



CARDO PRO1

User Manual



DISCLAIMER

[Need to be complete this section]

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Overview

CARDO PRO1 is a compact embedded high-performance communication module designed for use by professional teams. PRO1 redefines the boundaries of what is possible with short-range critical voice-communications by wrapping together a unique combination of Bluetooth and a Dynamic Mesh Communication (DMC®) intercom technologies. Bringing in years of field experience, Cardo's new PRO1 delivers an autonomous group-communication performance like no other solution on the market today.

Designed for professional, safety/security and industrial markets, CARDO PRO1 connects up to 15 team members on the go. Always-on communication coupled with natural voice operation, connectivity to popular 2-way radios, built-in FM radio, smartphone music streaming and hear-through capabilities is a unique blend of top-class communication offering.

Engineered to operate in hazardous environments, the PRO1 module integrates seamlessly into a variety of protective gear, such as earmuffs, helmets, and dedicated communication terminals from multiple 3rd party manufacturers.

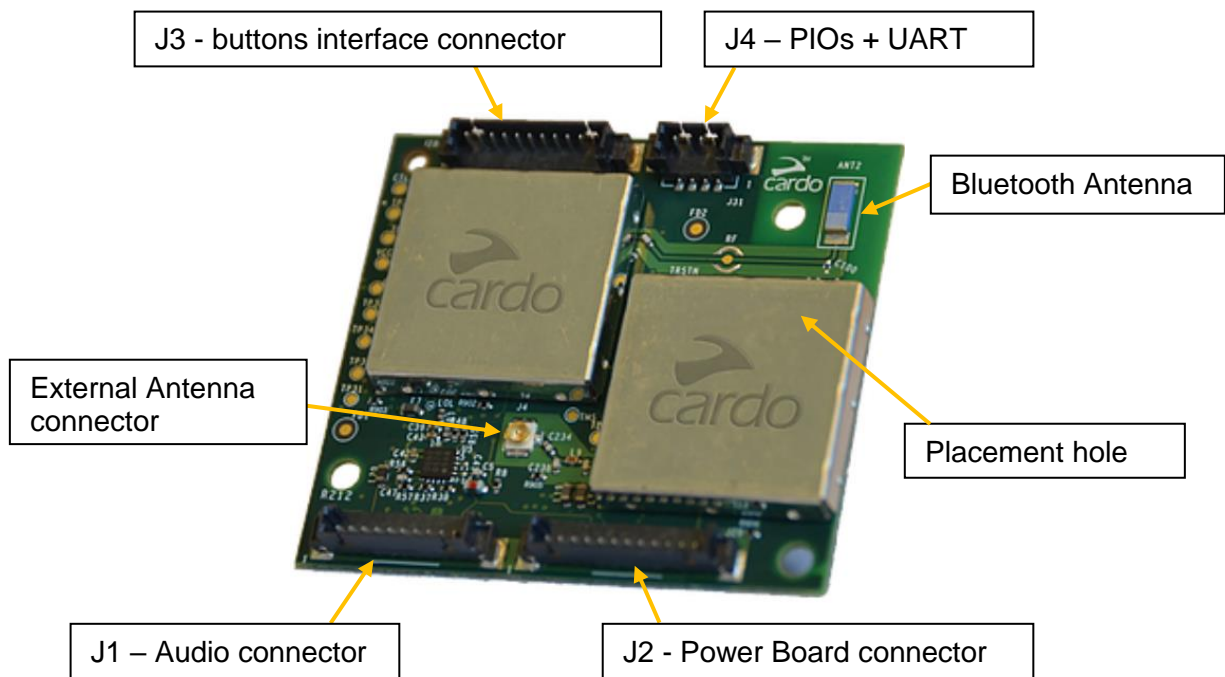
Operating without the need for any infrastructure PRO1 maintains multi-party intercom among free-moving team members in virtually any environment. With millions of intercom products sold to date, CARDO PRO1 is a mature solution from day one, covering all your solids and then tops them up with game-changing capabilities.

