



FREECOM 1 MANUAL





For easy reference while on the road, download the Pocket Guide from www.cardosystems.com/wp-content/uploads/guides/pocket/en/freecom1.pdf.

This is version 2.0 of the FREECOM 1 Manual. The latest version of the manual in your preferred language and various tutorials can be found at www.cardosystems.com/wp-content/uploads/guides/manual/en/freecom1.pdf

Register your FREECOM 1

Registering your device allows you to download software patches, enjoy new features that are offered from time to time, and most importantly, assures smooth handling of any warranty issues you may have. In the future, your registered FREECOM 1 may also be eligible for free product upgrades.

It's easy, just visit www.cardosystems.com/update and you'll be done in no time. Also, rest assured: Cardo does not share your details with others.

Be SMART, register your FREECOM 1.

CONTENTS

1. Introduction	4
2. Getting Started	5
2.1 Getting to Know Your FREECOM 1	5
2.2 Charging the FREECOM 1	5
2.3 Switching Your Unit On/Off	5
2.4 Using Your FREECOM 1	6
2.5 Pairing Your Unit to Bluetooth Devices	6
3. On the Road	8
3.1 Basic AUDIO Functions	8
3.1.1 Making and Receiving Phone Calls	8
3.1.2 Streaming Music	9
3.2 Listening to FM Radio	10
3.2.1 Personalizing Your Device	10
4. Troubleshooting	13
4.1 Soft Reset	13
4.2 Reset Pairing	13
4.3 Reset to Factory Settings	13
4.4 FAQ	13
Appendix A. FREECOM 1 LED Indications	14
5. Glossary	15
6. Support	16



1. INTRODUCTION

Thank you for choosing the Cardo FREECOM 1 communication and entertainment system for motorcycle helmets.

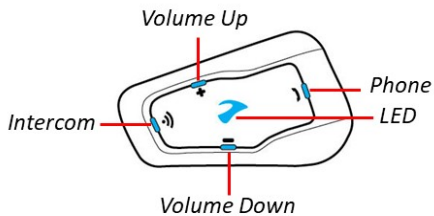
We wish you a great FREECOM 1 experience and encourage you to [visit www.cardosystems.com/support](http://www.cardosystems.com/support) regarding any questions, suggestions or comments you may have.

If you have not yet installed the FREECOM 1 unit on your helmet, please install it as described in the Installation Guide provided in the package.

And don't forget to register your FREECOM 1 at www.cardosystems.com/update.

2. GETTING STARTED

2.1 GETTING TO KNOW YOUR FREECOM 1

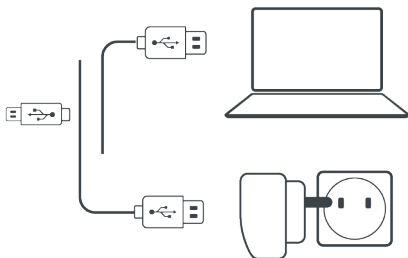


2.2 CHARGING THE FREECOM 1

Make sure that your FREECOM 1 battery is charged for at least 4 hours before initial use.

To charge the unit:

- Using the supplied USB cable, connect your computer or wall charger to the USB port on your FREECOM 1.



- Charging with the wall charger is faster than via a computer USB port.
- Charging your unit switches it off automatically. To use your unit while it is being charged, switch it on. (see [Switching Your Unit On/Off](#) on page 5).

While charging, the LED indicates the charging status as follows:

- Red LED on – charging
- Red LED off – charging complete

2.3 SWITCHING YOUR UNIT ON/OFF




To switch your FREECOM 1 on:

- Press both  and  for **1 second**.  The speaker plays an ascending tone and a voice message greets you.

The LED confirms your FREECOM 1 is on:

- Normal and low battery – LED flashes blue three times.
- Charging – LED flashes red and purple three times.

To switch your FREECOM 1 off:

- Press both  and . 
- The LED flashes red three times, confirming that your unit is switching off. The speaker plays a descending tone and a voice message, "Goodbye".

2.4 USING YOUR FREECOM 1

You can operate the various features of your FREECOM 1 in the following ways:

- Press a button or combination of buttons on the unit.
- Use the Cardo Mobile App on your mobile device (once it is paired with the unit).

2.5 PAIRING YOUR UNIT TO BLUETOOTH DEVICES


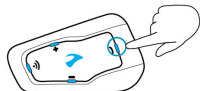
Your FREECOM 1 has two Bluetooth channels for connection to Bluetooth devices such as mobile phones, GPS devices, and Bluetooth music players with A2DP.

To connect your unit to a Bluetooth device, you must first pair them. Once paired, they automatically recognize each other whenever they are within range.




