RADION receiver ST

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Invented for life

▶ Dual internal antennas provide spatial and polar diversity for highly reliable RF signal reception

▶ Cover and wall tamper detection

▶ Multiple device and control panel supportive options as well as RF diagnostics ensure efficient and effective installation

▶ Supports RADION repeater to increase wireless system coverage and reliability

▶ External status LED

RADION wireless from Bosch provides the range, scalability and exceptional battery life required to ensure reliable performance and superior quality. Advanced diagnostics and multiple device and control panel supportive options make installation and maintenance simple and cost effective. With a complete line of peripherals, RADION provides the flexibility for virtually any application requirement.

System overview

The RADION receiver ST is a wireless receiver that connects RADION and DSRF wireless peripherals such as motion and specialty detectors, keyfobs, panic buttons, door/window contacts, repeaters and more to supported Bosch and other compatible control panels. Wiring connections are established through the terminal block connection.

The receiver supports RF communication information at 433.42 MHz carrier frequency and is equipped with tamper detection, and detects and reports radio frequency interferences.

The receiver can be easily accessed and configured for a compatible control panel using the address switch on the back of the receiver housing. The receiver

address switch provides a single-digit setting for the receiver's mode selection, allowing for ease of installation.

Functions

The receiver uses the RADION wireless protocol and supports:

- Streamline bus communication
- Tamper input processing
- RF interference (jamming) detection and reporting
- Signal strength and margin reporting
- Compatible control panels and device management

Address switch addressing
Use the address switch to easily assign a proper mode to the receiver during installation.

Easy installation
The sliding self-locking enclosure has an integrated bubble level and a custom gap-free, lift gate style terminal block to make installation easier, faster, and more reliable.

LED display
The LED provides status and troubleshooting information about the receiver and its connection.

RF interference (jamming) detection and reporting
The receiver detects and reports interference jamming when the ambient noise level is above jamming thresholds for a period of 30 out of 60 seconds. The Jamming threshold is set at 70 percent of the full scaled received RF signal strength.

Communications
RF packet information is received through the use of two spatial and polar diverse antennas. The receiver then transfers status change information to the control panel.

Wall and cover tamper switch
The receiver transmits a tamper signal when someone removes the device from it's base, or pulls it away from the wall.

Certifications and approvals

Compatibility

RADION devices	RFRP repeater RFBT bill trap RFDL-11 motion detector TriTech RRDW-RM recessed door/window contact RFDW-SM standard door/window contact RFGB glass break RFKF-FB keyfob RFKF-TB keyfob RFPB-SB panic RFPB-TB panic RFPR-12 motion detector PIR RFPR-C12 motion detector (curtain) PIR RFSM smoke detector RFUN universal transmitter RFKF-FBS/RFKF-TBS keyfob RFKF-FBS-A/RFKF-TBS-A keyfob
DSRF devices	RF835E RF940E RF3401E RF3405E RF280E RF110E RF3406E RF3332E RF3334E RF3503E
Control panels	Solution 6000/144 (CC600) Solution 64 (CC110) Solution 16Plus (CC100) Solution 16i (CC500) Solution Ultima 880 (CC488) Solution 880 (CC408)

Certifications

Region	Certificate
Europe	EN50130-5 Environmental Class II

Region		Certificate
		EN60950-1 EN61000-3-2 EN61000-3-3 EN50130-4

Region	Certification	
Australia	RCM	36 068 450 171 [RFRC-OPT, RFRC-STR]
Germany	VdS	H116003 AMAX RADION
Europe	CE	2014/30/EU EMC Directive (EMC); 2014/35/EU Low-Voltage Directive (LVD); 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment(RoHS) [OPT and STR]
	EN50131	EN-ST-000157 EN 50131-3: 2009; EN50131-5-3: 2005 + A1:2008, Grade 2; EN 50130-5 Environmental Class II; RADION receivers OP, OPT, and STR

Installation/configuration notes

Mounting considerations
You can mount the wireless receiver in residential, commercial or industrial locations in which a compatible control panel is already installed. The installation of the wireless receiver should be at a distance no greater than 300 m (1000 ft) from the control panel.

Wiring considerations
The wireless receiver connects to a control panel using the terminal block connections (R, B, Y). Use 22 AWG (0.6 mm) wires from the receiver to the control panel when connecting the wiring to the terminal block of the receiver.

Parts included

Quantity	Component
1	Wireless receiver
1	Hardware pack
1	Installation guide
1	Reference guide

Technical specifications

Mechanical

Dimensions:	139.7 mm x 209.6 mm x 31.8 mm 5.5 in x 8.25 in x 1.25 in
Wire length:	300 m (1000 ft)
Wire gauge:	0.65 mm (22 AWG) to 1.3 mm (16 AWG)

Power

Voltage (operating):	12 VDC
Maximum Current Draw:	100 mA
Frequency:	433.42 MHz

Environmental Considerations

Temperature (operating):	-10°C to +55°C (+14°F to +131°F)
Relative humidity:	Up to 93% non-condensing
Use:	Intended for indoor use.

