Handbook

Version 03-2016

Contents

HMBox - Case

Screw driver – for uplifting the HMBox

HMfix – adhesive for mounting the HMBox

Stanley knife – for removal of remaining HMfix

Release agent – for residue free removal of the HMfix

HMBox

Mounting the HMBox

1. Apply Release Agent
Please left box in the case, turn cover to the left and open it. Apply agent on Aluring
! ATTENTION: a thin film must be applied before adhesive application. This simplifies the later removal of the Hmfix adhesive.

2. Hmfix
Without exception **only** this special adhesive should be used. !!! Other adhesives could damage the sensors or cause falsified measurement results.!!!
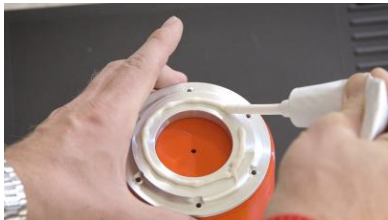
3. Hmfix application
apply a closed application around the ring with a thickness of ~ 3mm. The Hmfix requires approximately ½ hour to harden.

4. HMBox bonding
direct to the selected location and just lightly press downward.

Activating the HMBox

1. Start **HMBox-APP** on Smartphone
   and log in with your user account data.

2. Under *„My HMBoxes"* add a HMBox with "+"
   ALWAYS pay attention, that you have an active
   Bluetooth-connection as well as an existing network.

3. Fill in all data and *„Connect"*
   HMBox No.: 6-digit number (starting with 9)
   Name: Name of the location on the Project
                   (e.g. Living room)

Activating the HMBox

4. Fill out all of the given fields and *„Save"*

   You can choose an existing address or fill in a new address

5. Under "My HMBoxes"
   create the desired construction site
   (this is only possible before or during the activation)

Activating the HMBox

Back

Add construction site

Manage construction sites

43/13 Raum 500

6. Under *„Add construction site"*
you can set up a new project
see below 7.
or you choose an existing site

Back

Add construction site

Site name

Address

Street

House nr.

Postal code

City

Country

Save

7. Fill out all of the given fields and *„Save"*

Site name: Name of the project
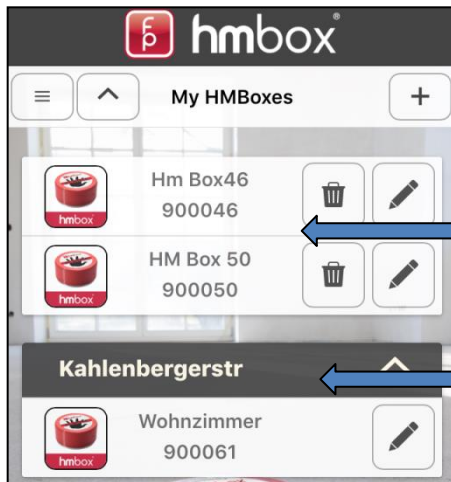
Street:
House no.:
Postal code: Address of the project
City:
Country:
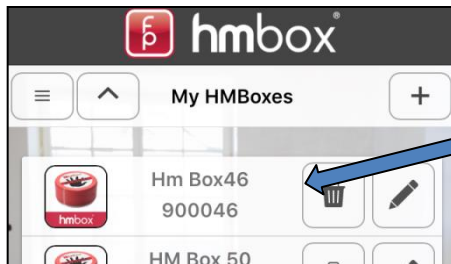
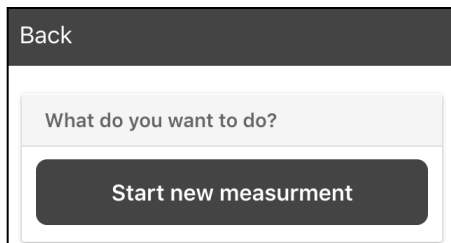with "Back", back to the main menu

Activating the HMBox

8. Now the HMBox is shown under *„My HMBoxes"*

HMBoxes, that are not activated, appear at the top (have not been assigned to a project)

HMBoxes, that are actually taking measurements (appear under the assigned project)

