

# **MS20**

# User Manual

Mesh Group Intercom System

q www.ejeas.com

# Product Details Antenna LED Light • Blue 🚄 Red -Green 🚄 EJEAS\* 11 USB Volume + M Button Charging Volume -Phone/ Interface/ Power Button Headphone Jack



MS20 Intercom



Bluetooth Intercom



Music Share



Auto Phone Answering



Voice Assistant



FM Radio



Support EUC Remote Support Mobile App



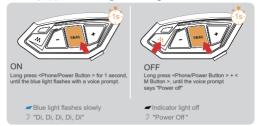
# **Product Operation**

# Operation Diagram



# Basic Operation

Power ON/OFF Please charge it before using



Reset: It will automatically power off while charging and can be used while charging after powering on.

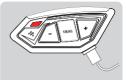
# Low Battery Indication



When the battery is low, the red light flashes twice with a voice prompt "Low Battery".

When the battery is extremely low, the device will automatically power off.

# Charging Indication



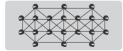
The red light is always on when using USB charging.

Battery Inquiry: After connecting to the phone via Bluetooth, you can see the power icon on the phone side.

# Mesh Intercom



When entering the Mesh network, Bluetooth music can be played at the same time. When someone speaks, it will automatically switch to Mesh intercom, no one speaks after a parior of time will supervisionally network the music.



Mesh intercom is a multi-hop technology mesh network intercom (Communication frequency 470-488MHz). On account of large number of participants and unrestricted location, people are able to move at will within the effective range. It is not only superior to the traditional Bluetcoth chain intercom, but has a longer transmission distance and better anti-interference ability.

Features: Intercom with up to 20 people, 5 channels in total. Voice can be relayed and teams have a maximum communication distance of about 2 kilometers. If participating in campaign mode as a listener, there is no limit to the number of people who can join the intercom in a listen-only manner.

# Microphone Mute



When using Mesh Intercom, you can mute the microphone with a short press of the < M Button >, so that the sound of your own voice will not be sent to others.

? "Microphone Mute"

#### Press <M Button> to unmute.

? "Microphone unmute"

### VOX Voice Sensitivity

When using Mesh intercom, the system will enter a sleep mode when there is no speech detected. Speaking will immediately activate the system and start the intercom. Users can adjust the voice activation sensitivity to suit their own voice and avoid false activations or the need for excessively loud sounds to activate the system.

There are 5 levels of sensitivity settings, default level 3. Level 5 has the highest sensitivity and is the easiest to activate the system, level 1 has the lowest sensitivity.



After turning on Mesh intercom, press and hold the<M Button>+<Volume +>to cycle through sensitivity.

1->5->1 cycle switching.

7 "{VOX n} (n is 1~5, indicating 5 levels) "

### Pairing Steps as Members:



All devices first enter the intercom pairing state, long press <M Button> (about 5s) until you hear a prompt and the red light and green light flash alternately.

Red light and green light flash alternately 
"Mesh Pairing"



- 2 Take one of them as the paired server, press
  <M Button>, you will hear a beep and the red
  light and green light will flash alternately.
  - Red light and green light flash alternately

Wait for a moment and hear "Pairing Successful" from all devices, which means the pairing is successful.

2 "Pairing Successful"

Wait a few moments and you hear the prompt "Channel n, xxx.x megahertz" from all the intercoms, you can start communicating and hear each other's voices

#### Intercom Reconnection



When you power on the intercom for the next use, short press the <M Button>. You will hear the prompt "Join the Mesh." Wait for a moment, and you will hear the , prompt " Channel n, xoxx. megahertz", you can talk to each other.

#### Turn off MESH Intercom



Press and hold the <M Button>
(about 1s) to turn off Mesh Intercom .
The voice prompts "Mesh Close".

If the device is powered off without turning the intercom off, the intercom will be automatically restored upon the next power-on.

