



RFSF-1B

EN Wireless flood detector
RS Prekidač nivoa (Level switch)



iNELS
RF Control

02-52/2015 Rev.3

Characteristics / Karakteristike

- Monitors areas (e.g. bathrooms, basements, shafts or tanks) to provide flood warning.
- Upon detecting water, the flood detector immediately sends a signal to the switched unit, which further switches on a pump, GSM gate (RFGSM-220M) or closes a pipe valve.
- Option of connecting an external probe FP-1 (not included in supply) - max. wire length 30 m.
- The programming button on the detector is used to:
 - a) setting the function with switching unit.
 - b) ascertaining battery status.
 - c) ascertaining signal quality between the unit and detector.
- Battery power supply (3V/CR2477 - included in the supply) with battery life of around 1 year based on frequency of use.
- The detector can be placed anywhere thanks to battery power.
- Range up to 160 m (in open space); if the signal is insufficient between the controller and unit, use the signal repeater RFRP-20 or protocol component RFIO² that support this feature.
- Communication frequency with bidirectional protocol iNELS RF Control.

- Nadgleda područja (npr. kupatila, podrum, šahtove ili rezervoare) kako bi pružio upozorenje na poplavu.
- Detektor poplave, nakon otkrivanja vode, odmah šalje komandu preklopnom elementu, koji dalje uključuje pumpu, GSM mrežni prolaz (RFGSM-220M) ili zatvara ventil cevovoda.
- Mogućnost povezivanja spoljne sonde FP-1 (nije uključena u isporuku) - maksimalna dužina kabla do 30 m.
- Dugme za programiranje na detektoru služi za
 - a) podešavanje funkcije sa preklopnom jedinicom.
 - b) utvrđivanje statusa baterije
 - c) utvrđivanje kvaliteta signala između jedinice i detektora
- Napajanje iz baterije (1x 3 V CR 2477 baterija - uključena u nabavku) sa trajanjem baterije do jedne godine na osnovu učestalosti upotrebe
- Zahvaljujući napajanju baterijom, lokacija detektora je proizvoljna.
- Domet do 160 m (na otvorenom prostoru); ako je signal između jedinice i kontrolera slab koristi se pojačivač signala RFRP-20 ili komponenta protokola RFIO², koji podržavaju ovu funkciju.
- Dvosmerna komunikacija sa protokolom iNELS RF Control.

Control options / Kontrolne opcije

- the wireless flood detector RFSF-1B can control switching units e.g.: RFSAI-11B/61B/62B, RFSM-61M/66M, RFSAI-61B, RFSC-11/61, RFUS-11/61

- option of control via RFRP-20

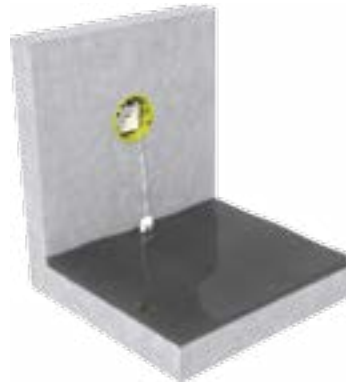
- bežični detektor poplave RFSF-1B može da kontroliše preklopne elemente, na primer: RFSAI-11B / 61B / 62B, RFSM-61M / 66M, RFSAI-61B, RFSC-11/61, RFUS-11/61
- mogućnost upravljanja putem RFRP-20

Assembly / Montaža

for surface mounting
površinska montaža



mounting in an installation box
ugradnja u kutiju za ugradnju

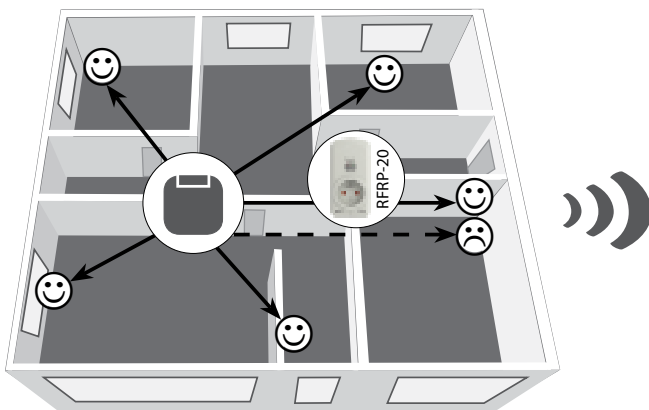


freely on surface
slobodno na površini



Radio frequency signal penetration through various construction materials /

Prenos radio frekvencijskih signala preko različitih građevinskih materijala



60 - 90 %	80 - 95 %	20 - 60 %	0 - 10 %	80 - 90 %
brickwalls	wooden structures with plaster boards	reinforced concrete	metal partitions	common glass
zid od cigle	drvena konstrukcija sa gipsanim pločama	armirani beton	metalne pregrade	staklo



