B antenna. Channel 3, 4 corresponds to group A antenna.
- Beltpack battery voltage effects system sensitive.