NOTICE D'UTILISATION
USER MANUAL

Spy RF Relay

06416D

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I. INTRODUCTION

Congratulations, you own a SPY RF Relay ! This device allows to relay radio communication to Spy RF out of reach from radio communication of a Modem.
The SPY RF Relay complies with EN 12830, only with temperature probes.

a) Equipment

- 1 Spy RF Relay
- 1 wall-mounting bracket
- 1 adhesive plaster
- 1 protection connector
- 1 user manual

b) Symbols

|	
♲	RECYCLING : do not throw in a rubbish dump or in a domestic waste container. Comply with the regulation to throw away the device.
===	POWER SUPPLY : this device is powered by a continuous current delivered by a main power supply adaptor (230VAC). Comply to the security and utilization regulations of electric power. Use an electric installation complying with these regulations
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.
FC	FCC ID: 09595 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 In accordance with FCC requirements, changes or modifications not expressly approved by JRI Maxant could void the user's authority to operate this product. NOTE: 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

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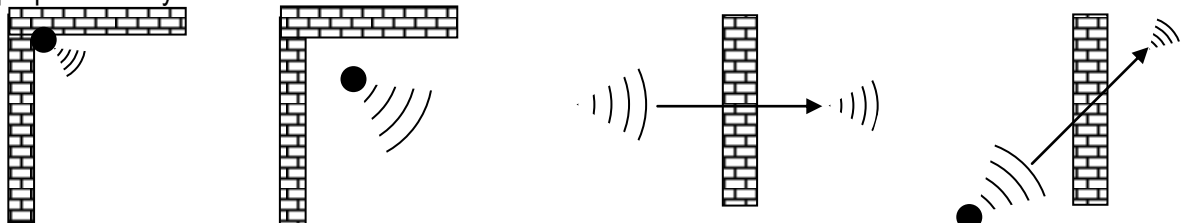
Waves cannot pass through full metallic walls. On the other hand, a perforated wall allows the waves passing with attenuation
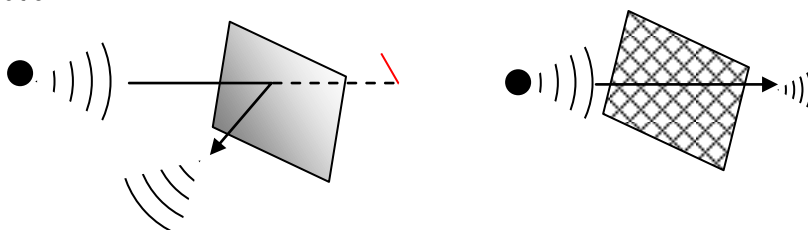
III. INSTALLATION

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

c) Connector

The Spy RF RelaY has an embedded rechageable battery.
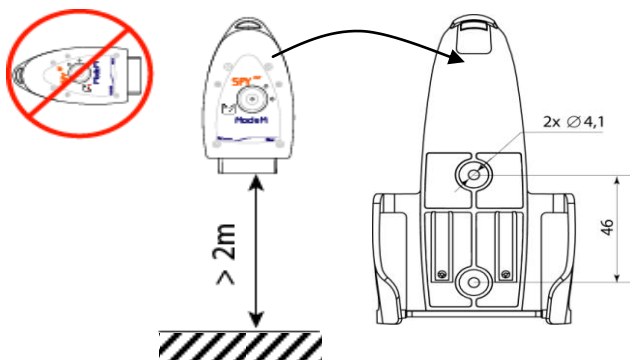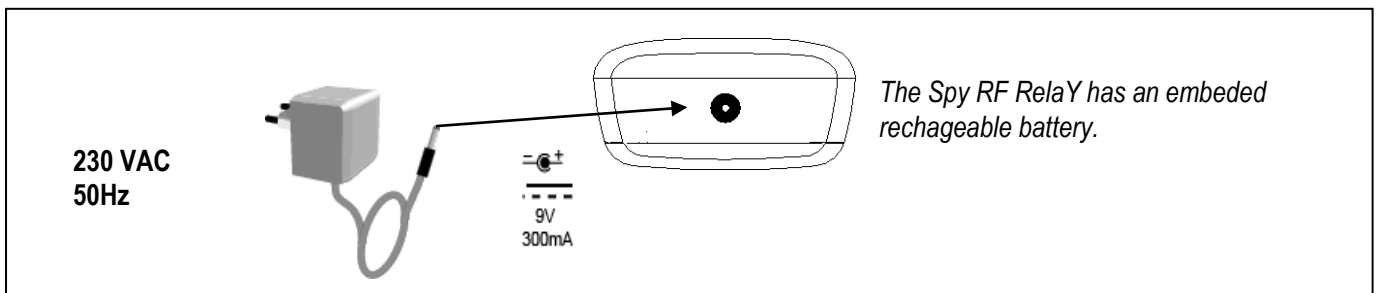
For the 1st use, the Spy RF RelaY must be powered between 6 and 12h before move it. If after unpowered and repowered it is not recognized by Sirius, remove power supply until the battery is empty. Repowered it again