Ordering information

RADION receiver ST
For use with compatible Streamline Bus control panels (streamline bus 433.42 MHz)
Order number **RFRC-STR**

RADION keyfob

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▶ Water and dust resistant

▶ Arm, disarm and panic functions

▶ Assigned by user for accurate reporting of open close signals

▶ LED indicator

▶ Programmable option buttons (only available on 4-button model)

RADION wireless from Bosch provides the range, scalability and exceptional battery life required to ensure reliable performance and superior quality. Advanced diagnostics and multiple device enrollment options make installation and maintenance simple and cost effective. With a complete line of peripherals, RADION provides the flexibility for virtually any application requirement.

System overview

RADION keyfob allows you to arm or disarm the security system, or send a panic alarm. Programmed with a unique code, each model works exclusively with your compatible security system. On the four-button version, two option buttons are user-defined to perform additional functions.

ℹ️ **Notice**
The RFKF-TB-A is UL Listed.

Functions

Panic alarm
The keyfob sends a panic code to your monitoring company if your security system is programmed to do so. Press both the lock and unlock buttons simultaneously for more than 600 milliseconds to send a panic alarm.

LED indicator
The LED flashes to indicate a signal was sent to your security system.

Programmable option buttons
The keyfob can be programmed to control additional devices in your protected area. Two option buttons are available.

Water and dust resistant
The housing is designed to resist dust and be resistant to water.

Supervision
RADION panic buttons send supervision check-in transmissions to RADION receivers. When connected to a compatible Bosch control panel featuring user definable supervision for panic buttons, the control

panel is alerted if the receiver has not received a check-in transmission from an assigned keyfob within the supervision interval.

> ℹ️ **Notice**
> The control panel must be configured to supervise these devices in order to detect the removal of the device from the monitored area.

Certifications and approvals

Region	Certificate
US	UL 1023 – Household Burglar Alarm System Units ANSI/SIA CP-01-2010. Two-button (RFKF-TB-A) only.
Europe	EN 50131-1

Region	Certification	
USA	FCC	Part 15 Security/Remote Control Transmitter 433.42 MHZ [433.42 MHZ]
Canada	IC	1249A-RWSSFT [-A model numbers]
Brazil	ANATEL	4349-13-1855 [-RFKF-FB-A]
	ANATEL	4278-13-1855 [RFPB-SB-A; RFPB-TB-A; RFKF-TB-A]

Installation/configuration notes

Recommended batteries
The following battery types are recommended for correct operation of your keyfob: Duracell DL2032, Varta CR2032, or Panasonic CR2032.

Parts included

Quantity	Component
1	Keyfob
1	Lithium battery (CR2032) coin-cell, 3 VDC
1	Literature

Technical specifications

Properties

Dimensions	63.7 mm x 35.5 mm x 13.0 mm (2.51 in x 1.40 in x 0.51 in)

Power

Power/voltage	One CR2032 Lithium battery, 3 VDC
Battery life	Up to 5 years

Environmental considerations

Temperature	Functional range: -10˚C to +49˚C (+14˚F to +120˚F) UL only: 0˚C to +49˚C (+32˚F to +120˚F)
	EN 50130-5 Class II only: -10˚C to 40˚C (+14˚F to +104˚F)
Environment	Complies with EN50130-5 Class II
Relative humidity	Up to 93% non-condensing
Frequency	433.42 MHz
Use	Intended for indoor use.

RADION product suite

Receivers	B810 (compatible with RFKF-FB-A, and RFKF-TB-A only) RFRC-OPT (compatible with RFKF-FB and RFKF-TB only)

Trademarks
All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

RFKF-FB (433.42 MHz)
Wireless, four-button key fob. For use in Europe, Africa, and Australia.
Order number **RFKF-FB**

RFKF-FB-A (433.42 MHz)
Wireless, four-button key fob. For use in North and South America.
Order number **RFKF-FB-A**

RFKF-FB-CHI (433.42 MHz)
Wireless, four-button key fob. For use in China only.
Order number **RFKF-FB-CHI**

RFKF-TB (433.42 MHz)
Wireless, two-button key fob. For use in Europe, Africa, and Australia.
Order number **RFKF-TB**

RFKF-TB-A (433.42 MHz)
Wireless, two-button key fob. For use in North and South America.
Order number **RFKF-TB-A**

RFKF-TB-CHI (433.42 MHz)
Wireless, two-button key fob. For use in China only.
Order number **RFKF-TB-CHI**