

Bolero Antenna

Quick Start Guide

A00



This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s).

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.

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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications made to this equipment not expressly approved by Riedel may void the FCC authorization to operate this equipment.

Radiofrequency radiation exposure Information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



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1 Preface

Thank you for choosing a Riedel product.

This PDF document provides detailed information about the Bolero Antenna, pin outs, mechanical and electrical data.

For further information, please refer to the [Riedel Website](#) or contact your local distributor or the Riedel headquarters in Wuppertal.

NOTICE

This manual, as well as the software and any examples contained herein are provided “as is” and are subject to change without notice. The content of this manual is for informational purpose only and should not be construed as a commitment by Riedel Communications GmbH & Co. KG & Co. KG or its suppliers. Riedel Communications GmbH & Co. KG & Co. KG gives no warranty of any kind with regard to this manual or the software, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Riedel Communications GmbH & Co. KG & Co. KG shall not be liable for any errors, inaccuracies or for incidental or consequential damages in connection with the furnishing, performance or use of this manual, the software or the examples herein. Riedel Communications GmbH & Co. KG & Co. KG reserves all patent, proprietary design, title and intellectual property rights contained herein, including, but not limited to, any images, text, photographs incorporated into the manual or software. All title and intellectual property rights in and to the content that is accessed through use of the products is the property of the respective owner and may be protected by applicable copyright or other intellectual property laws and treaties.

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1.1 Information


Symbols

The following tables are used to indicate hazards and provide cautionary information in relation to the handling and use of the equipment.

Danger	
	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	The highlighted line indicates the activity to prevent the danger.


Warning	
	Indicates a potentially hazardous situation which, if not avoided, could result in death or moderate injury.
	The highlighted line indicates the activity to prevent the danger.

Caution	
	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
	The highlighted line indicates the activity to prevent the danger.

	This text is for generally information . It indicates the activity for ease of work or for better understanding.
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Service


- All service has to be undertaken **ONLY** by qualified service personnel.
- There are no user serviceable parts inside the devices.
- Do not plug in, turn in or attempt to operate an obviously damaged device.
- Never attempt to modify the equipment components for any reason.

Caution	
	All adjustments have been done at the factory before the shipment of the devices. No maintenance is required and no user serviceable parts are inside the module.

Voltage

- The power cable should only be connected to a correctly grounded source.
- Do not use any adapters.
- Never bypass a ground contact.



Danger	
	To reduce the risk of electric shock do not remove cover or expose the products to rain or moisture.

Warning	
	Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.
	Apparatet må tilkoples jordat stikkontakt.
	Apparatet skall anslutas till jordat uttag.

Environment


- Never place the devices in an area of high dust particles or humidity.
- Never expose the device to any liquids.
- If the devices have been exposed to a cold environment and transferred to a warm environment, condensation may form inside the housing. Wait at least 2 hours before applying any power to the devices.

Declaration of Conformity

	The devices conforms to the EU guidelines EMV (EMC) 2014/30/EU NSR (LVD) 2014/35/EU RTTE (RED) 2014/53/EU as attested by the CE mark.
	FCC IDs: <ul style="list-style-type: none"> • YFJANT101019 (Bolero DECT Antenna / BL-ANT-1010-19) • YFJBPK100619 (Bolero Wireless Beltpack / BL-BPK-1006-19)
Industry Canada ICs:	<ul style="list-style-type: none"> • 8706A-ANT101019 (Bolero DECT Antenna / BL-ANT-1010-19) • 8706A-BPK100619 (Bolero Wireless Beltpack / BL-BPK-1006-19)
Standards:	<ul style="list-style-type: none"> • EN 300 328 V1.9.1 / ETSI EN 300 328 V2.0.20 • EN 300 330 V1.8.1 / ETSI EN 300 330V2.1.0 • EN 301 406 V2.2.1 • EN 301 489-1/-3/-6/-17, EN 55022, EN 55024 • IEC/EN 60950-1/-22 • ARIB STD-T66 • ARIB STD-T101

Disposal

Disposal of old Electrical & Electric Equipment (Applicable throughout the European Union and other European countries with separate collection programs)

	<p>This symbol, found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources. For more detailed information about the recycling of this product please contact your local city office.</p>
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1.2 About Bolero

Bolero Wireless Intercom

The Riedel Bolero Wireless Intercom system is a digital, easy to use full-duplex communications solution for broadcast, security, industrial and theater applications as well as for sports and cultural events.