RFSF-1B

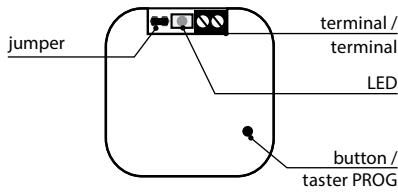
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Indication / Indikacija

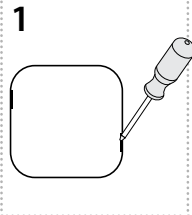


- LED STATUS - indication of the device status.
- Terminal INPUT - for controlling the level probe.
- Communication with programmed unit is performed by pressing PROG for less than 1s.
- Jumper Function - function setting:
 - inserted jumper Function - immediate reaction to flood and to drainage.
 - non-inserted jumper Function - immediate reaction to flooding, during drainage the switching actuator remains closed until you press the Prog RFSF-1B.

- LED STATUS - indikacija stanja uređaja.
- Ulazni blok INPUT - za povezivanje sonde za nivo.
- Komunikacija sa programiranim elementom vrši se pritiskom na taster PROG <1s.
- Funkcija kratkospojnika - izbor funkcije:
 - postavljeni jumper funkcija - trenutna reakcija na poplavu i ispiranje.
 - ne postavljeni jumper funkcija - trenutni odgovor na poplavu, tokom poplave programirani preklopni element ostaje zatvoren sve dok se ne pritisne dugme Prog na RFSF-1B.

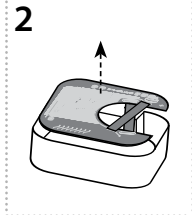
Programming with RF switching actuators / Programiranje sa RF preklopnim elementom

1



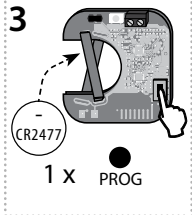
Using a screwdriver, carefully remove the rear cover.
Pažljivo skinite zadnji poklopac odvijačem.

2



Remove the device from the box.
Izvadite uređaj iz kutije.

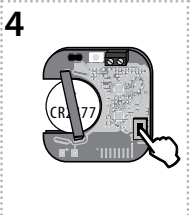
3



While pressing Prog on the RFSF-1B, insert the battery. Observe the polarity. This activates the programming mode. The red LED flashes in an interval of 2 flashes per second. After inserting the battery, release the button.

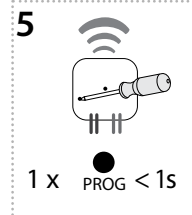
Postavite bateriju dok pritisate taster Prog na RFSF-1B. Obratite pažnju na polaritet. Ovo aktivira režim programiranja. Crvena LED lampica otučava u intervalu od 2 blica za 1 s. Nakon postavljanja baterije, otpustite taster.

4



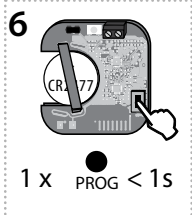
Press the programming button and hold down until the LED flashes once per second. Then release the button.
Pritisnite taster za programiranje i držite ga pritisnutim dok LED ne počne treptati jednom u sekundi. Zatim otpustite taster.

5




Pressing Prog < 1s on the assigned switching unit (must be connected to the power supply) sends a signal. The RFSF-1B indicates signal receipt by a red LED that lights up for 1s.
Pritiskom na taster Prog <1s na dodeljenom preklopnom elementu (mora biti povezan na mrežni napon) šalje se signal. Prijem signala označava RFSF-1B crvenom LED lampicom koja svetli 1 s.

6



Press of programming button on actuator RFSF-1B shorter than 1 second will finish programming mode.
Da biste prekinuli programiranje, pritisnite taster Prog <1s na RFSF-1B.

7



After finished programming, insert the device into the box and snap on the rear cover.
Kada završite sa programiranjem, stavite uređaj u kutiju i postavite poklopac na mesto.

Note: if necessary you can program another switching unit - see Programming 1-5. By programming a new switching unit, you erase the previous settings.

Napomena: ako je potrebno, možete programirati drugi preklopni element, pogledajte Programiranje 1-5. Programiranje novog preklopnog elementa briše prethodnu postavku.



