NOTICE D'UTILISATION
USER MANUAL

Spy RF C

06412B

JRI Maxant, société par actions simplifiée au capital de 4 000 000 €
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TABLE OF CONTENTS

I. INTRODUCTION

Congratulations, you own a SPY RF C! This device is equipped with 1 or 2 inputs (analog or logical…). It enables you to record physical parameters (depending on the model) and to transfer wireless the recorded data by radio frequency to a PC.

a) Equipment

- 1 SPY RF C
- 1 wall mounting bracket
- 1 adhesive plaster
- 1 connector protection
- 1 user manual

b) Symbols

	*RECYCLING : do not throw in a rubbish dump or in a domestic waste container. Comply to the regulation to throw away the device.*
CE	*CE MARKING : this equipment is certified to comply with the European regulation for the electric security, inflammability, disturbing radiation emission and immunity to surrounding electric disturbances.*

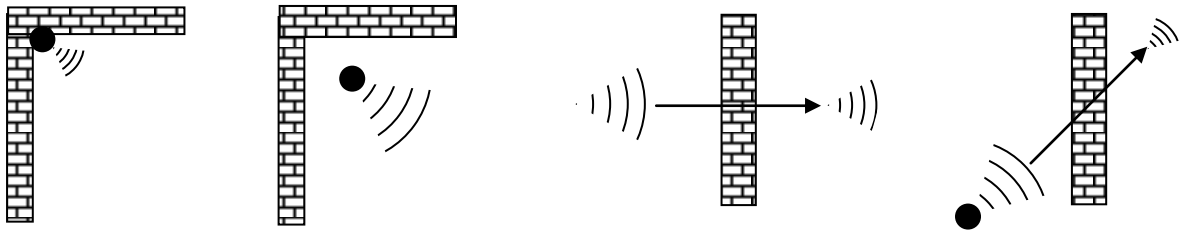
II. INSTALLATION RECOMMENDATIONS

The Spy RF is a recorder of physical parameters able to communicate wirelessly with the operating software SIRIUS.
The wireless communication is based on radio frequency. As we are daily in contact with it (radio, TV…) it is easy to think that it always works. This is true if basic rules on recorders positioning are respected because wireless communication is subject to perturbations.

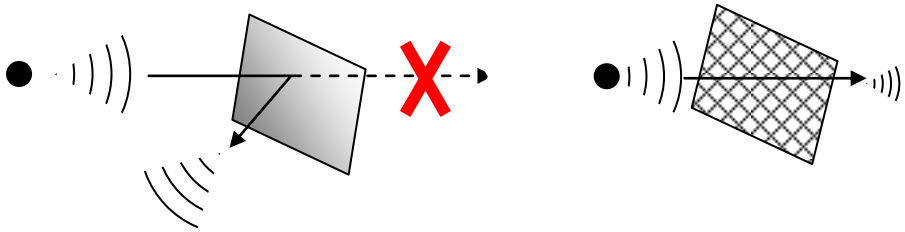
a) Perturbations sources

Presence of obstacles in the way of the waves between the Spy RF ModeM and the Spy Rf (wall, ceiling, person, furniture…) or close to the antenna.

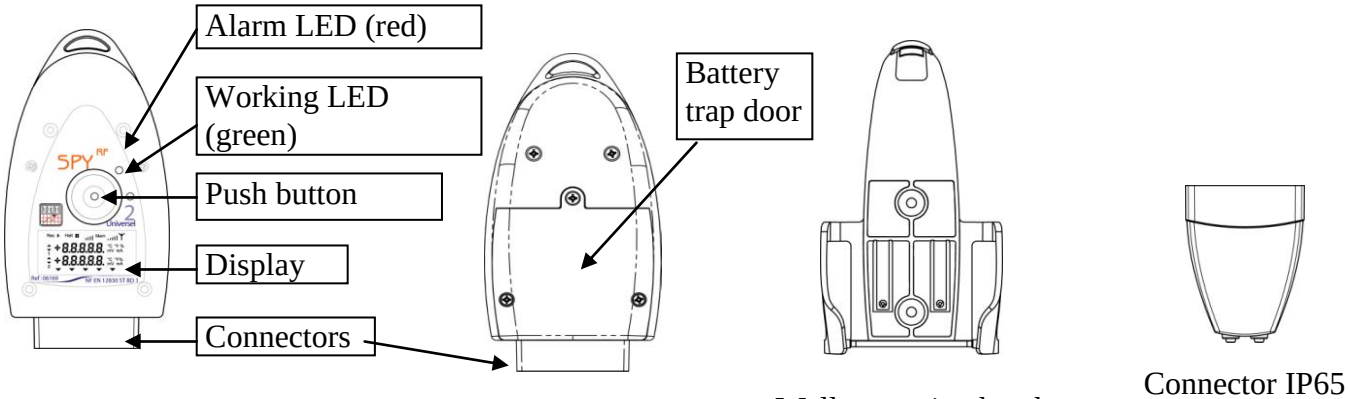
Obstacles thickness in the way of the waves. The absorption is more important in diagonal as perpendicularly



