



For use only with
**Advair™ Diskus™/Seretide™ Accuhaler™
Flovent™ Diskus™/Flixotide™ Accuhaler™**

Product Manual



This Product Manual will help you to get the most out of your Hailie® sensor. Please read the manual before using the sensor.

Hailie® Sensor Intended Use

The Hailie® sensor is intended for single patient use in the home environment as a medication reminder and electronic data capture accessory for recording usage of prescribed Inhaler medication. This may be used in the following applications:

- In clinical trials, where researchers need to know when a patient has used their trial Inhaler medication.
- In clinical practice, where specialists, general practitioners, nurses, and educators need to know if a patient has used their prescribed Inhaler medication.
- In self-management, where patients need to track their medication use as part of their management plan.

The Hailie® sensor is compatible only with the **Advair™ Diskus™/Seretide™ Accuhaler™ and Flovent™ Diskus™/Flixotide™ Accuhaler™** inhalers.

The Hailie® sensor is not intended to indicate remaining quantity of medication in an Inhaler and does not include a dose counting function.

Important User Information

Warnings identify actions or situations that could lead to personal injury. Take note of all warnings before using the Hailie® sensor.

Precautions identify actions or situations that could damage the Hailie® sensor or other equipment, or affect the accuracy or availability of recorded usage data.

Notes contain advisory information about some aspect of the Hailie® sensor or its use.

Warnings and Precautions

To ensure your Inhaler functions correctly, do not use the Hailie® sensor with any other Inhaler or medication than that indicated on the Hailie® sensor label.

Refer to the labelling provided with the Inhaler for instructions on use. Carry out all steps required to use your Inhaler according to the instructions.

The Hailie® sensor is intended to track medication usage. It is not intended to diagnose your condition or to replace the diagnosis of a licensed physician.

This manual does not provide information on how to use prescription medication, and is not intended to replace the advice provided by a health professional. Directions for using prescription medication should be obtained from a health professional and followed accordingly. Any questions related to prescription medication should be referred to a health professional.

US only: Read the labels on both sides of the Inhaler before installing into the Hailie® sensor.

US only: Important instructions for use of the Inhaler are printed on each side of the Inhaler. The labels are covered when the Hailie® sensor is installed. The labels can be checked at any time by removing the Hailie® sensor from the Inhaler, and replacing it after the labels are checked. Follow the steps in *Installing and Removing an Inhaler*.

The Hailie® sensor does not contain a dose counter. Do not use data collected by the Hailie® sensor to determine the number of doses remaining in an Inhaler.

If your prescribed Inhaler changes, do not use it with this Hailie® sensor. Only use a Hailie® sensor that is labelled as compatible with your prescribed Inhaler.

Keep the Hailie® sensor outside MRI scanner rooms.

Setup and use of the Hailie® sensor for patients under 12 years of age requires assistance from a parent or caregiver.

To ensure accuracy of Inhaler usage records, only open the Inhaler when you take your medication, and always close it again afterwards.

The Hailie® sensor is a battery- powered electronic device. Do not use the Hailie® sensor if it is not in good condition. Take care to not spill liquids on the Hailie® sensor or immerse it in water.

Do not expose the Hailie® sensor to excessive perspiration during exercise.

For hygiene and data integrity reasons, do not use the Hailie® sensor with more than one patient.

Remove the Hailie® sensor from the Inhaler before cleaning the Inhaler.

Do not use the Hailie® sensor while charging to avoid risk of electric shock.

What is the Hailie® Sensor?

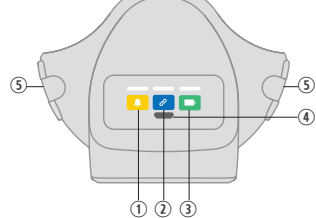
The Hailie® sensor is a companion tool that tracks your prescribed medication use and reminds you when to take your prescribed medication.

The Hailie® sensor is a small battery-powered electronic data logger that attaches to an Inhaler. The Hailie® sensor contains an electronic clock and calendar that is used to log the date and time of Inhaler usage. Usage data can be uploaded via a wireless *Bluetooth®* connection.