Module overview

Having two transceivers the CARDO PRO1 simultaneously connects to a Bluetooth mobile phone/2-Way radio and up to 14 peers to create a mesh-based group Intercom.

The CARDO PRO1 can be integrated using four connectors as shown below.

PCB size: 45x50x7.3mm (including shields and connectors)





Hardware connections

The CARDO PRO1 has four connectors using as interface for customer hardware.

J1 – Audio connector

| Pin number | Function | Gauge |
|------------|-------------------------|-------|
| 2 | GND Speaker | 30 |
| 3 | Speaker left - Optional | 30 |
| 4 | Left microphone | 30 |
| 5 | GND Mic. | 30 |
| 6 | PTT output to Jack Pin1 | 30 |
| 7 | PTT input to Jack Pin3 | 30 |
| 8 | PTT GND to Jack Pin4 | 30 |
| 9 | PTT to Jack pin2 | 30 |
| 10 | Voice Mic GND | 30 |
| 11 | Voice Mic | 30 |

Mate to Molex 51021-1000

J2 - Power Board connector

| Pin number | Function | Gauge |
|------------|--|-------|
| 13 | GND | 26 |
| 12 | Power from battery | 26 |
| 11 | USB D- | 30 |
| 10 | USB D+ | 30 |
| 9 | USB power on reset initiator - USB Vbus | 30 |
| 8 | I2C SCLK | 30 |
| 7 | I2C SDIO | 30 |
| 6 | Left Speaker/Muff speaker/Speaker GND/Power from battery | 26 |
| 5 | Fuel Gauge interrupt | 30 |
| 4 | Mic GND and FM antenna | 30 |
| 3 | Right Mic | 30 |
| 2 | Right Speaker | 26 |

Mate to Molex 51021-1200



J3 - buttons interface connector

| Pin number | Function | Gauge |
|------------|--|-------|
| 2 | GND | 30 |
| 3 | Initial power to initiate "on" to connect to MFB | 30 |
| 4 | Blue led Indication | 30 |
| 5 | Red led Indication | 30 |
| 6 | Green led Indication | 30 |
| 7 | VCC to operate the buttons | 30 |
| 8 | Mic Mute button | 30 |
| 9 | DMC button | 30 |
| 10 | Volume Up | 30 |
| 11 | Volume Down | 30 |
| 12 | MFB Multi-Function button | 30 |

Mate to Molex 51021-1100

J4 – Future use

| Pin number | Function | Gauge |
|------------|-----------------------|-------|
| 2 | NA or RTS | NA |
| 3 | Spare PIO (10) or CTS | 30 |
| 4 | Spare PIO (23) or URX | 30 |
| 5 | Spare PIO (21) or UTX | 30 |

Mate to Molex 51021-0400



Operating the CARDO PRO1

Power On

To turn on the module, J3 pin 12 should be placed High for two seconds while the CARDO PRO1 is off.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|-----------|---------------|----------------|-----|-----|-----|------|
| MFB High | J3 pin 12 | I | Weak pull down | 2 | | | V |
| MFB low | | | | | | 0.4 | V |

Power Off

To turn on the module, J3 pin 12 should be placed High for two seconds while the CARDO PRO1 is on.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|-----------|---------------|----------------|-----|-----|-----|------|
| MFB High | J3 pin 12 | I | Weak pull down | 2 | | | V |
| MFB low | | | | | | 0.4 | V |

Mobile phone pairing

To place the module in Bluetooth pairing mode for mobile phone pairing, J3 pin 12 should be placed High for Five seconds while the CARDO PRO1 is on.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|-----------|---------------|----------------|-----|-----|-----|------|
| MFB High | J3 pin 12 | I | Weak pull down | 2 | | | V |
| MFB low | | | | | | 0.4 | V |

Two-Way Radio pairing

To place the module in Bluetooth pairing mode for Two Way Radio pairing,

1. J3 pin 12 should be placed High for Five seconds while the CARDO PRO1 is on.
2. J3 pin 12 should be placed High for 100msec (One to five seconds after step 1).