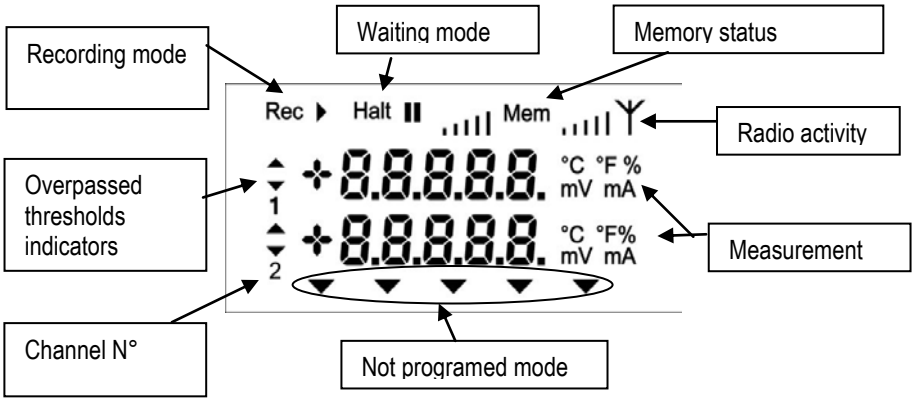
Waves cannot pass through full metallic walls. On the other hand, a perforated wall allows the waves passing with attenuation



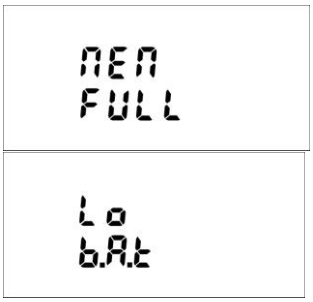
III. PRESENTATION



b) Display



c) Complementary information

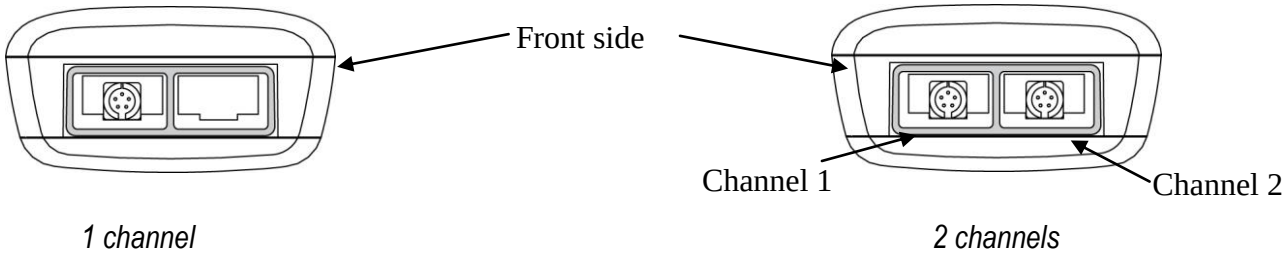


Full memory. You must transfer the data into your PC.

Low battery. You must change the battery.

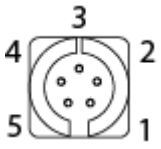
d) Connectors

The SPY RF C is equipped with rapid connectors which make the installation of different type of probes very easily. The probes can otherwise be disconnected from the recorder to be changed or to change the recorder itself.