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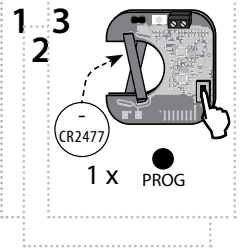


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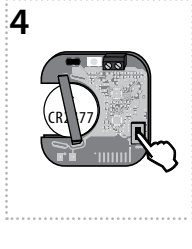
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Programming with the RF switching unit with communication via RFRP-20 / Programiranje sa RF preklopnim elementom sa komunikacijom preko RFRP-20



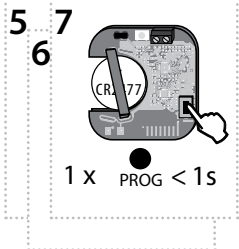
1 3
2
1 X PROG

Steps 1-3 are the same as Programming the RF switching unit (see above).
Koraci 1-3 su isti kao i programiranje sa RF preklopnim elementom (vidi gore).



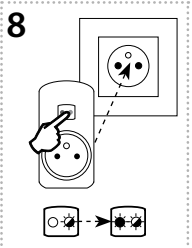
4

Press the programming button and hold down until the LED flashes 3x per second. Then release the button.
Pritisnite taster za programiranje i držite ga pritisnutim dok LED lampica ne zatrepće 3 puta u sekundi. Zatim otpustite taster.



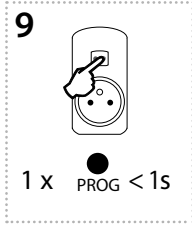
5 7
6
1 X PROG < 1s

Steps 5-7 are the same as Programming the RF switching unit (see above).
Koraci 5-7 su isti kao programiranje sa RF preklopnim elementom (vidi gore).



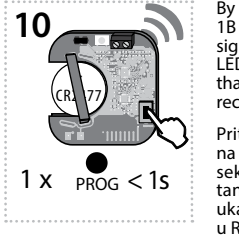
8

When inserting the RFRP-20 into an electrical socket (upon power-up), the programming button must be pressed. The green LED flashes. Then when the red LED button illuminates, release the button.
Prilikom umetanja RFRP-20 u el. utičnica (napajanje) mora biti pritisnut taster za programiranje. Zelena LED lampica trepće. Nakon što se upali crvena LED lampica, otpustite dugme.



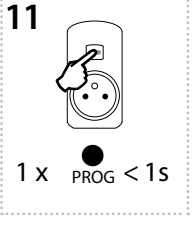
9
1 X PROG < 1s

By one short press of the programming button on the RFRP-20, you move to the position for input into the additional learning mode. The red LED flashes – after 5s the RFRP-20 enters the additional learning mode. The LED stops flashing.
Kratkim pritiskom na taster za programiranje na RFRP-20 pomerićete se na mesto za ulazak u režim podučavanja. Crvena LED lampica trepće - nakon 5 s RFRP-20 prelazi u režim podučavanja. LED prestaje da treperi.



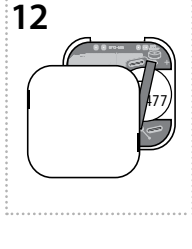
10
1 X PROG < 1s

By pressing Prog on the RFSF-1B for less than a second, the signal is sent. A flashing green LED on the RFRP-20 indicates that the RFSF-1B has been recorded in the memory.
Pritiskom na taster Prog na RFSF-1B kraćem od 1 sekunde šalje se signal. Treptanje zelene LED na RFRP-20 ukazuje da je RFSF-1B upisan u RFRP-20 memoriju.



11
1 X PROG < 1s

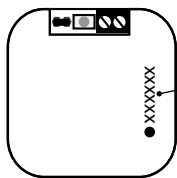
End learning mode by a short press of the programming button on the RFRP-20. By doing so, the programmed RFSF-1B address is stored in the memory. The red LED will flash for 1 second, then the green LED will remain illuminated.
Da biste izašli iz režima podučavanja, kratko pritisnite dugme za programiranje na RFRP-20. Ovo pohranjuje programiranu RFSF-1B adresu u memoriju. Crveni LED trepće 1 sekundu, a zatim zeleni LED trajno svetli.



12

After finished programming, insert the device into the box and snap on the rear cover.
Kada završite sa programiranjem, stavite uređaj u kutiju i pritisnite poklopac na mesto.