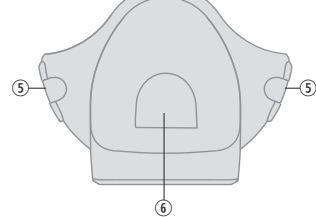
The Hailie® sensor has a built-in audiovisual alert to remind you when to take your prescribed medication – and tracks when you did – so you can have confidence you're following your prescription.

Hailie® Sensor Components

Front View



Back View



Key

1. Reminder Button and Reminder LED
2. Pair Button and Pair LED
3. Battery Button and Battery LED
4. USB Port
5. Clips
6. Serial Number Label

Compatible Inhalers

The Hailie® sensor is designed to work only with the Inhaler and medication indicated on the Hailie® sensor label.

The compatible Inhalers are:

- **GSK Advair™ Diskus™** (100/50, 250/50, 500/50 mcg)
- **GSK Flovent™ Diskus™** (50, 100, 250 mcg)
- **GSK Seretide™ Accuhaler™** (100/50, 250/50, 500/50 mcg)
- **GSK Flixotide™ Accuhaler™** (50, 100, 250, 500 mcg)

The Hailie® sensor intended population is identical to the intended population of the compatible Inhaler.

Preparation for First Use

Setup and use of the Hailie® sensor for patients under 12 years of age requires assistance from a parent or caregiver.

Following manufacture, the Hailie® sensor is placed in Deep-Sleep mode to conserve battery life. To check if the Hailie® sensor is still in Deep-Sleep mode, press the Pair Button once. The Pair LED will flash white if it is still in Deep-Sleep.

The Hailie® sensor must be paired with a compatible *Bluetooth®* mobile device in order to sync stored usage data.

Download a compatible mobile app to communicate with your sensor. For more information go to support.hailie.com.

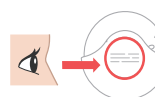
Ensure *Bluetooth®* is enabled on your mobile device.

1. Before first use, place the Hailie® sensor on charge for up to 8 hours or until the Battery LED stops flashing green. This will wake the Hailie® sensor from Deep-Sleep mode.
2. When charging is completed, open the compatible mobile app and disconnect the Hailie® sensor from the power supply.
3. The Hailie® sensor will automatically enter *Bluetooth®* pairing mode and the Pair LED will flash blue for 60 seconds.
4. Follow the prompts to complete the pairing process.
5. The Pair LED will flash green to indicate successful pairing.

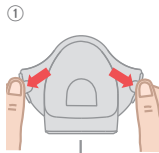
If pairing is not successful within 60 seconds the Pair LED will flash red. The pairing process can be repeated if necessary by holding down the Pair Button for 1 second to initiate pairing.

The Hailie® sensor can only be paired with a single mobile device at one time. Successful pairing with a new mobile device will remove the current pairing. If pairing on the new mobile device fails, the existing pairing will be retained.

Installing and Removing an Inhaler Installation



US Only: Read the labels on both sides of the Inhaler before installing into the Hailie® sensor.



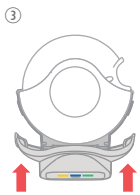
To install the Inhaler hold the Hailie® sensor in an upright position.



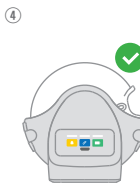
Open the cover of the Hailie® sensor by pulling the Clips.



Place the Inhaler into the Hailie® sensor with the Inhaler dose counter facing upwards.



Close the Hailie® sensor, ensuring the clips snap shut on both sides.



The Hailie® sensor is ready to pair with a compatible mobile app. Follow the instructions below in *Setting Up Bluetooth® Communications*.

The Hailie® sensor will not detect an inhaler use for 5 seconds after the inhaler is installed into the sensor.

Removal

To ensure medication usage is detected, wait for 3 seconds after medication usage before removing the inhaler from the Hailie® sensor.

1. To remove the Inhaler hold the Hailie® sensor in an upright position.
2. Open the Hailie® sensor by pushing the clips and opening the side latches.
3. Pull the Inhaler to remove it from the Hailie® sensor.
4. Close the cover so it clicks into place.

Delivering a Dose of Medication

Refer to the labelling provided with the Inhaler for instructions on use. Carry out all the steps required to use your Inhaler according to the instructions.

