

# **USER'S MANUAL**

## **Fidbox V.6-1**

**FW: V 1.2**



# **CONTENTS**

<b>1</b>	<b>PRODUCT DESCRIPTION</b>	<b>4</b>
1.1	General.....	4
1.2	Technical data.....	5
1.3	Installation Instructions.....	6
1.4	Certificates .....	8
1.4.1	EMC .....	8
1.4.2	EMI.....	8
1.4.3	FCC.....	8
1.4.4	IC.....	9



## VERSION INDEX

Version	Date	Author	Description
1.0.0	01.05.2013	SM	Initial document
1.0.1	06.05.2013	SM	Additional FCC Information

# 1 Product description

## 1.1 General

The **fidbox®** is a monitor for temperature (°C) and relative humidity (%) as well as a data log for long-term data recording all in one, which is concealed in the hardwood flooring itself. The data stored therein can be read at any time by wireless transmission and allows the determination of the degree of moisture in the screed and in the hardwood flooring by vertical measurements. This information is not only pertaining to the indoor environment, but is especially important in the event of damage as it provides understandable facts.

For example, if damage occurs to the floor due to excessive floor temperature in the hardwood or through increasing or decreasing of moisture, often a lengthy fundamental research as to cause is needed and this might result in unjust blame. The **fidbox®** puts a stop to that and provides unadulteratable clarity as to the question of guilt; prompt – candid - definite!

The **fidbox®** brings measurable benefits to the hardwood installer, designers, owners, occupants or builders. The results of the measurements can quickly clarify damage claims and thus speed up the process of clarification and solution.

The **fidbox®** is a product that is directed at resolving a genuine problem and it offers a lot of extra security on top. The relevance of this subject itself is apparent, as many damage claims can eventually endanger the pure existence of many hardwood installation companies. The **fidbox®** provides unadulteratable results that are recognized by hardwood flooring inspectors and therefore an important element in the preparation of a court case.



## 1.2 Technical data

<b>Carrier</b>	2.4 GHz ISM- Frequency Band
<b>Protocol</b>	proprietary
<b>Number of channels</b>	1
<b>Output power</b>	max. -20 dBm
<b>Power supply voltage</b>	3 V DC Lithium Battery
<b>Current consumption</b>	avg. 15 mA – 5 µA (power down)
<b>Ambient temperature</b>	0°C to +55°C
<b>Weight</b>	30 g
<b>Dimensions (W x H x D)</b>	95.5 mm x 52.5 mm x 7 mm
<b>Humidity</b>	Accuracy: up to +/- 2% rH Resolution: 0,04% rH Repeatability: up to +/- 0,1% rH
<b>Temperature</b>	Accuracy: up to +/- 0,3°C bei +25°C Resolution: 0,01°C Repeatability: up to +/- 0,1°C

## 1.3. Installation Instructions

Congratulations, you have decided to install the **fidbox®**. This was a good decision for your future security and the health of your clients. When the **fidbox®** that you ordered leaves our humidity chamber, we check it for complete functionality and provide you with our warranty. Please pay attention to the following recommendations and help ensure the flawless functioning of the **fidbox®**. Choose the optimal location for the **fidbox®** together with the builder or architect before installation. The **fidbox®** should be integrated into rooms with the **highest room climate variability**, for example, in the middle of the room or above areas of underfloor heating.

A minimum of one **fidbox®** should be planned for each room with a size **greater than 30 m<sup>2</sup>** of floor space at a distribution of **one per 50 m<sup>2</sup>** of total wood floor area. In multi-story buildings and/or rooms with multiple heating circuits there should be at least one **fidbox®** per floor or heating circuit.

We will gladly provide support during the planning stage. See our pamphlet regarding “Where to place the **fidbox®**”, which is available on our website.

**Please Observe: (reading errors may occur by non-observance)**

- no furniture should be placed over or on the position of the **fidbox®**
- do not lay textile rugs over the position of the **fidbox®**
- avoid strong magnetic fields on or above the **fidbox®**

### **Warning!**

- Store the **fidbox®**, dry and frost-proof at room temperature (+17°C to + 23°C)
- Safeguard the **fidbox®** in the supplied storage box until ready for use.
- Never subject the unprotected **fidbox®** to direct sunlight or submerge in water.
- Do not crack or bend. Never drill or saw through the **fidbox®**.
- Do not store the **fidbox®** near magnetic fields.

In case of loss of battery power **the stored data remains intact for many years after power loss and can be recovered**. In this case contact floorprotector.

Visit our website at [www.floorprotector.at](http://www.floorprotector.at) for further information. You will find among other things the technical data sheets and the translation of this installation instruction in other languages and information about our new **fidbox®** APP.



## Step by Step



### 1st step

The **fidbox®** should be installed into the wood floor **directly under the top layer**.

**Attention:** please note that at least **3 mm of the top layer** must remain. Otherwise a crack in the hardwood element can occur.

It is necessary to mill out the necessary recess in the wood floor in the required dimensions (l x w x d) of the **fidbox®** 9.5 x 5.3 x 0.8cm (in addition to **a min. 8 mm** the hardwood panel edge) with the aid of a template. This can be accomplished professionally using a router or with the use of suitable tools.

### 2nd step

During the wood floor installation the cover of the adhesive strips which is applied to one side of the **fidbox®** is peeled off and the **fidbox®** is then fixed with this side being inserted into the wood floor piece. Use no other adhesive or sealants as they can under certain circumstances endanger the flawless function of the **fidbox®**.

### 3rd step

During wood floor installation you insert the prepared wood floor piece at the pre-determined position. Avoid the contact of wood floor adhesive to the underside of the **fidbox®** which is the point (see blue circle above) of measurement as it might cause inaccurate measurement readings. It is best to leave this area near the sensor free of adhesive. Solvent based artificial resin adhesive should not be used as it may also cause inaccurate measurements.

### 4th step

After the wood floor installation is finished, note the exact position of the **fidbox®** in the "**fidbox®** Installation Record" which can be downloaded from [www.floorprotector.at](http://www.floorprotector.at) and enter all general information concerning this particular project. These records will facilitate the prompt locating of the **fidbox®** and simplified data recovery. A simplified sketch with dimensions should be prepared and a copy given to your customer. This information will be needed for logging into the **fidbox®** APP.

## 1.4. Certificates

### 1.4.1 EMC

The fidbox has been tested and found to comply with the following test standards:

- EN 301 489-1 V1.9.2: 2011
- EN 301 489-17 V2.2.1: 2012
- EN 61000-4-2: 2009
- EN 61000-4-3: 2006 + A1: 2008 + A2: 2010
- EN 62311 1999/51/EC

### 1.4.2 EMI

The fidbox has been tested and found to comply with the following test standards:

- ETSI EN 300 328 V1.8.1: 2012-06

### 1.4.3 FCC

#### FCC ID : 2ADQTV6

NOTE: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.





#### 1.4.4 IC

##### IC ID : 12568A-V6

##### For Canada - IC:

Statement acc. RSS Gen Issue 3, Sect. 7.1.3

This device complies with Part 15 of the FCC Rules and with Industry Canada license-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.