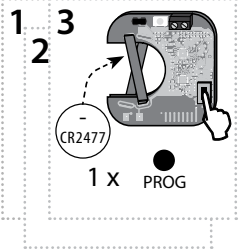
Programming with the RF control unit RF Touch / Programiranje sa RF sistemskim elementom RF Touch



address / adresa

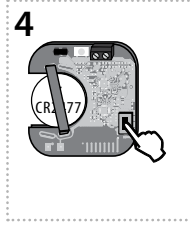
An address listed on the front of the actuator is used for programming and controlling a temperature actuator by RF Touch.

Adresa navedena na prednjoj strani elementa koristi se za programiranje i kontrolu RF elemenata od strane sistemskih elemenata.



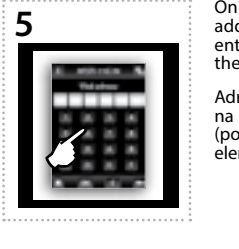
1 3
2
1 X PROG

Steps 1-3 are the same as Programming the RF switching unit (see above).
Koraci 1-3 su isti kao i programiranje sa RF preklopnim elementom (vidi gore).



4

Press of programming button on actuator RFSF-1B shorter than 1 second will finish programming mode.
Pritiskom na taster Prog < 1s na RFSF-1B završava se režim programiranja.



5

On the RF system unit, the address of the RFSF-1B is entered (see the manual of the RF system unit).
Adresa RFSF-1B se unosi na element RF sistema (pogledajte priručnik za element RF sistema).



RFSF-1B

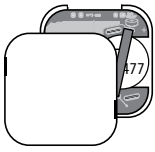
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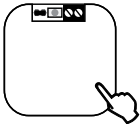
6



After finished programming, insert the device into the box and snap on the rear cover.

Kada završite sa programiranjem, stavite uređaj u kutiju i pritisnite poklopac na mesto.

Function / Funkcije



After pressing the Prog button < 1s, the RFSF-1B communicates with the programmed unit and then indicates the battery status and successful connection to the programmed unit.

Indicating the battery status
After terminating communication, the red LED flashes according to the battery status:
- 1x - battery OK.
- 2x - weak battery.

Indication of successful connection
If an RF switching unit is programmed to the RFSF-1B, 2 seconds after battery indication, successful connection is indicated.
- LED flashes 1x - connection OK.
- LED flashes 2x - cannot connect to programmed switching unit.
Note: Connection with RF Touch RFSF-1B is not indicated.

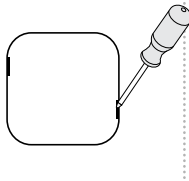
Nakon pritiska tastera Prog <1s, RFSF-1B komunicira sa programiranim elementom, a zatim ukazuje na status baterije i uspeh veze sa programiranim elementom.

Prikaz stanja baterije
Kada je komunikacija završena, LED trepće u skladu sa statusom baterije:
- 1x - baterija u redu.
- 2x - prazna baterija.

Naznaka uspeha veze
Ako je RF signalni element programiran za RFSF-1B, uspeh veze signalizira se nakon 2 s od indikacije baterije.
- LED trepće jednom - veza je u redu.
- LED trepće dva puta - ne može se povezati sa programiranim preklopnim elementom.
Napomena: Veza sa RF Touch ne označava RFSF-1B.

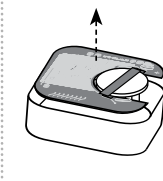
Replacement of a battery / Zamenja baterije

1



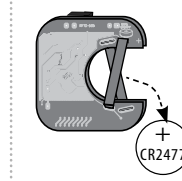
Using a screwdriver, carefully remove the rear cover.
Pažljivo izvucite zadnji poklopac odvijačem.

2



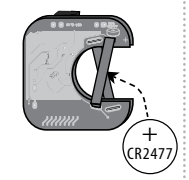
Remove the device from the box.
Izvucite uređaj iz kutije.

3



Remove the old battery from the battery holder.
Izvucite staru bateriju iz držača baterije.

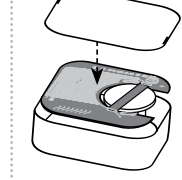
4



Slide a new battery CR2477 into the battery holder. Observe the polarity.
After inserting the battery, the number of LED flashes indicates:
- flashes 1x per second - programmed with switching unit.
- flashes 2x per second - programmed with RF Touch.
- flashes 3x per second - programmed with switching unit via RFRP-20.