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|-----------|---------------|----------------|-----|-----|-----|------|
| MFB High | J3 pin 12 | I | Weak pull down | 2 | | | V |
| MFB low | | | | | | 0.4 | V |



Intercom Grouping (as a group member)

To place the module in intercom grouping mode as a group member (Joining an existing group), J3 pin 9 should be placed High for Five seconds while the CARDO PRO1 is on.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------------------|----------|---------------|----------------|-----|-----|-----|------|
| Intercom button High | J3 pin 9 | I | Weak pull down | 2 | | | V |
| Intercom button low | | | | | | 0.4 | V |

Intercom Grouping (as a group creator)

To place the module in intercom grouping mode as a group creator (Create a new group):

- J3 pin 9 should be placed High for Five seconds while the CARDO PRO1 is on.
- J3 pin 9 should be placed High for 100msec seconds (One to five seconds after step 1).

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------------------|----------|---------------|----------------|-----|-----|-----|------|
| Intercom button High | J3 pin 9 | I | Weak pull down | 2 | | | V |
| Intercom button low | | | | | | 0.4 | V |

Volume Up

To increase the volume of the module, J3 pin 10 should be placed High for 100msec.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------------|-----------|---------------|----------------|-----|-----|-----|------|
| Volume Up High | J3 pin 10 | I | Weak pull down | 2 | | | V |
| Volume Up Low | | | | | | 0.4 | V |

Volume Down

To decrease the volume of the module, J3 pin 11 should be placed High for 100msec.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|------------------|-----------|---------------|----------------|-----|-----|-----|------|
| Volume Down High | J3 pin 11 | I | Weak pull down | 2 | | | V |
| Volume Down Low | | | | | | 0.4 | V |

Operating the main voice menu

To start the main voice menu, J3 pin 12 should be placed High for 100msec.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|-----------|---------------|----------------|-----|-----|-----|------|
| MFB High | J3 pin 12 | I | Weak pull down | 2 | | | V |
| MFB low | | | | | | 0.4 | V |

Main voice menu functions are related to (According to current state):

- Mobile phone
- Music steaming
- FM radio

Operating the intercom voice menu

To start the Intercom voice menu, J3 pin 9 should be placed High for 100msec.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------------------|----------|---------------|----------------|-----|-----|-----|------|
| Intercom button High | J3 pin 9 | I | Weak pull down | 2 | | | V |
| Intercom button low | | | | | | 0.4 | V |

Intercom voice menu functions are related to (According to current state):

- Intercom features
- Level dependent
- Self-hearing
- Channels management

Initiate an Emergency call

Initiating an emergency call, will trig a mobile phone call to a pre-configured number and open a group call session automatically.

To initiate an emergency call, J3 pin 9 should be placed High for 100msec.

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------------------|----------|---------------|----------------|-----|-----|-----|------|
| Intercom button High | J3 pin 9 | I | Weak pull down | 2 | | | V |
| Intercom button low | | | | | | 0.4 | V |

Power supply

| Function | Pin | In/Out signal | Min | Typ | Max | Unit |
|--|-----------|---------------|---------------|-----|------|------|
| Power from Battery - Li Ion | J2 pin 12 | I | 2.9 | 3.8 | 4.2 | V |
| Power form 3 AAA Alkaline | | | 3V | 3.9 | 4.5 | V |
| Power form 3 AAA NiMH | | | 3V | 3.6 | 4.2 | V |
| Power form 2 AA Alkaline | | | 2V | 2.6 | 3 | V |
| Power form 2 AA NiMH | | | 2V | 2.4 | 2.8 | V |
| USB power on reset initiator - USB Vbus | J2 pin 9 | I | 4.2 | 5 | 5.75 | V |
| Initial power to initiate “on” to connect to MFB | J3 pin 3 | O | Per J2 pin 12 | | | |
| VCC to operate the buttons | J3 pin 7 | O | 3.2 | 3.3 | 3.6 | V |