Bolero takes a completely new approach to wireless communications, pushing it beyond the limits of existing wireless intercom solutions.

Riedel's Bolero Wireless Intercom solution utilizes the benefits of the Digital Enhanced Cordless Telecommunications (DECT) standard's base layer. This provides a license-free, cellular architecture with seamless hand-over between cells, allowing each Bolero Wireless Beltpack to continuously monitor and automatically select the best connection to the Antenna. The audio transmission takes place directly via the antennas. There is no need for additional devices.

Light and powerful custom lithium rechargeable battery packs are used for the Beltpack and the Antenna to provide UPS power. Battery packs are able to charge inside the Beltpack, the Antenna as well as separately in the charger.

What is Bolero?

- Digital Wireless Intercom System
- based on the DECT standard

Riedel Bolero - Key Features

- Wireless Partyline and point-to-point communications
- 4 Wireless Partylines
- Cellular architecture with seamless hand-over
- Up to 10 individually addressable Wireless Beltpacks can be connected at the same time at one Antenna
- Excellent audio quality via VoIP-over-DECT technology (license-free worldwide)
- Connection of antennas via existing Ethernet infrastructure (PoE)
- No interference with radio microphones, In Ear Monitoring (IEM) or other UHF systems

2 Bolero Antenna

The Bolero Antennas are connected together via Ethernet, allowing the use of existing standard structured cabling and providing a wide area between the Antennas. The Antenna is powered via Power-over-Ethernet (PoE), simplifying installations by eliminating local power supplies. Light and powerful custom lithium rechargeable battery packs are used in the Antenna to provide UPS power. The battery packs are charged during normal operation. The Bolero Cell Antenna has a range of approx. 330 feet (100 meters) under line-of-sight conditions or approx. 165 feet (50 meters) indoors.

2.1 Operating Elements

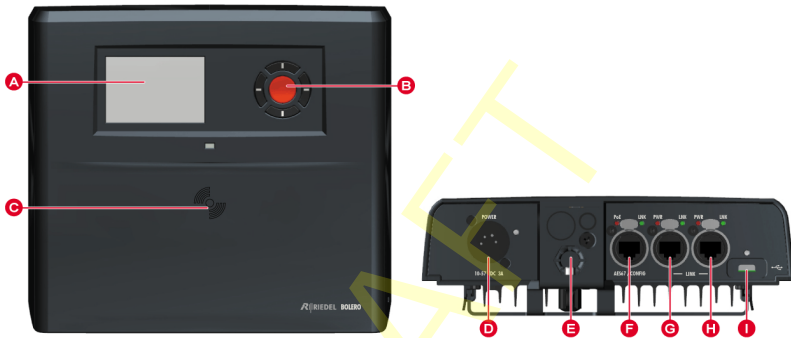


Figure 1: Antenna (front, bottom)

A	Display
B	Navigation buttons (cursor and menu button)
C	NFC contact point
D	Power supply connector (XLR-4)
E	Mounting element (TV spigot, 3/8 & 5/8 microphone stand mounting)
F	AES67 Network connector (RJ45)
G	ULLI** connector 1 (RJ45)
H	ULLI** connector 2 (RJ45)
I	USB connector (USB Type-C)

** (Ultra Low Latency Interface)

XLR-4 (male)

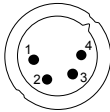


Figure 2: XLR-4 male

Pin	Power Supply
1	-PWR
2	Chassis
3	1W
4	+PWR (10...57 VDC / 3 A)

RJ45



Figure 3: RJ45

Pin	AE567/Config	ULLI (LINK 1+2)
1	+PWR	+PWR
2	+PWR	+PWR
3	-PWR	-PWR
4	+PWR	+PWR
5	+PWR	+PWR
6	-PWR	-PWR
7	-PWR	-PWR
8	-PWR	-PWR

USB Typ-C

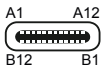


Abbildung 4: USB Type-C

Pin		Pin	
1	GND	7	Dn1
2	SSTxp1	8	SBU1
3	SSTXn1	9	VBUS
4	VBUS	10	SSRXn2
5	CC1	11	SSRXp2
6	Dp1	12	GND

The USB connector is used for the firmware update.