# Pairing Steps as Listeners:

To become a team listening role, the prerequisite is that the other intercoms have been paired to form a team simultaneously. The pairing steps is taken as followed



- Take the intercom to be paired, enter listening mode pairing, long press <M Button> + <Volume -> (about 5s), and prompt "Listen Mesh Pairing", the red light and green light will flash alternately
- Red light and green light flash alternately

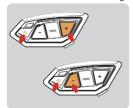
  "Listen Mesh Pairing"
- (Fig. 1)
  - Paired Server
- Take an intercom that has been paired as a paired server, entering listening mode pairing, and press and hold «M Button» + «Volume » (about 5s) to prompt "Listen Mesh Pairing". Note: Unjoined machines can only be joined again through the server.
  - ? "Listen Mesh Pairing"



- Short press the <M Button>, you will hear a beep and the red light and green light will flash alternately.
  - Red light and green light flash alternately

Wait a moment and hear "Pairing Successful" from all intercoms. Wait a few more minutes and hear "Channel n, xxxx MHz". This means that you have joined the intercom network and can communicate with others.

# Intercom Channel Switching



There are 5 channels in total, short press <M Button> + <
Volume ->/<Volume +> to switch channels
forward or backward. Note that the whole team needs
to keep the same channel to talk to each other.

? "Channel n, xxx.x MHz"

# Bluetooth Intercom

#### How To Pair With The Device



- 555
- - Red light and blue light flash alternately
  - 2 "Intercom Pairing"
- The other intercom enters the pairing state using the same operation. After the two intercoms discover each other, one of them will initiate the pairing connection.

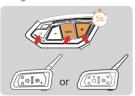
#### The connection is successful and the intercom begins.

? "Pairing Successful"



- When both Mesh intercom and Bluetooth intercom are enabled, when no one is speaking on the Mesh network (including oneself), it will automatically switch to Bluetooth intercom.
- When someone is speaking on the Mesh network (excluding oneself) while in Bluetooth intercom, Mesh will automatically preempt and switch to Mesh Intercom status, Bluetooth intercom is not working.
- When you are in Bluetooth intercom and want to speak to others on the Mesh network, simply press

#### Pairing with The Old Models

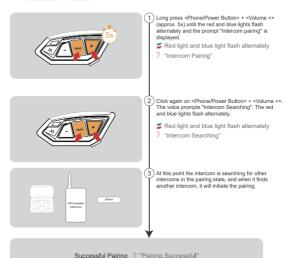


- (1) Simultaneously press and hold <Phone/Power Button> + <Volume +> + <M Button> for approx. 5 seconds to start pairing (red and blue lights flash alternately).
  - Red light and blue light flash alternately

    Intercom Pairing"
- 2 For older models (V6/V4) follow the instructions to enter the search and wait for successful pairing.

#### Pairing With Headsets or Other Branded Bluetooth Intercoms Search

Note: It is not guaranteed to be compatible with all Bluetooth headsets or



#### Intercom Connection



#### Intercom Disconnection



# Mobile Phone Pairing

This intercom supports connection to mobile phones for playing songs, making calls, and waking un voice secietante. Un to 2 mobile phones can be connected at the same time



After nowering on the device press and hold (approx 5s) the <Phone/Power Rutton> until the red and blue lights flash alternately and the voice prompts "Dhone Dairing"

Red light and blue light flash alternately





The phone searches for the device named "MS20" using Rivetooth Click on it to connect

Connection - Blue light double flashes slowly successful ? "Pairing Successful Connected"



Current battery level is displayed on the phone's Bluetooth icon

(Mobile phone HEP connection required)

#### Rivetooth Reconnection With Mobile Phones

After switching on, it automatically connects back to the last connected phone Bluetooth. When there is no connection click on the < Phone/Power Button > to reconnect with the last mobile device that was connected to Bluetooth





### Mobile Control

#### Call Answering

When a call comes in. click on the <Phone/Power Button>



# Call Rejection



Call Redial

Cancel Redial









When a call come press the <Phone/Power Rutton> the <Phone/Power for about 2s

During a call click on Button>

music quickly doubleclick the <Phone/Power Rutton>

During redial click on Chone/Power Button>

# Phone Priority

When a call comes in it will interrupt Bluetooth music. FM radio, intercom, and resume after hanging up.