Interfaces

I2C

| Pin number | Function |
|------------|----------|
| 8 | I2C SCLK |
| 7 | I2C SDIO |

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|----------|------------|---------------|----------------|-----|-----|-----|------|
| I2C High | J2 pin 7,8 | I/O | Strong pull up | 2 | | | V |
| I2C Low | | | | | | 0.4 | V |

USB

| Pin number | Function |
|------------|---|
| 13 | GND |
| 12 | Power from battery |
| 11 | USB D- |
| 10 | USB D+ |
| 9 | USB power on reset initiator - USB Vbus |

| Function | Pin | In/Out signal | Digital state | Min | Typ | Max | Unit |
|---------------|--------------|---------------|----------------|---------|-----|---------|------|
| I2C High | J2 pin 7,8 | I/O | Strong pull up | 2 | | | V |
| I2C Low | | | | | | 0.4 | V |
| USB D+/- High | J2 pin 10,11 | I | NA | 0.7xUSB | | | V |
| USB D+/- Low | | | | | | 0.3xUSB | V |
| USB D+/- High | J2 pin 10,11 | O | NA | 2.8 | | USB | V |
| USB D+/- Low | | | | 0 | | 0.2 | V |

Speakers and Voice microphone

| Function | Pin | In/Out signal | Min | Typ | Max | Unit | Note |
|---|--------------------------------|---------------|------|-------|-------|------|--|
| Output playback sampling Freq | Speakers output | O | 8 | | 48 | KHz | |
| Output/input SNR and Dynamic range | Speakers output and Mic inputs | I/O | | 92 | | dB | 16bit DAC/ADC |
| Left Speaker/Muff speaker power* | J2 pin 6 | O | 21.5 | 22.5 | | mW | 2.35V p-p min over 32 ohm |
| Right Speaker/Other Muff speaker power* | J2 pin 2 | | | | | | |
| Speaker left - Optional power* | J1 pin 3 | | | | | | |
| Left Speaker/Muff speaker BW | J2 pin 6 | O | 20 | 10000 | 20000 | Hz | For THD<=-40dB |
| Right Speaker/Other Muff speaker BW | J2 pin 2 | | | | | | |
| Speaker left - Optional BW | J1 pin 3 | | | | | | |
| Left Speaker/Muff speaker Power at AGC On and EN523 Compliance | J1 pin 4 to J2 pin 6 | O | 1 | | | mW | 0.5V p-p min over 32 ohm For 82dBa DRP |
| Right Speaker/Other Muff speaker Power at AGC On and EN523 Compliance | J2 pin 3 to J2 pin 2 | | | | | | |
| Speaker left - Optional Power at AGC On and EN523 Compliance | J1 pin 4 to J1 pin 3 | | | | | | |
| Left Speaker/Muff speaker Volume steps | J2 pin 6 | O | 5 | | | 15 | NA |
| Right Speaker/Other Muff speaker Volume steps | J2 pin 2 | | | | | | |
| Speaker left - Optional Power Volume steps | J1 pin 3 | | | | | | |
| Stereo cross talk isolation* | J2 pin 6 to pin 2 | 55 | 75 | | | dB | |
| Voice Microphone Bias | J1 pin 11 | O | 3.2 | 3.3 | 3.5 | V | |
| Voice Microphone Current source | J1 pin 11 | I | 2 | 3 | | mA | |
| Voice Microphone ended input signal to BT 0dB gain** (loopback) | J1 pin 11 | I | | 1.5 | 1.6 | Vp-p | Single ended signal |
| Voice Microphone ended input signal to Speakers 0dB gain** (loopback) | J1 pin 11 | I | | 1.5 | 1.6 | Vp-p | Single ended signal |

*1KHz Sin wave for Load of 32ohm and THD<=-40dB, No AGC.