If you are pairing more than one device, Cardo recommends that you pair the mobile phone to channel 1, and the additional device (such as GPS, music player or additional mobile phone) to channel 2.



If you are pairing the unit to more than one mobile phone, the phone paired with channel 1 is the default phone for outgoing calls.

To pair Bluetooth channel 1 to a mobile phone:

- Enable Bluetooth on the mobile phone.
- On the unit in standby mode, press  for **5 seconds**. 
The LED flashes red and blue.
- On your mobile phone, search for Bluetooth devices.
- When your FREECOM 1 appears in the list of available devices, select it.
If prompted for a PIN or Passkey, enter 0000 (four zeros).
The phone confirms that pairing has succeeded and the LED flashes purple for 2 seconds.

To pair Bluetooth channel 2 to another Bluetooth device:

- Enable Bluetooth on the device (for example, your mobile phone, GPS device, or music player).
- On the unit in standby mode, press  for **5 seconds**. The LED flashes red and blue. 
- Tap  twice. The LED flashes red and green.


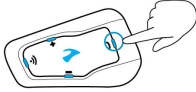
- If you are pairing a GPS device, press . 
The LED flashes slower.

5. On the device you are pairing, search for Bluetooth devices.
6. When your FREECOM 1 appears in the list of available devices, select it.
If prompted for a PIN or Passkey, enter 0000 (four zeros).


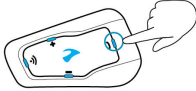



The device confirms that pairing has succeeded and the LED flashes purple for 2 seconds.

- If pairing is not completed within 2 minutes, the unit automatically returns to Standby.
- If you have paired two different mobile phones directly to your FREECOM 1, set one as default for making calls (see [Setting the Default Mobile Phone](#) on page 11).
- Not all Bluetooth mobile phones broadcast Bluetooth Stereo music (A2DP) even if the phone has an MP3 player function. Consult your mobile phone's user manual for more information.
- Not all Bluetooth GPS devices allow connection to Bluetooth audio devices. Consult your GPS User Manual for more information.

To cancel the pairing process:

- Press  for **2 seconds**. 
The LED stops flashing red and blue/green.

To reset all Bluetooth device pairing:

1. Press  for **5 seconds**. 
The LED flashes red and blue.
2. Press  and  for **2 seconds**. 
The LED flashes purple 5 times, confirming that pairing has been reset.

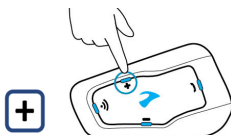
3. ON THE ROAD

FREECOM 1 makes it easy for you to receive phone calls and listen to music in a convenient and safe manner.


3.1 BASIC AUDIO FUNCTIONS

The basic audio functions are the same whether you are listening to music, speaking on the intercom, or having a phone conversation.

To turn the volume up:

- 
 Tap **+**.
 An increasingly louder tone is played on the speaker until you reach the maximum volume, as indicated by the maximum volume tone.

To turn the volume down:

- 
 Tap **-**.
 An increasingly quieter tone is played on the speaker until you reach the minimum volume, as indicated by the minimum volume tone.

To mute the microphone and lower the speaker volume to the minimal level:

- 
 Simultaneously tap **+** and **-**.



To unmute the microphone and raise the speaker volume to the previous level:

- Tap **+** or **-**.
 An ascending tone is played on the speaker.


3.1.1 MAKING AND RECEIVING PHONE CALLS



You can use your mobile phone to make and receive phone calls while paired to your FREECOM 1.

To make a phone call:

- To dial using your mobile phone's voice dial option, simultaneously tap  and , then make your call as


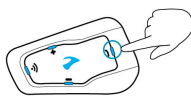
per the instructions for your mobile device.



- To redial the last number called on your mobile device, press and hold down  for **2 seconds**.
- To dial your preset speed dial number, tap  **3 times**. (The speed dial number must be set in the Cardo Mobile App prior to use.)

- If you connected two mobile phones to your unit, you cannot make an additional phone call from the other phone while a phone call is already active.

To answer a call:

- Tap   or say "Hey" in a loud voice.

To reject a call:

- Press  for **2 seconds**.

To ignore a call:

- Simultaneously tap  and , or wait 30 seconds.

To end a call:

- Tap  

3.1.1.1 SWITCHING BETWEEN TWO CALLS ON TWO MOBILE PHONES

Your FREECOM 1 can toggle between two calls on two mobile phones when both mobile phones are paired to your unit.

To toggle between two calls on two mobile phones (without disconnecting either call):

- Tap  twice. 

To disconnect the current call and switch to the other call:

- Tap .