Postavite novu bateriju CR2477 u držač baterije. Obratite pažnju na polaritet.
Nakon umetanja baterije, broj LED bliceva pokazuje:
- treperi 1 puta u sekundi - programirano sa preklopnim elementom.
- treperi 2 puta u sekundi - programirano sa RF Touch.
- treperi 3 puta u sekundi - programirano sa preklopnim elementom preko RFRP-20.

5



Insert the device into the box. Snap on the rear cover.
Stavite uređaj u kutiju. Zakačite zadnju masku.

Safe handling / Bezbedno rukovanje uređajem



When handling a device unboxed it is important to avoid contact with liquids. Never place the device on the conductive pads or objects, avoid unnecessary contact with the components of the device.

Kada rukujete uređajem bez kutije, važno je izbegavati kontakt sa tečnostima. Nikada ne postavljajte uređaj na provodne jastučice ili predmete, izbegavajte nepotreban kontakt sa komponentama uređaja.

Additional information / Dodatne informacije

Error conditions / Uslovi greške

Malfuction / Kvar	Probable cause / Verovatni uzrok	Removal / Uklanjanje
RFSF-1B does not control assigned units. / RFSF-1B ne kontrolira dodeljene jedinice.	Weak or drained battery. / Slaba ili ispražnjena baterija.	Press the button on the product, perform communications test with battery measurement, if the LED indicates a drained battery or does not indicate anything, change the battery. / Pritiskom na taster na proizvodu izvršite test komunikacije sa merenjem baterije. Ako LED lampica pokazuje da je baterija skoro prazna, zamenite baterije.
The RFSF-1B does not control units - LED reports unsuccessful communication. / RFSF-1B ne kontrolise jedinice - LED izveštava o neuspešnoj komunikaciji. /	Problem with range of radio frequency signal. / Problem sa dometom radio frekvencijskog signala.	The actuator was probably installed at the edge of problem-free range or surrounding conditions changed, ex. installation of a WiFi network in close proximity, barrier in front of the unit, etc. Removing fault by better installation of product. / Element je verovatno instaliran na ograničenju dometa bez problema ili su se okolni uslovi promenili, npr. Instalacija WiFi mreže u blizini, prepreka ispred jedinice itd. Pogodnija instalacija proizvoda.
The battery in the RFSF-1B must be changed often, range test is OK. / Baterija u RFSF-1B mora se često menjati, test dometa je u redu.	Water has gotten into the product or it has been flooded for a lengthy period. / Voda je ušla u proizvod ili je dugo bila poplavljena.	The product can become irreversibly damaged. / Proizvod može biti nepopravljivo oštećen.

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Accessories / Dodatni pribor**Measuring probe / Merne sonde**

Flood sensor FP-1

- the flood sensor is designed to detect flooding, especially in residential areas, over flowing bathes, disorders of washing machines, dishwashers, boilers, etc.

SHR-1-M: brass sensor

SHR-1-N: stainless steel sensor

- sensor to control flooding

Level probe SHR-2

- detection sensor is electrode, which in connection with switchable device is used for level detection for example in wells, tanks...

Sonda za poplavu FP-1

- sonda za poplavu je dizajnirana za otkrivanje poplava, posebno u dnevnim boravcima, prelivnim kupkama, kvarovima na mašini za pranje veša, mašini za pranje sudova, kotlu itd.

Sonda za nivo SHR-1-M - mesingana sonda

Sonda za nivo SHR-1-N - sonda od nerđajućeg čelika

- sonde dizajnirane za nadgledanje poplava

Sonda nivoa SHR-2

- sonda za otkrivanje je elektroda koja se, zajedno sa odgovarajućim uređajem za procenu, koristi za otkrivanje nivoa, npr. U bunarima, bušotinama, rezervoarima ...