** 1KHz Sin wave, THD<=-40dB.



Level Dependent/ Hear through microphones

| Function | Pin | In/Out signal | Min | Typ | Max | Unit | Note |
|---|----------|---------------|-----|------|------|------|---------------------|
| Hear through Microphone Right Bias | J2 pin 3 | O | 1.7 | 1.8 | | V | |
| Hear through Microphone Left Bias | J1 pin 4 | | | | | | |
| Hear through Microphone Right Current source | J2 pin 3 | I | 2 | 3 | | mA | |
| Hear through Microphone Left Current source | J1 pin 4 | | | | | | |
| Hear through Microphone Right inline resistance | J2 pin 3 | I | | 89 | | ohm | |
| Hear through Microphone Left inline resistance | J1 pin 4 | | | | | | |
| Hear through Microphone Right Single ended input signal 0dB gain** | J2 pin 3 | I | | 1.3 | 1.4 | Vp-p | Single ended signal |
| Hear through Microphone Left Single ended input signal 0dB gain** | J1 pin 4 | | | | | | |
| Hear through Microphone Right Single ended input signal 40dB gain** | J2 pin 3 | I | | 0.02 | 0.03 | Vp-p | Single ended signal |
| Hear through Microphone Left Single ended input signal 40dB gain** | J1 pin 4 | | | | | | |

*1KHz Sin wave for Load of 32ohm and THD<=-40dB, No AGC.

** 1KHz Sin wave, THD<=-40dB.

2 Way Radio

| Function | Pin | Digital state | In/Out signal | Min | Typ | Max | Unit |
|--|-----------------------|---------------|---------------|-----|-----|-----|------|
| PTT output to Jack Pin1 - to BT (loopback) | J1 pin 6 | NA | I | | 1.5 | 1.6 | Vp-p |
| PTT output to Jack Pin1 - to Speakers | J1 pin 6 | NA | I | | 1.5 | 1.6 | Vp-p |
| PTT input to Jack Pin3* | J1 pin 11 to J1 pin 7 | NA | O | | 1.5 | 1.6 | Vp-p |
| PTT to Jack pin2 High | J1 pin 9 | weak pull up | I | 2 | | | V |
| PTT to Jack pin2 Low | | | | | | 0.4 | V |



External antenna

External Antenna connector for group intercom:

M.FL connector.

Antenna cable should not go over

External
Antenna
connector



the shields, and if possible, not over components.

Antenna should be SMA based and placed on the top side of the product assembly and be compliant with FCC SAR rules as indicated in **FCC RF Radiation Exposure Statement**.

Antenna maximum gain + Cable loss: **1.0dBi**

Notices



Federal Communications Commission (FCC) Statement

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105 (b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. The antenna used for this transmitter must not transmit simultaneously with any other antenna or transmitter, except in accordance with FCC/IC multi-transmitter product procedures. Instructions concerning human exposure to radio frequency electromagnetic fields - to comply with FCC Section 1.310 for human exposure to radio frequency electromagnetic fields, a distance of at least 2 cm. between the equipment and all persons should be maintained during the operation of the equipment.

Industry Canada (IC) FVIN: V1.0.0

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IC RF Radiation Exposure Statement:

This equipment complies with the RSS-102 exemption from routine RF exposure evaluation for use in an uncontrolled environment.

European CE Notice



Your Cardo product (the “Product”) is in conformity with the following essential requirements of Council Directive 2014/53/EU: Articles 3.1a, 3.1.b and 3.2. The Product is manufactured in accordance with Annex II of the above directive.

For The complete EU Declaration of Conformity please refer to the [Cardo Systems website: www.cardosystems.com](http://www.cardosystems.com) www.cardopros.com

Operating temperature: The Product is designed to work in temperatures between -20° and 55° C (-4° and 131° F).

Charging temperature: Battery charging temperature limits: 0° - 40°C (32°-104°F)

AC/DC Adapters: When charging from a wall outlet, make sure that the plug-in AC/DC adapter meets the following criteria:

Input: 100-240 V, 50/60 Hz, 0.2 A maximum Output: 5 V DC, 1 A maximum.

Equipment must be supplied by an external specific limited power source, classified as PS1 according to IEC 62368-1.