2.2 Status LEDs



Figure 5: Antenna (Status LED positions front)

Status-LED 1

off		not powered
green	on	Antenna ready (System ok)
	blinking	Locate mode
yellow	on	Antenna occupied (time slots are full)
	blinking	booting
red	on	low battery level
	blinking	Antenna failure

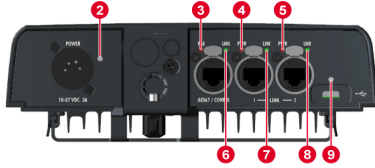


Figure 6: Antenna (Status LED positions bottom)

Power-LED ²

off	no XLR input power	
green	on	XLR input power ok

AES67-PoE-LED ³

off	no PoE input power	
green	on	PoE input power ok
red	on	PoE input power out of range

ULLI-PWR-LEDs ^{4 5}

off	no ULLI input power	
green	on	ULLI input power ok
red	on	ULLI input power out of range

AES67-LNK-LED ⁶

off	no AES67 connection present	
green	on	AES67 connection ok
red	on	AES67 connection failure

ULLI-LNK-LEDs ^{7 8}

off	no ULLI connection present	
green	on	ULLI connection ok
red	on	ULLI connection failure

USB-LED ⁹

off	no USB input power	
green	on	USB input power ok
red	on	USB input power out of range

2.3 Getting Started

- Attach the power supply to the Antenna.
- Open the Antenna-Menu by pressing and holding (>1 sec.) the **Menu** key.
- Create a new Net (**Create Net**) or join an existing Net (**Join Net**).

The Antenna is now ready for operation.

All members can listen and talk to the members registered to the Bolero-Net.

2.4 Technical Specifications

No of Beltpacks per Antenna	10	
RF Frequency Range	1.880 ... 1.930GHz (region dependant)	
RF Range	Indoor (structure dependent): -200 ... 400m Outdoor (Free line of sight): -300 ... 500m	
Programmable Transmission power	Yes	
Beltpack Registration	1 touch NFC & over the air	
Network Connection	AES67 IP	
Display Type	High contrast E-ink display	
Power Supply	PoE+ (802.3at, type 2, class 4, 15-30 W) or 8 ... 57 VDC	
Power Consumption	13 W	
Mounting points	Mic stand threaded socket 5/8" & 3/8" inside, spigot adapter with wing screw lock, Kensington lock hole, screw hole for a safety wire mounting	
Dimensions	Width	210 mm / 8.3"
	Height	190 mm / 7.5"
	Depth	66 mm / 2.6"
Weigth	1000g	
Environmental	IP53 sealing; dust + water spray at up to 60° from vertical	
Operating Environment	Temperature	-10° ... +55°C
	Humidity	0 % ... 90 % rel. (none condensing), Ta=40°C

3 Appendix

3.1 Service

If you have any further questions, we offer comprehensive customer service options for this product including:

- Telephone Service
- Email Service
- Skype Service
- Fax Service
- Configuration Support
- Trainings
- Repair

Your primary point of contact for any service issues is your local dealer.

In addition, Riedel Customer Service in Wuppertal, Germany is also available to assist you.

Telephone: +49 (0) 202 292 9400
(Monday - Friday, 8am – 5pm, Central European Time)

Fax: +49 (0) 202 292 9419

Skype: riedel.communications.service

Or use the contact form on our website:

www.riedel.net > Company > Riedel Communications > Contact > Wuppertal (Headquarters)

For repairs, please contact your local dealer. Your dealer will be able to help process your repair as fast as possible and/or arrange for the delivery of spare parts.

The address for repairs sent directly to Riedel Communications GmbH is:

Riedel Communications GmbH & Co. KG
- Repairs -
Uellendahler Str. 353
D-42109 Wuppertal
Germany

Please add a completed repair form to all your repairs.

The form can be found at the Riedel website:

www.riedel.net > Company > Services > Support > Contact

3.2 Notes

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Notes

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