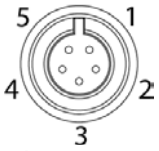


1 channel *2 channels*

e) Locating connectors



Male connector on SPY RF U

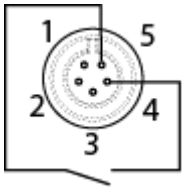


Female connector on the probe cable (side view)

1	N/C
2	Voltage output
3	Resistor, voltage or power measuring analogic input
4	Frequency or counting logical input
5	Start input
6	Mass

f) Cables

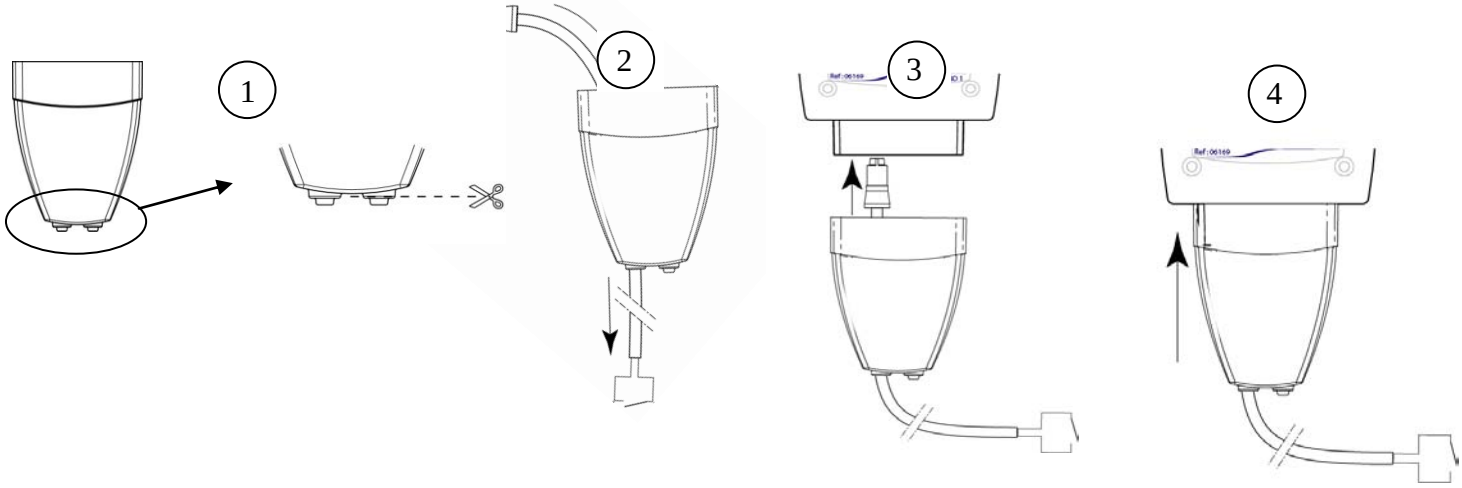
The connector figure shows the backward view.



Only the logical inputs can be wired by the user.

Frequency or counting, logical input

g) Connecting probes



IV. INSTALLATION RECOMMENDATIONS

a) Installation recommendations

Place the devices at ~2m high and around 30 to 40cm from the ceiling to avoid obstacles and moving persons.

If possible, place the Spy RF in central position regarding the Spy RF recorders.

Try to place them preferably at sight of each other .

On the wall, it is preferable to them aside by using the special bracket (ref 08512) of the catalog.

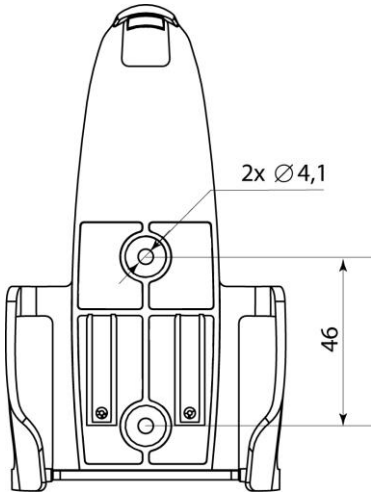
Place the antenna above the top the monitored unit (fridge, incubator, oven, cold rooms…).

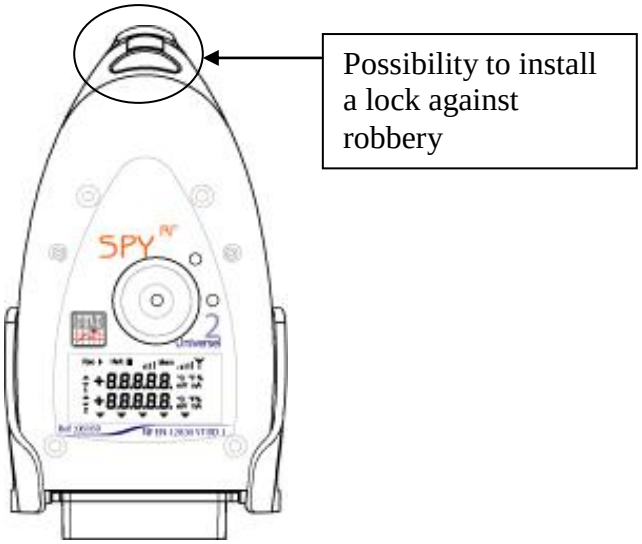
Never place the Spy RF horizontally.