IV. CHARACTERISTICS

Operating range	-0 +40°C 0-90%HR *not condensing*
Storage range	-40 + 85°C
Radio range (in free field)	1km
Radio band	868MHz or 902MHz
Power supply	9 VDC – 300mA
Rechargeable battery	NIMH 6V
Autonomy without power supply	from 19 to 32h
Dimensions	123x69x30mm
Protection degree	IP34
CE ERM conformity	EN 301 489 / EN 61000 / EN 61010 EN 55022 / EN 300 220
FCC Compliance	FCC part 15

V. SPY RF DECLARATION

- **Open Sirius and follow the instructions**

The address of the Spy RF RelaY will automatically wrote in the relay table of the choosen device with **(Sirius 1.5 and above)**

VI. TABLE RELAY CONFIGURATION

For Sirius Versions <1.5

To contact wirelessly Spy RF that are out of reach of a direct access from the Spy RF ModeM, it is necessary to use intermediary device (Spy RF RelaY) as a relay antenna. That its already true for remote alarms with the Spy RF AlarM.
As a reminder the configurations authorized by the Spy RF range in relay mode are:
 Up to 100 devices per ModeM (Spy Rf + Spy RF RelaY) for the same line of relay. It is possible to use only 2 Spy RF Relay in series

To set up the relay mode, you have the possibility to use the Spy Tab software supplied in the Sirius CD or by entering manually the address of the spy RF relayed

- **Manual set up**

Two lines have to be completed in **"more details"** of RelaY and ModeM configuration

| Table relai satellite direct | 80.00.00.00.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF |
| Table multi relai | FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF.FF |

- *Without relay*

Cell to be configured / Device	Spy RF ModeM	Spy RF RelaY 1	Spy RF RelaY 2	Spy RF
Direct satellite relay table				
Multi relay table				

- *With 1 Relay level*

Cell to be configured / Device	Spy RF ModeM	Spy RF RelaY 1	Spy RF RelaY 2	Spy RF
Direct satellite relay table	Fill in the the Spy RF RelaY 1 followed by the Spy RF N° relayed	Fill or copy from the modem table the N° of directly relayed Spy RF		
Multi relay table**				

- *With 2 Relay level*

Cell to be configured / Device	Spy RF ModeM	Spy RF RelaY 1	Spy RF RelaY 2	Spy RF
Direct satellite relay table	Fill in the the Spy RF RelaY 1 and 2 N° followed by the Spy RF N° they relay	Fill or copy from the modem table the N° of directly relayed Spy RF		
Multi relay table		Fill or copy from the modem the N° of the Spy RF RelaY 2 and those of the Spy RF they relay		