Declaration of Conformity (DOC)

The Product is compliant with and adopts the Bluetooth® Specification 4.2 and has successfully passed all interoperability tests that are specified in the Bluetooth® specification. However, interoperability between the device and other Bluetooth®-enabled products is not guaranteed.

Copyright

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WARNING:

You are hereby notified that your complete and undivided attention is required when using a communication device (the “Product”) while riding. Failure to avoid potentially hazardous situations could result in accident resulting in serious injury or death.

Cardo advises you to take all necessary precautions and remain alert to the traffic, weather and all road conditions. Do not perform pairing, linking or any complex operations while riding. All publications are intended to address technical capabilities and should not be construed as encouraging the operation of Cardo’s Products in any manner that is unsafe or prohibited by law.

Exercise all due caution while using this Product and obey all applicable traffic laws. Always ride and use the Product in a safe manner and do not become distracted by the Product while riding. Do not operate the Product if it becomes unsafe to do so.

In some regions or states, the use of mobile communications systems is prohibited or restricted. Check all local, state and federal laws and regulations (the “Laws”) that apply to your region before using the Product and be mindful that compliance with all Laws is the user’s responsibility. Use the Product in motion only where and in the manner that such devices are permitted by applicable Law. No part of the body should come in contact with the antenna during operation of the equipment. Use Product only where safe, and avoid usage at gas stations, fuel depots or around explosives. Use with hearing aids and medical devices only after consulting a physician or specialist. Make sure to install and mount the Product in a stable manner.

Health Warnings:

Hearing Loss: Audio devices can cause hearing loss. Employ care and avoid exposure to excessive volume levels that may damage or impair hearing or lead to hearing loss. Permanent hearing loss may occur if Products are used at high volume for prolonged periods.

RF Signals: Most electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals emanating from your wireless equipment.

Pacemakers: The Health Industry Manufacturers Association recommends that a minimum separation of about six inches (or 16 cm) to be maintained between a mobile phone or wireless device and a pacemaker to avoid potential interference with the pacemaker. Be sure not to interfere with the functionality of personal medical devices.

Hearing Aids: Some devices may interfere with certain hearing aids. In the event of such interference, you should consult your hearing aid manufacturer to discuss alternatives.



Other Medical Devices: If you use any other personal medical device, consult the manufacturer of your device and/ or your physician to determine if it is adequately shielded from interference caused by external RF energy. Your physician may be able to assist you in obtaining this information.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 2cm between the transmitter's radiating structure(s) and the body of the user or nearby persons.

This module is intended for OEM integration. The OEM integrator is responsible for FCC compliance and compliance with all applicable regulations including those for modular transmitters 47 C.F.R. 15.212. The OEM product must comply with all applicable labelling requirements including those contained in 15 C.F.R. 15.19. The OEM is solely responsible for certification and testing and labelling of its own products. In addition to any independently required labels, the OEM shall also affix to the outside of a device into which the module is installed a label referring to the enclosed module. This exterior label should be prepared in a legible font and permanently affixed and using the wording "Contains Transmitter Module FCCID: **Q95ER24**"

The user must comply with all of the instructions provided by the Grantee, which indicate installation and/or operating conditions necessary for compliance.

The OEM is required to ensure that the end product integrates this module so as to maintain a minimum distance of 2cm between the equipment's radiating structure(s) and the body of the user or nearby persons. The OEM shall also advise its end user of this requirement as required by applicable rules.

The OEM shall require that the end user of its product be informed that the FCC radio frequency exposure guidelines for an uncontrolled environment can be satisfied. The OEM shall further inform its end user that any change or modifications to this module not expressly approved by the manufacturer will void the warranty and the users' authority to operate the equipment.

Notice de la Federal Communications Commission (FCC)

15.21

Vous devez prendre garde que les changements ou modifications apportés à cette unité, non expressément approuvés par la partie responsable de la conformité pourraient annuler le droit accordé à l'utilisateur d'exploiter cet équipement.

15.105(b)

Cet équipement a été testé et jugé conforme aux limites s'appliquant à un appareil numérique de Classe B, conformément à la Partie 15 des réglementations de la FCC. Ces limites ont été élaborées pour offrir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle.