If some difficulties persist, it is possible to use Spy Rf RelaY (repeaters) or to connect another Spy RF ModeM to the Ethernet network (LAN).

b) Installation of wall-mounting bracket

The bracket can be fixed thanks to its adhesive plaster or it can be screwed.
Screwing map



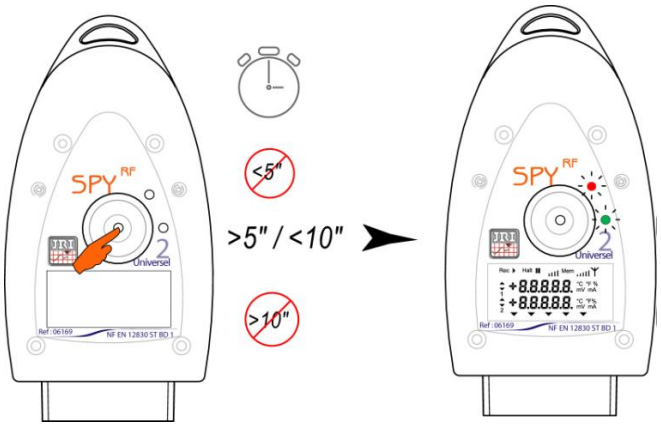


V. USE

a) Stop

When you receive it, your SPY RF is stopped. Only the time clock is active. It can neither emit nor receive anything.

b) Start



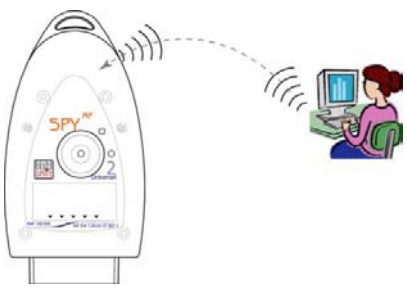
To start your SPY RF, please press between 5 and 10" on the button:
- the 2 LEDs are on and flash at the same time
- all the display segments are also on
- SPY RF is now in waiting mode

Remark: If you press >10" => no effect => remains off

c) Waiting mode

The SPY RF is ready to receive a configuration or to start a new recording session.
The symbol "**Halt**" is on: no measures in progress.
Use the pushbutton to start.

d) Configuration



SPY RF configuration is done from the Sirius software and then transferred into your SPY RF by radio frequency.

e) Measurement start

The SPY RF C records the number of impulses in each measuring interval (it starts again counting after every storage). It does not record the whole impulses.

The SPY RF has 2 starting mode:

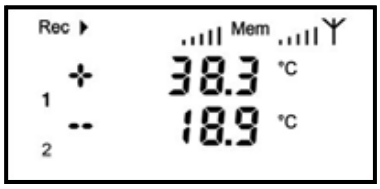
automatic start

manual start

f) Automatic start

Your SPY RF starts recording:

automatically when the configuration is transferred,



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Working LED (green):
2'' => starting measurements
then flashes every 1 minute

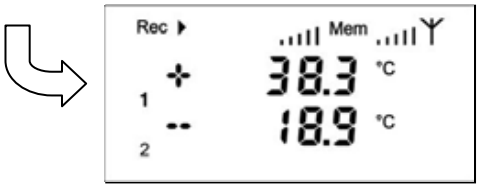
It displays the temperature in °C degrees, channel number, measurement unit and memory status.

The green LED flashes every minute.

The temperature, threshold indicator, channel number and a red LED flashes every 15 sec in case the threshold limit is overpassed.

at a programmed date and time:

dd / mm / yy
hh / mm / ss



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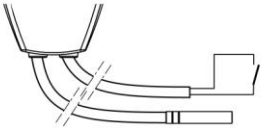
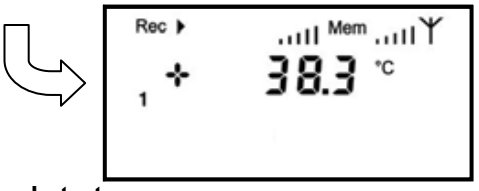
Working LED (green):
2'' => starting measurements
then flashes every 1 minute

when the logical input state changes (on channel number 2)





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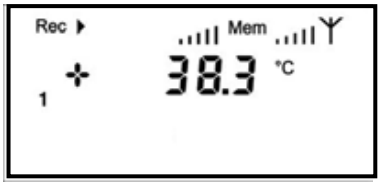
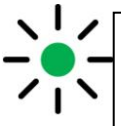
Working LED (green):
2'' => starting measurements
then flashes every 1 minute

g) Manual start

Press shortly on the pushbutton



+ 

Working LED (green):
2'' => starting measurements
then flashes every 1 minute

It displays the temperature in °C degrees, channel number, measurement unit and memory status.