3.1.1.2 STREAMING MUSIC

You can stream music from your paired device to your FREECOM 1.

To start music streaming from your paired device:

- Tap  

To stop music streaming:

- Press  for **2 seconds**.

To skip to the next track (while streaming):

- Tap .

To skip back to the previous track (while streaming):

- Tap  twice. 

3.1.2.1 SWITCHING MUSIC SOURCES

If two music (A2DP) audio sources are paired, FREECOM 1 uses the audio source from which you last played music.

To switch to the other audio source:

1. Stop music (A2DP) playback from the current device (see [Streaming Music](#) on page 9).
2. Play music (A2DP) from the other device.

FREECOM 1 automatically remembers your last played device.

3.2 LISTENING TO FM RADIO

The FREECOM 1 is equipped with a built-in FM radio.

To turn on the FM radio:

- Tap  twice. 

When you switch on your FM radio, the station that was playing when you last switched off resumes playing.

To turn the FM radio off:

- Press  for 2 seconds. 





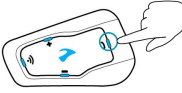
To skip to the next station:

- Tap .

To skip back to the previous station:

- Tap  twice. 

To scan for and select a station:

1. Simultaneously tap  and . 
The FM radio plays each station that it finds for several seconds.
2. When you hear a station you want to select, tap . 

To store a scanned station in the active preset:

- Tap  within 20 seconds of stopping the scan.

3.2.1 PERSONALIZING YOUR DEVICE

Get the most out of your FREECOM 1 by changing the settings and customizing your unit according to your own personal preferences, using either of the following methods:

- Cardo Mobile App on iOS or Android devices.

- Cardo Update on Windows / Mac - minimum requirements - Windows® 7 / Mac OS X 10.8
- Unit buttons.

Cardo recommends you customize your settings before going out on the road. You can adjust any of these settings as required after experiencing them under road conditions.

Object	Default Value	Description	Cardo Mobile App (iOS/Android)	Cardo Update
AGC sensitivity (Off/Low/Medium/High)	Medium	AGC automatically adjusts speaker volume according to ambient noise and riding speed. For example, when set to Low, higher ambient noise will cause the volume increase to kick in at a higher level.	✓	✓
Bluetooth friendly name	FREECOM 1	Sets the name that appears on your phone while pairing and in the Cardo app.	✓	✓
FM Band	According to Your Region	If you are in Japan, select Japan . Otherwise, select Worldwide .	✓	✓
Language	According to Your Region	Voice announcements language (see Spoken Status Announcements below).	✓	✓
Mobile priority	Mobile 1	If you paired your unit to two mobile phones, you must set one of them as the default phone for outgoing calls.	✓	✗
RDS (Enable/Disable)	Disable	Radio Data System allows the radio to automatically retune to the strongest frequency available for the FM station you are listening to when the signal becomes too weak.	✓	✓
Set speed dial numbers	Empty	Pre-set phone numbers for automatic dialing.	✓	✓
Set the 6 FM radio presets	107.5	Pre-set FM radio stations.	✓	✓
Spoken Status Announcements (Enable/Disable)	Enable	Voice announcements inform you to whom or to what device you are connected.	✓	✓


AGC performance may vary based on environmental conditions, including riding speed, helmet type, and ambient noise.

3.2.1.1 SETTING THE DEFAULT MOBILE PHONE

If you paired your unit to two mobile phones, you must set one of them as the default phone for outgoing calls.

If you do not set a default phone, the phone that you first paired with your unit is automatically set as the default phone.

To set the default phone:

- During a mobile call, press  for **5 seconds**. 

3.2.1.2 USING PARALLEL AUDIO STREAMING

Your FREECOM 1 sets the various audio sources to either foreground (volume remains the same) or background (volume reduced) as described in the following table:

Mobile Phone 1/2	GPS	Music
Foreground	Foreground	
	Foreground	Background
		Foreground

3.2.1.3 AUDIO SOURCE PRIORITIES

If Parallel Audio Streaming is disabled, FREECOM 1 manages the audio sources you hear through the speakers according to the following audio source priorities.

Priority	Audio Source
Higher Priority	Mobile phone, GPS device instructions
↑	Music
Lower Priority	FM Radio

4. TROUBLESHOOTING

4.1 SOFT RESET


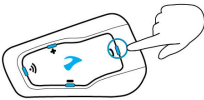


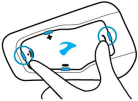
If your FREECOM 1 stops responding, reset it in one of these ways:

- Turning it off and then on again (see [Getting Started](#) on page 5).
- Using the supplied USB cable, connect your unit to the computer or wall charger for 30 seconds.