Cet équipement génère, utilise et peut émettre de l'énergie de radio fréquence et, s'il n'est pas installé et utilisé conformément aux instructions du fabricant, peut provoquer des interférences dangereuses pour les communications radio. Toutefois, rien ne garantit l'absence d'interférences dans une installation particulière. Si cet équipement provoque des interférences nuisibles au niveau de la réception radio ou télévision, ce qui peut être déterminé par la mise hors puis sous tension de l'équipement, vous êtes invité à essayer de corriger les interférences en prenant les mesures suivantes:

- Réorientez ou déplacez l'antenne réceptrice
- Augmentez la distance qui sépare l'équipement et le récepteur
- Branchez l'équipement à une prise d'un circuit différent de celui auquel est branché le récepteur.
- Consultez le revendeur ou un technicien radio/télévision expérimenté pour obtenir de l'aide.

Son fonctionnement est soumis aux deux conditions suivantes :

- 1) cet appareil ne peut pas causer d'interférence et
- 2) cet appareil doit accepter toutes les interférences, y compris celles susceptibles de perturber le fonctionnement de l'appareil.

Enoncé FCC sur l'exposition aux radiations RF:

Cet équipement est conforme aux limites FCC d'exposition aux radiations, avancées ci-après, pour un environnement incontrôlé. Les utilisateurs suivront les instructions d'exploitation spécifiques pour répondre aux exigences de conformité sur l'exposition aux RF. Cet émetteur ne cohabitera pas ou ne s'exploitera pas en conjonction avec tout autre antenne ou émetteur. L'antenne utilisée pour ce transmetteur ne doit pas transmettre simultanément avec une autre antenne ou un autre émetteur, sauf en conformité avec les procédures de FCC pour produits multi-émetteurs.

| Industrie Canada (IC) FVIN: V1.0.0

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Déclaration d'exposition aux radiations: Cet équipement est conforme avec le RSS-102 exemption d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Une distance d'au moins 4 cm. entre l'équipement et toutes les personnes devraient être maintenues pendant le fonctionnement de l'équipement.

Notice européenne CE : L'écouteur Cardo (le «Produit») est conforme aux requêtes essentielles de la directive 2014/53/EU: Articles 3.1.a, 3.1.b et 3.2. Le produit est fabriqué en conformité avec l'Annexe II de la directive susmentionnée.

Pour la déclaration de conformité UE complète, veuillez vous référer au site Web de Cardo Systems www.cardosystems.com www.cardopros.com

Déclaration de conformité (DOC) : L'écouteur scala rider est conforme et adopte la norme Bluetooth® Specification 4.2 et a réussi tous les tests d'interopérabilité définies dans les spécifications Bluetooth®. Cependant une interopérabilité entre le périphérique et d'autres produits équipés de la fonctionnalité, Bluetooth® n'est pas garantie.

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Mise en garde : Cardo Systems Inc, («Cardo») vous informe qu'une attention complète et indivisible est nécessaire lorsque vous utilisez un dispositif de communication tout en conduisant une moto, un scooter, un cyclomoteur, un VTT, un quad, un vélo ou tout autre véhicule ou équipement («véhicule»). Afin d'éviter des situations potentiellement dangereuses qui pourraient provoquer un accident entraînant des blessures graves ou la mort.

Cardo vous recommande fortement de prendre toutes les précautions nécessaires et de rester attentifs à la circulation, la météo et toutes les conditions routières. Il est préférable d'arrêter votre véhicule sur la route, loin de la circulation, avant d'activer ou de désactiver le produit ou de passer ou de recevoir des appels. N'effectuez pas de pairage, de liaison, de lien ou toute autre opération similaire en conduisant un véhicule. Toutes les publications, publicités et autres matériaux publicitaires sont destinés à traiter les capacités techniques et ne devraient pas être interprétés comme encourageant l'exploitation des produits Cardo («Produit») d'une manière dangereuse ou interdite par la loi.