The green LED flashes every minute.

h) Alarm visualisation

The SPY RF is equipped with different alarm indicators, when a threshold limit is overpassed.

Pre alarm

Alarm

+

Alarm LED (red):
Flashes every 15".

Threshold indicator
High or low

Value measured
Flashes every 15"

i) Measurement stop

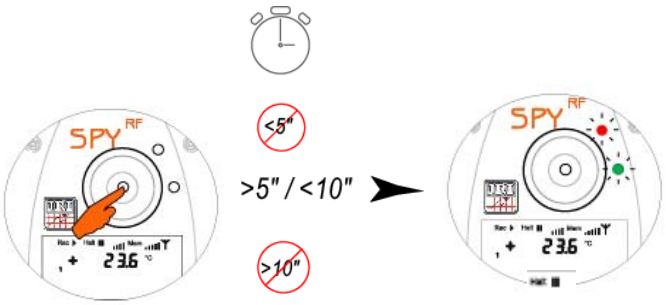
Depending on the configuration, the SPY RF can stop recording or not. The different options are:

Rolling memory: once the memory is full, the new values replace the old ones.

Full memory: the recorder stops when its memory is full.

With the software: you can put the SPY RF in standby mode with Sirius when you do not use your recorder.

With the pushbutton: this option is valid only if the SPY RF is configured in transport mode with a start by pushbutton.



To stop your SPY RF, press between 5 and 10" on the button:

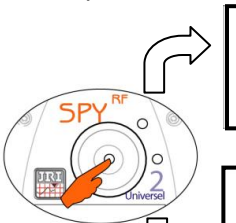
- The 2 LEDs are on and then flash alternatively.
- The screen goes off, Halt goes on.

j) Auto control or top zone

The type of action depends on the SPY RF configuration.

TOP ZONE = Transport mode and AUTO CONTROL = Storage mode

This function enables you to customise an action of measurement check-up. You just have to press shortly on the pushbutton.



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T° OK: green LED is on during 10".

+

Alarm LED (red) is on during 10".

The action is recorded and will appear on the curve when you process the data with your software Sirius.

k) Leds and pushbutton actions functioning

The pushbutton has several functions:

- Starting the SPY RF for the first time

  Press between 5''and 10'' ➔ The 2 leds light on 10'' then flash simultaneously
  Press once <5'' or >10'' and nothing happens. The device has not started.

- Start or stop recording

  These functions depend on the settings done with SIRIUS (starting with pushbutton validated for storage or transport).

Storage

-Press once <5'' and the device starts. No led lights on and the display shows REC and the number of impulses. WITH THE STOCKS MODE YOU CANNOT STOP BY USING THE PUSHBUTTON.
-Press again means a self control or top zone.
-Press once >5'' it has no effect.