9. Select the desired HMBox by clicking on it.

10. Press *„**Start New Measurement**"*

Activating the HMBox

Back
Site information
Constructio ▾
Room name
Building unit
Stair nr.
Storey
Top nr.
Floor heating ◯
Activate alarm ✓
Activate GSM ✓
Meas. interval [1 ▾] hours
Reset battery ◯
Start measurement

11. Here the previous set up project can be selected and possibly changed.
(Simplifies the project management later)

Select the desired project

Fill in the exact details of the project

Alarm and GSM should always be activated

Measurement interval of 1h is pre-set. Interval is adjustable

Reset the battery is only required by battery change

12. *Press „**Start Measurement**"*
now the settings on the smartphone will be sent to the HMBox. This means that the Alarm and GSM have been switched on and the measurements begin.

ATTENTION: It is necessary to wait for the activation check!!

Checking the Activation

The transfer of the entered data and the activation of the APP to the HMBox will take approximately 2 minutes.

The LED-Light on top of the HMBox begins to blink red which means that the measurement process and the Anti-Theft protection have been started.

A measurement takes place in the background, the GSM reception is tested and at the same time the data is sent to the server.

Once the activation process is complete, an audible „peep series" will sound twice. The signal indicates the reception strength of the GSM reception. (e.g. 5x the peep tone means the best reception. The data has been successfully sent to the server and you can read the date of the first measurement on your smartphone after about 5 minutes.

The HMBox now performs a measurement each hour and records them. Every 12 hours the data is transferred to the server via GSM.

The next transmission of the measured data is therefore 12 hours after activation at the site. From this time forward you can call up the data on your smartphone over the *HMBox-App* or from your workstation over the *FP Desktop Professional Software* (without having to be on site).
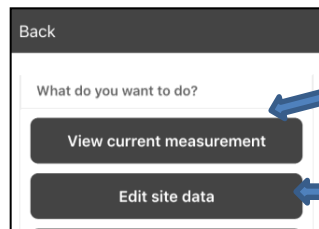
Manual synchronisation

1. A **manual synchronisation** is **only** possible on site in the direct vicinity of the HMBox (~ 8m), Bluetooth connection must be active and sufficient network connection
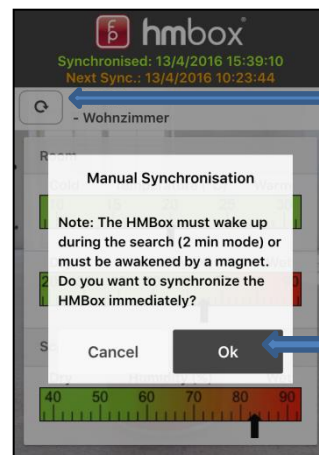
   Select a HMBox
   Box is highlighted in greed

2. "**View *current measurement*"**

   (here you can also change the project data under „*Edit site data*", if necessary)

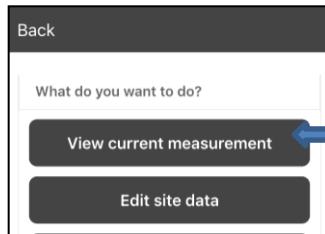3. Press the wheel [⟳] in the upper left corner

   *Press „**OK**"*
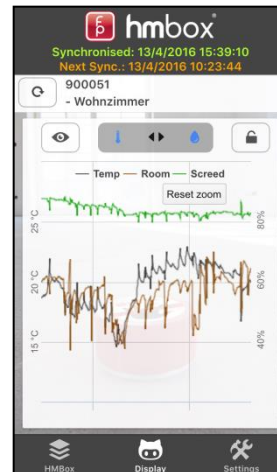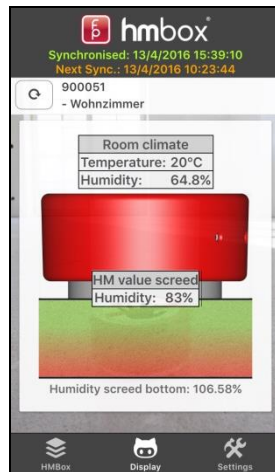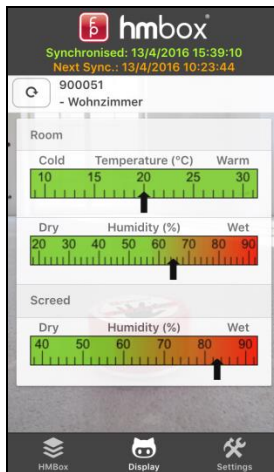   Connection to the HMBox will start