Technical parameters / Tehnički paramteri

Supply voltage:	Napon napajanja:	1 x 3V batteries / baterije CR 2477
Battery life:	Trajanje baterije:	1 year / godina
Indication of transmission/function:	Indikacija prenosa/funkcija:	red / crvena LED
Reset after flooding:	RESET – nakon poplave	JUMPER - manual/automatic / Ručno/Automatsko
Programming:	Programiranje:	with Prog button/based batteries / sa programskim tasterom/baterijama
Measuring input:	Merni ulaz:	terminal / terminal 0.5-1mm ²
Voltage at measuring input:	Ulaz za merenje napona:	3V
Resistance at measuring input for flood detection:	Ulaz merenja otpora za detekciju poplava:	≤ 20 kΩ
Resistance at measuring input for run-off detection:	Ulaz merenja otpora za detekciju ispiranja:	≥ 40 kΩ
Probe wire length:	Dužina kabla za sondu:	max. 30 m
Frequency:	Frekvencija:	866 MHz, 868 MHz, 916 MHz
Signal transmission method:	Metoda prenosa signala:	bi-directional addressed message / dvosmerna adresirana poruka
Range in the open:	Domet na otvorenom prostoru:	up to / do 160 m
Other data	Ostali podaci	
Working temperature:	Radna temperatura:	-10...+50 °C
Working position:	Pozicija rada:	any / bilo gde
Fixing:	Montaža:	glue, screws / lepak, zavrtanj
Degree of protection:	Stepen zaštite:	IP30
Pollution degree:	Stepen zagađenja:	2
Dimensions:	Dimenzije:	49 x 49 x 13 mm
Weight:	Težina:	45 g
Relating standards:	Standardi:	EN 60730-1, EN 300 220, EN 301 489 directive R&TTE Directive, Order. No 426/2000 Coll. (Directive 1999/EC)

Attention:

When you install iNELS RF Control system, you have to keep minimal distance 1 cm between each units. Between the individual commands must be an interval of at least 1s.

Upozorenje:

Kada instalirate iNELS RF Control sistem, mora se poštovati minimalno rastojanje od 1cm između pojedinih elemenata.

Između pojedinačnih komandi potrebno je da prođe interval od 1s.

Warning

Instruction manual is designated for mounting and also for user of the device. It is always a part of its packing. Installation and connection can be carried out only by a person with adequate professional qualification upon understanding this instruction manual and functions of the device, and while observing all valid regulations. Trouble-free function of the device also depends on transportation, storing and handling. In case you notice any sign of damage, deformation, malfunction or missing part, do not install this device and return it to its seller. It is necessary to treat this product and its parts as electronic waste after its lifetime is terminated. Before starting installation, make sure that all wires, connected parts or terminals are de-energized. While mounting and servicing observe safety regulations, norms, directives and professional, and export regulations for working with electrical devices. Do not touch parts of the device that are energized – life threat. Due to transmissivity of RF signal, observe correct location of RF components in a building where the installation is taking place. RF Control is designated only for mounting in interiors. Devices are not designated for installation into exteriors and humid spaces. They must not be installed into metal switchboards and into plastic switchboards with metal door – transmissivity of RF signal is then impossible. RF Control is not recommended for pulleys etc. – radiofrequency signal can be shielded by an obstruction, interfered, battery of the transceiver can get flat etc. and thus disable remote control.

Upozorenje

Uputstva za upotrebu su namenjena za ugradnju kao i za korisnike proizvoda. Uputstva se uvek dobijaju uz proizvod. Instalaciju i povezivanje smeju da obavljaju samo kvalifikovane osobe, u skladu sa svim važećim propisima, koja je detaljno upoznata sa ovim uputstvom i funkcijama komponenti. Funkcija elemenata takođe zavisi od prethodnog načina transporta, skladištenja i rukovanja. Ako u bilo kom slučaju primetite neke znakove oštećenja, deformacije, kvara ili ako neki deo nedostaje, nemojte ugrađivati uređaj, prijavite to prodavcu. Nakon što komponenti istekle životni vek, potrebno je tretirati je kao elektronski otpad. Pre započinjanja instalacije potrebno je prvo se uveriti da su žice, povezani delovi ili terminali bez napona. Tokom instalacije i održavanja moraju se poštovati sigurnosni propisi, standardi, direktive i profesionalne odredbe za rad sa električnom opremom. Ne dodirujte elemente pod naponom golim rukama, zbog mogućnosti stujnog udara i rizika od smrti. Zbog propustljivosti RF signala, obratiti pažnju na pravilno postavljanje RF elemenata u zgradi gde će se izvoditi ugradnja. RF kontrola je namenjena samo za unutrašnju ugradnju. Elementi nisu namenjeni za spoljašnju ugradnju kao i za ugradnju u vlažne prostorije, ne smeju se ugraditi u metalne ormance kao ni u plastične ormance sa metalnim vratima iz razloga što će to sprečiti prenos radio frekvencijskog signala. RF kontrola se ne preporučuje za kontrolu uređaja koji pružaju životne funkcije kao i za kontrolu opasne opreme kao što su pumpe, električni grejači bez termostata, liftova, dizalica itd. iz razloga što prenos radio frekvencije može biti preklonjen, ometen, baterija predajnika se može isprazniti i na taj način daljnji upravljač može biti onemogućen.