Appliquez toutes les règles de sécurité en utilisant ce produit et respectez toutes les lois applicables de la circulation. Faites toujours fonctionner le véhicule et le produit de façon sécuritaire. Ne vous laissez pas distraire par le produit pendant la conduite. Gardez à l'esprit toutes les conditions de conduite lors de l'utilisation du produit. Tout usage de vos mains en relation avec le produit doit toujours être effectué facilement, de manière appropriée et en toute sécurité. Gardez vos mains sur le guidon pendant que vous conduisez. Réduisez au minimum le temps que vos mains effectuent toute opération sur le produit et arrêtez-vous, en toute sécurité, loin de tout trafic, pour apporter des ajustements. Quand vous roulez, tenez toujours compte de la route, du trafic, du terrain et d'autres conditions pour maximiser la sécurité. N'utilisez pas le produit si son utilisation devient dangereuse. Dans certains États, l'utilisation de systèmes de communications mobiles est interdite ou restreinte. Vérifiez l'ensemble des lois et règlements qui s'appliquent à votre région avant d'utiliser le produit et vous devez être conscient que le respect de toutes les lois et règlements est de la responsabilité de l'utilisateur. Utilisez le produit en mouvement que de la manière prévue par la loi applicable. Le produit



ne doit pas être utilisé en contradiction avec les lois et règlements locaux, étatiques ou fédéraux. Veuillez vérifier les lois et règlements locaux, étatiques ou fédéraux avant d'utiliser votre produit Cardo.

Aucune partie du corps ne doit entrer en contact avec l'antenne pendant le fonctionnement de l'équipement. Utilisez le produit uniquement dans des lieux sûrs et évitez l'utilisation du produit dans les stations-service ou à proximité d'explosifs. Utilisez le produit avec un appareil auditif et un dispositif médical seulement après avoir consulté un médecin ou un spécialiste. Assurez-vous d'installer et de monter le produit de manière stable.

Les niveaux de volume doivent être maintenus à des niveaux raisonnables et non pas à leur maximum pour éviter toute atteinte du bruit ambiant.

Température de fonctionnement: Le produit est conçu pour fonctionner à des températures comprises entre -20 et 55 °C. **Adaptateurs AC / DC** Lors du chargement d'une prise murale, utilisez le chargeur fourni ou un autre adaptateur AC / DC certifié qui répond aux critères suivants:

Entrée: 100-240 V, 50/60 Hz, 0,2 A au maximum **Sortie:** 5 V DC, 1 A au maximum.

Avertissements pour la santé :

Perte d'audition : Les appareils audio peuvent causer une perte auditive. Utilisez-les prudemment et évitez l'exposition à des niveaux de volume qui peuvent endommager ou nuire à l'audition ou mener à la perte de l'audition. Une perte auditive permanente peut se produire si les produits sont utilisés à un volume élevé pendant de longues périodes.

Les signaux RF : La plupart des équipements électroniques sont protégés des signaux RF. Toutefois, certains équipements peuvent ne pas être protégés contre les signaux RF émanant de votre équipement sans fil.

Stimulateurs cardiaques (pacemakers) : L'Association des Fournisseurs de l'Industrie de la Santé recommande une distance minimale d'environ six pouces (ou 16 cm) maintenue entre un téléphone mobile ou un dispositif sans fil et un stimulateur cardiaque pour éviter toute interférence possible avec le stimulateur cardiaque. Veillez à ne pas interférer avec les fonctionnalités des appareils médicaux personnels.

Prothèses auditives : Certains appareils peuvent interférer avec certaines prothèses auditives. Dans le cas de telles interférences, vous devriez consulter le fabricant de votre appareil auditif pour discuter des alternatives.

Autres appareils médicaux : Si vous utilisez tout autre appareil médical personnel, consultez le fabricant de votre appareil et / ou votre médecin afin de déterminer s'il est correctement protégé contre les interférences provoquées par l'énergie RF externe. Votre médecin pourra vous aider à obtenir ces informations.