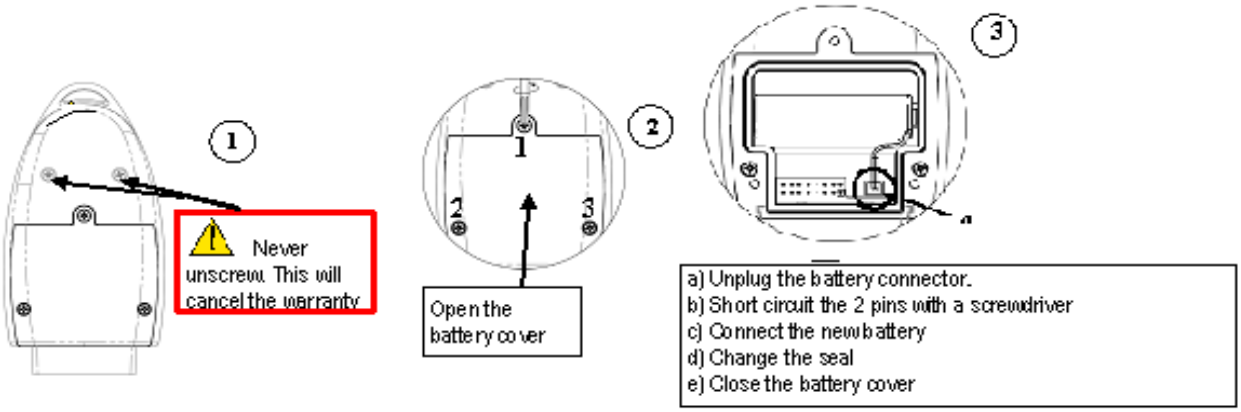
Transport

-Press once <5'' and the device starts. No led lights on and the display shows REC and the number of impulses. WITH THE STOCKS MODE YOU CANNOT STOP BY USING THE PUSHBUTTON.
-Press again means an auto control or top zone.
-Press once >5'' and <10'' and the device stops, then it starts again depending on its restarting mode
-Press once >10'' it has no effect.

VI. BATTERY CHANGE

When the SPY RF battery has to be replaced, the LCD screen displays the following message:

To replace the battery, follow the instructions below:



KEEP THE BATERY FAR FROM THE FIRE ; DO NOT TRY TO RELOAD OR TO SHORT CIRCUIT IT. USE ONLY BATTERIES SUPPLIED BY JRI (REF 06569)

VII. RESET

If the device does not work anymore (cannot turn it on…), use the Reset function in the same way as the battery change.

VIII. FEATURES

FEATURES	SPY RF C
Measurement range Counting Frequency	 32767 impulses 32767 Hz
Number of channels	1 or 2
Type of input	TOR frequency counting
Accuracy	1 impulse / 1 Hz
Recording interval	1s to 90 min
Memory size	20 000 measurements
Operating conditions	-30 +70°C
Temperature for storage	-40 + 85°C
Radio range (in free field)	1 km
Radio band	868MHz
Battery lifetime	2 years
Dimensions	123x69x30mm
Protection level	IP65
CE ERM conformity	EN 301 489 / EN 61000 / EN 61010 EN 55022 / EN 300 220

IX. WARRANTY

JRI Maxant products carry a one year warranty and guarantee against defects in their components or workmanship.
During this period if any product supplied by the Company proves on inspection to be defective, the Company will at its own option replace the same or refund to the Buyer the price of the product.
In no circumstances will JRI Maxant' liability exceed the price of the product paid by the buyer or the cost of replacement.
JRI Maxant shall not in any event be liable to the Buyer for any indirect or consequential loss or damage costs or expenses whatsoever which might arise out of or in connection with the supply of the product or its consequent use.
Consequently, the products warrantee and guarantee specified above, does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification, or use with non-JRI Maxant' hardware/software. No warranty of fitness for a particular purpose is offered and the user assumes the entire risk of using the product.
In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

X. MAINTENANCE CONTRACT

How to optimize your radio frequency installation?

RF measuring systems communicate by radio frequency. However, there may be several factors that can modify the radio ways already defined, such as moving from a building, adding walls, … Radio frequency requires thus a periodical follow up performed by specialists.

That's why JRI Maxant has created maintenance contracts. We bring you a global solution which makes your maintenance easier. This overall service offer includes maintenance and also metrological services, which ensure you that your system is fully performant.

You won't worry about your devices maintenance anymore !

With this maintenance contract you will benefit for a minimal period of 2 years from the following advantages:

- material verification once or twice a year
- warranty extension
- telemaintenance
- telephone assistance **+33 (0) 892 680 933 (0,282 €/min)**
- material replacement on site or by return in our manufacture
- metrological certificates: verification of measurement accuracy
- battery change
- access to new software versions and updates
- on-site intervention time within 3 open days after problem identification by our experts

XI. ENVIRONMENT PROTECTION

JRI Maxant recommends to our customers to throw away their measuring and recording devices which are unserviceable and/or beyond repair in a way that is appropriate to environment protection. Insofar as the production of waste cannot be avoided, it is best to re-use them by proceeding with adapted recycling depending on the material used and considering the environment protection.

RoHS Directive

The ROHS European Directive rules and limits the presence of hazardous substances in electrical and electronic equipments (EEE).

In the article 2, the scope of this Directive excludes "9. Monitoring and Control Instruments" and our products are part of this category.
Nevertheless, our company has decided to apply the whole dispositions of this Directive for all our new electronic devices which will comply to this 2002/95/CE Directive.