Voice Assistant When in standby/playing music, press and hold <Phone/Power Button>,



# Music Control

Play/Pause







Music Playing



Volume -



Volume +





## FM On/Off 76~108MHz

After turning on the FM radio, it will automatically search for stations and play the found station. FM can be turned on during the intercom, and you can listen to the radio while talking.



Press and hold <Volume +> + <Volume ->
(approx 1s) The prompt " FM Radio "

2 "FM Radio"

Press and hold <Volume +> + <Volume -> (approx. 1s) .The prompt " FM Radio Off ".

# Switching Channels





# Volume Adjustment (FM with a total of 7 volume levels)

When using FM alone





#### When FM + Intercom





### Music Share

Share the music played by Bluetooth on your phone to another device, and this function cannot be used during Bluetooth intercom.

This function cannot be used when two phones are connected simultaneously.



Take an intercom as the host, connect it to the phone,



2 Press the <Phone/Power Button>+<Volume -> at the same time between the host and slave to enter the music sharing search connection state

? "Music Share"



? "Music Share Connected"



Press the <Phone/Power Button>+<Volume -> again to exit music sharing.

? "Music Share Disconnected"

# Buttons Introduction

Buttons	Actions	Function	
	71000110	T dilocoli	
Volume +	Short press	Volume +	
	Long press	Next song when music is playing. Increase the frequency when FM is on	
	Double click	FM volume +	
Volume -	Short press	Volume -	
	Long press	Previous song when music is playing. Decrease the frequency when FM is on	Р
	Double click	FM Volume -	
Phone Button	Short press	01. Answer a call when it comes in 02. On call, hang up 03. Music play/pause 04. When no mobile phone is connected Connect the last connected phone	
	Long press	Reject calls Voice assistant	
	Double click	Last number redial	
A Button	Short press	01. Turn on mesh intercom 02. Mute/unmute microphone when mesh is connected	
	Long press	Turn off Mesh Intercom	
	Double click	Switch VOX sensitivity during Mesh intercom	
B Button	Short press	01. Turn on mesh intercom 02. Mute/unmute microphone when mesh is connected	
	Long press	Turn off Mesh Intercom	
	Double click	None	



Buttons	Actions	Function
C Button	Short press	Initiate Bluetooth Intercom Connection
	Long press	Disconnect the intercom
	Double click	Music sharing start/end
FM Button	Short press	Turn FM on/off
Volume - + FM Button	Super Long Press	Clear handle pairing records

# FUC Pairing



Drace and hold the chone/Dower Buttons + cVolume -> for about 5s to enter the nairing mode, the voice prompts "Remote Control Pairing" the red and blue lights flash alternately if the nairing is not successful within 2 minutes, exit the nairing

2 "Remote Control Pairing"



Press and hold the < FM Rutton >+ < Volume - > on the handle for about 5s to clear the record until the red and blue lights come on

I Intil the red and blue lights come on



Click any button of EUC

Pairing Successful ? "Pairing Successful"

(No successful pairing within 2 minutes, exit the pairing)

# **EUC Handle Operation**

Mesh intercom reconnect/disconnect and mobile phone control are the same as on the machine







# Restore Default Settings



Press and hold <Phone/Power Button> + <Volume +> + <Volume -> for about 5s, the voice prompts "Restore Default Settings" to delete the pairing record, and then automatically reboot the phone.

? "Restore Default Settings"

# Firmware Upgrades





Connect to the computer with a USB data cable. Download and open the "EJEAS Upgrade.exe" upgrade software. Click on the "Upgrade" button to start and wait for the upgrade to complete.

# Mobile App



Download and install EJEAS SafeRiding mobile





ins

Andriod



Press and hold (approx. 5s) <Phone/Power Button> until the red and blue lights flash alternately to enter phone pairing.

Red light and blue light flash alternately



3 Open the APP, click on the Bluetooth icon in the top right corner, the interface shows the name of the intercom device searched, select the intercom device to be connected, click to connect. (IOS system need to enter the phone pairing again, in the system settings->Bluetooth, connect audio Bluetooth).

Open the APP the next time you use it. Click the Bluetooth icon in the top right corner and click to select Intercom for connection from the paired devices.

APP provides intercom group, music control, FM control, switch off, check authenticity and other functions.