View measured data

1. Select HMBox
   HMBox is highlighted in green

2. Press „*View current measurement* "

   (here you can also change the project data under „*Edit site data*", if necessary)

3. Measured data in different views

Deactivating the HMBox
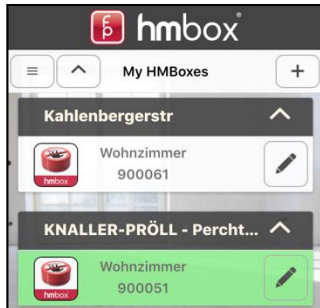
1. Under "*My HMBoxes*"
   Select HMBox you want to deactivate
   HMBox is highlighted in green
   (Bluetooth connection must be active and
   sufficient network connection)
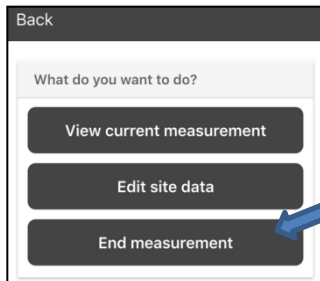
2. *„End Measurement"*

ℹ️ With this function, the measurement process is stopped and the
GSM and Alarm protection are deactivated.
The HMBox can now be removed.
The measurement data are saved in the project administration and
a measurement protocol can be generated using the
"FP Desktop Professional Software".

Removal of the HMBox

1. Place the head of the screwdriver that is found in the HMBox-case carefully underneath the ring on the bottom side of the HMBox and turn right until the box automatically triggers off the ground.

2. The HMBox will be released from the adhesive „Hmfix" residue free, when the release film has been applied before attaching the HMBox to the substrate. Stubborn residue can be easily removed with the stanley-knife.

Additional Information

All HMBox units used are set up and saved in the „Project Administration" under their project name.

        highlighted in green = completed measurements
        highlighted in red   = active measurements

Should you need more detailed measurement records or reports, we recommend the (purchasable) FP Desktop Professional Software. With this software you can easily manage projects and create reports on a Workstation or a mobile laptop.

You can added any number of HMBox units and projects. The data are saved on the HMBox database for an indefinite period of time.

You can delete the HMBox units with this symbol

CAUTION: All deleted data are irrevocable deleted from the App, the browser software and the HMBox Database and can not be restored.

Additional Information

CE / FCC / IC proved

FCC:

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

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.

IC:

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.

ACHTUNG/ATTENTION:

Das Gerät min. 20cm vom Körper entfernt bedienen.

This equipment should be operated with a minimum distance of 20 centimeters between the radiator and your body.

Technical Information

Carrier	**2.4 GHz ISM- Frequency Band (Bluetooth LE)** **GSM 850, E-GSM 900, DCS 1800, PCS 1900**
Protocol	Bluetooth LE Standard HTTP (GSM)
Output power	max. +4 dBm (Bluetooth LE) max. 2 Watts GSM & GPRS (GSM 850, E-GSM 900) max. 1 Watts GSM & GPRS (DCS 1800, PCS 1900)
Power supply voltage	4 x AA Lithium Battery L91
Current consumption	avg. 30 mA – 5 µA (Standby Bluetooth mode) max. 1.8A (GPRS communication on GSM 850, E-GSM 900)
Ambient temperature	0°C to +55°C
Weight	350 g
Dimensions (W x H x D)	H: 6cm / Diameter: 10,5 cm
Humidity	Accuracy: up to +/- 2% rH Resolution: 0,04% rH Repeatability: up to +/- 0,1% rH
Temperature	Accuracy: up to +/- 0,3°C bei +25°C Resolution: 0,01°C Repeatability: up to +/- 0,1°C

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