4.2 RESET PAIRING

The options below delete all paired units or devices.




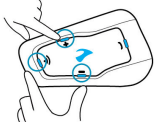
To reset mobile device pairing:

1. While in standby mode, press  for **5 seconds**. 
The LED flashes red and blue.
2. Press  and  for **2 seconds**. 
The LED flashes purple 5 times slowly, confirming that pairing has been reset.

4.3 RESET TO FACTORY SETTINGS

This option deletes all paired units, devices and all configuration settings.

To perform a factory reset through the unit:

1. Check that your FREECOM 1 is in Standby mode (see [FREECOM 1 LED Indications](#) on page 14).
2. Simultaneously press  +  +  for **5 seconds**. 
The LED flashes purple 5 times slowly, confirming that pairing has been reset.

4.4 FAQ

Additional answers to common problems can be found at www.cardosystems.com/support/freecom-1/.

APPENDIX A. FREECOM 1 LED INDICATIONS

Your FREECOM 1 operates in various modes. Each mode consists of a group of features currently available for your use. For example, when FREECOM 1 plays music, it will be in music playing mode, enabling features related to playing music such as skipping to the next and previous tracks.

Events are considered to occur whenever you operate a feature and when FREECOM 1 responds. For example, turning on music is an event.

The device's current mode is indicated by the unit LEDs. You also hear voice announcements on your unit for mode changes and events.

The following table shows LED indications for modes and events according to the current battery state.

LED	Flashing	Battery State	Mode or Event
Blue	Fast (three times)	Normal Low Battery Charging	• Power on
Blue	Slow (repeated at 3-second intervals)	Normal	• Standby
Blue	Slow twice (repeated at 3-second intervals)	Normal	• Audio active (intercom, FM, A2DP, GPS)
Purple	For 2 seconds	Normal Low Battery Charging	• Mobile pairing successful • Mobile connected
Purple	Slow (5 times)	Normal Low Battery	• Reset pairing
Purple/Red	Purple twice slowly, then red	Charging	• Incoming/outgoing call (mobile) • Audio active (FM, A2DP, GPS)
Purple/Red	Slow purple and red (repeating)	Charging	• Standby
Red	Slow twice (repeated at 3-second intervals)	Low Battery	• Audio active (FM, A2DP, GPS)
Red	Fast (repeated at 3-second intervals)	Low Battery	• Standby
Red	Fast (repeating fast)	Normal Low Battery Charging	
Red	Fast (3 times)	Normal Low Battery Charging	• Power off
Red	Remains on	Charging	• Off
Red/Blue	Alternating fast	Normal Low Battery Charging	• Pairing Mobile 1
Red/Blue	Alternating slow	Normal Low Battery	• Pairing GPS 1
Red/Green	Alternating fast	Normal Low Battery Charging	• Pairing Mobile 2
Red/Green	Alternating slow	Normal, Low Battery	• Pairing GPS 2
Yellow	For 2 seconds	Normal Low Battery Charging	• Microphone not detected

5. GLOSSARY

Term/Abbreviation	Description
A2DP	Advanced Audio Distribution Profile (for music). A protocol for playing music over Bluetooth.
AGC sensitivity	AGC (Automatic Gain Control) automatically adjusts speaker volume and microphone sensitivity according to ambient noise and riding speed.
Device	Mobile phone, GPS or music player.
Language	Voice announcements and voice commands language.
Unit	Cardo or non-Cardo Bluetooth Communication system.
Voice control	Voice activation (by saying a word or phrase) of certain features for hands-free operation.
Voice control sensitivity	Adjusts your microphone sensitivity for voice activation while you are riding.

6. SUPPORT

For additional information:

 www.cardosystems.com/support/freecom1/

To avoid potential problems and to receive our support and warranty coverage, we strongly recommend buying our products only from authorized Cardo dealers.

Your favorite brick-and-mortar store is always your best bet. Unauthorized online resellers and online auction sites such as eBay are not among Cardo's authorized dealers, and purchasing our products from such sites will be at your own risk. Cardo strives to provide quality products and exceptional customer service. We select dealers who share that vision. Buying grey market items from unauthorized online dealers is counterproductive and also adversely affects unsuspecting online consumers who may be purchasing used, counterfeit or defective products or devices whose warranties are void. Protect your investment by purchasing genuine Cardo products only from authorized dealers.

© 2019 Cardo Systems

All rights reserved. Cardo, the Cardo logo and other Cardo marks are owned by Cardo and may be registered. All other trademarks are the property of their respective owners. Cardo Systems assumes no responsibility for any errors that may appear in this document. Information contained herein is subject to change without notice.