fig 1

- **Maximum number of interrogated Spy RF**

Spy RF ModeM	Spy RF RelaY 1	Spy RF RelaY 2	Nombre de Spy RF

Illimité
Illimited

80 maxi*

40 Max*

100 maxi*

80 Max*
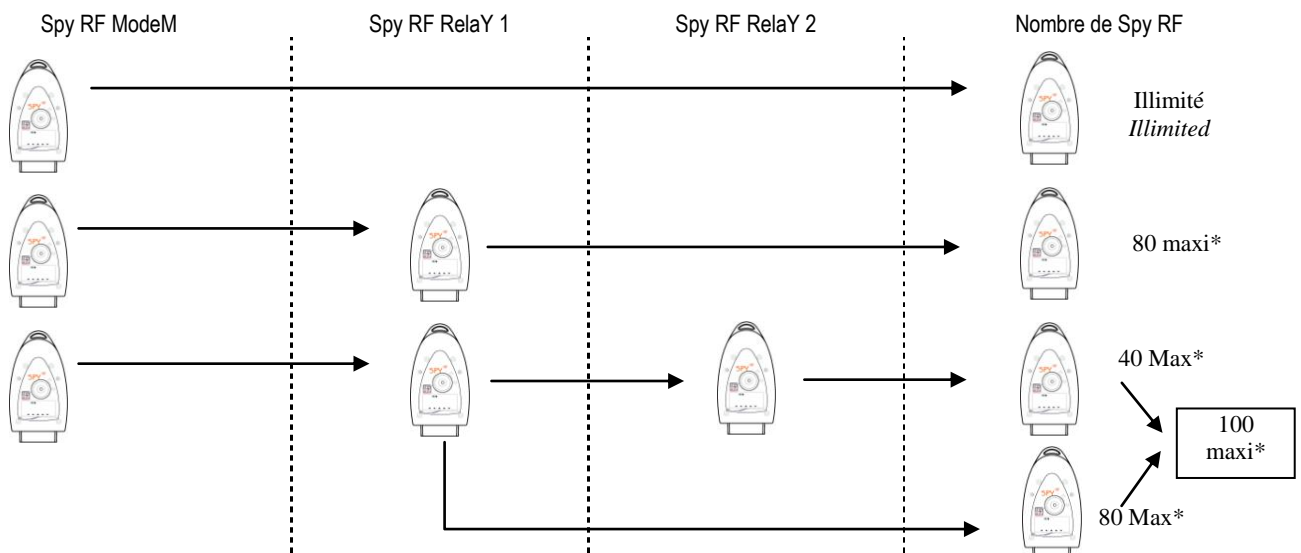
* *Spy RF RelaY included*

- **Sirius configuration**

    To make a relay works correctly with Sirius, it is necessary to declare for each Spy RF Modem and Spy RF RelaY all the Spy RF they have to relay.

    Relay table declaration for Spy RF ModeM and Spy RF RelaY

    From Sirius home page open **Device management** window

    Select the Concerned Spy RF ModeM or Spy RF RelaY (N° bigins by 70 for a Spy RF ModeM and by 80 for a Spy RF RelaY) in **FLEET** then click on **more details** in upper right side of the window

The following table appears

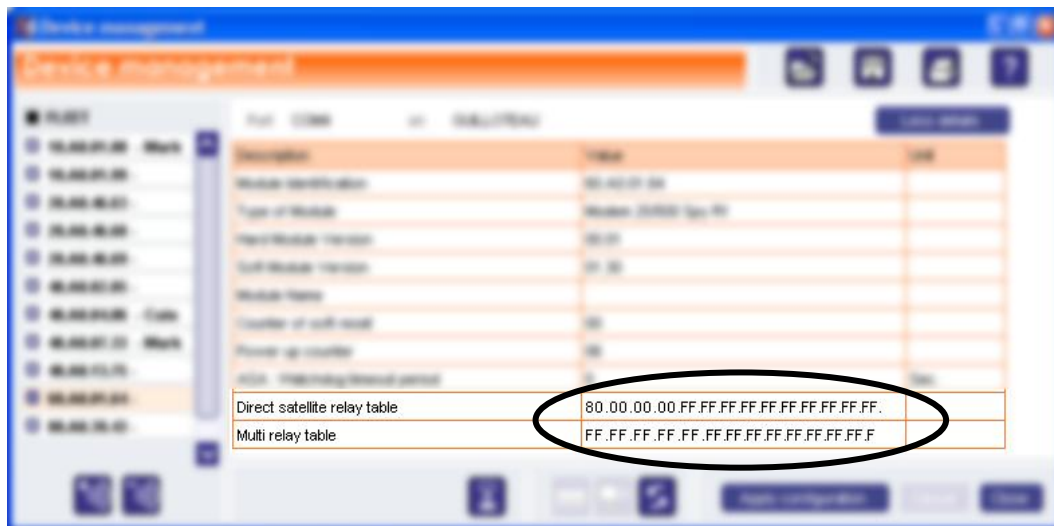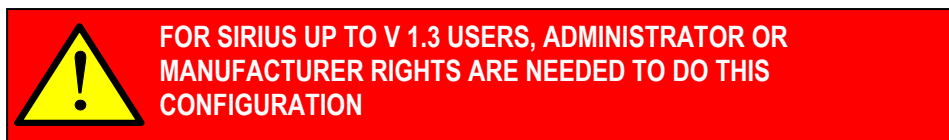   After supressing the contents (ctrl+end then del) fill the fields with the device n° existing in the **Fleet** list witout care of the seperatorcharacter (dot) and following the instructions of the above table (fig 1).

    (ie: For the device 10.A0.01.00 fill 10A00100 and so on)

    Once all the relay tables filled click on apply configuration to transfer the configuration to all devices

    N° STRUCTURE/ 10=Device model & A00100=serial N°

T	T+	TH	U,N,C	TC	RelaY	AlarM
10	20	30	40	50	80	90

⚠ **FOR SIRIUS UP TO V 1.3 USERS, ADMINISTRATOR OR MANUFACTURER RIGHTS ARE NEEDED TO DO THIS CONFIGURATION**

- **Installation modification**

    If for any reason, a relayed device has been replaced in Sirius, it is necessary to modify relay tables in consequence. So:

    -Select the adress of the replaced device

    -Supress this adress with the Del key of the keyboard

    -Fill the adress of the replacing device without care about separators

    -Ones the adress filled, click in another cell of the table or press enter to validate.

  -do it again for each table in wich this adress had to be replaced.

VII. 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.

VIII. 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 € HT/min)**
- material replacement on site or by return in our manufacture
- metrological certificates: verification of measurement accuracy
- access to new software versions and updates
- on-site intervention time within 3 open days after problem identification by our experts

IX. 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.