The Hailie® sensor logs Inhaler usage by monitoring when the Inhaler is opened and closed.

To ensure accuracy of Inhaler usage records, only open the Inhaler when you take your medication, and always close it again afterwards.

The Hailie® sensor Battery LED flashes green, orange, or red (to indicate battery level) 3 seconds after detecting medication usage and the Inhaler is closed.

If the Battery LED flashes red or if there is no flash, the Hailie® sensor is not monitoring usage. Check the battery level according to *Reviewing the Battery Level*.

The Hailie® sensor does not detect or record the quantity of medication delivered by the Inhaler.

Medication Reminders

Audiovisual reminders may be available to set up from a compatible mobile app. If enabled, the medication reminders are generated on the Hailie® sensor with increasing frequency for up to 24 minutes, until either the prescribed medication dose is taken or the reminder is cancelled. The Reminder LED flashes green and the Hailie® sensor emits a beeping sound when the reminder alert is triggered.

To cancel the reminder, hold down the Reminder Button until you hear a beeping sound and the Reminder LED flashes red.

Reviewing Inhaler Usage Data

The inhaler usage history can be automatically uploaded via a compatible paired mobile device.

The upload of new information will occur automatically as long as the Hailie® sensor is within range (10 meters or 32 feet) of the mobile device with *Bluetooth®* enabled.

When travelling ensure your mobile device is set to the local time zone for accuracy of Inhaler usage data.

Manually Uploading Stored Information

The Hailie® sensor can manually upload data to a paired *Bluetooth®* mobile device.

- Hold down the Pair Button for 3 seconds until the Pair LED shows white, then release.
- The Pair LED will flash white while the Hailie® sensor attempts to upload, then flash green if the upload is successful.

☒ The Hailie® sensor Pair LED will flash red if the upload is not successful. Check the Hailie® sensor is within range of the paired mobile device and ensure *Bluetooth®* communications are enabled.

Reviewing the Battery Level

The Battery LED on the Hailie® sensor indicates the battery level after detecting medication usage, or when the Battery Button is pressed once.

LED Colour	Battery Status
Green	The battery level is good. The Hailie® sensor is monitoring inhaler usage.
Orange	The battery level is getting low. The Hailie® sensor is still monitoring inhaler usage.
Red	The battery is depleted. The Hailie® sensor has stopped monitoring inhaler usage.
No Flash	The battery is depleted, or the Hailie® sensor has failed, e.g. due to liquid immersion or mechanical stress.

Recharging the Hailie® Sensor

The Hailie® sensor contains a rechargeable battery that is recharged via the USB Port. To recharge the Hailie® sensor, connect it to a computer USB port or USB wall plug adaptor, using the supplied USB cable or a micro-USB cable less than 0.4 metres (16 in) in length.

When connected to a charging source, the Battery LED will flash slowly in a colour according to the battery level. When charging is complete, the Battery LED will turn off.

☐ Do not use the Hailie® sensor while charging to avoid risk of electric shock.

Allow up to 8 hours to fully recharge the Hailie® sensor that is displaying a red flashing Battery LED. Charging times will significantly increase in temperatures below 10°C (50°F).

The Hailie® sensor should be recharged every 4 months as a minimum to ensure continued battery function.

Cleaning the Hailie® Sensor and Inhaler

Check the instructions from the inhaler manufacturer for keeping the mouthpiece clean.

☐ Remove the Hailie® sensor from the inhaler before cleaning the inhaler.

Keep the Hailie® sensor clean and free of chemicals, steam, water and dust. Clean the outside plastic enclosure with a lightly dampened cloth. Check the Hailie® sensor is clean and repeat if necessary. Leave it to dry in a warm place that is less than 30°C (86°F).

☐ The Hailie® sensor is a battery-powered electronic device. Do not immerse the Hailie® sensor in water. Do not use the Hailie® sensor if it is not in good condition.

The cleaning method is intended to support single patient use. If the sensor is contaminated by another individual, it is recommended that the Hailie® sensor be discarded and replaced with a new sensor.

Storage

To help maintain battery capacity, store your Hailie® sensor below 30°C (86°F). Keep out of direct sunlight and avoid extreme temperatures.

The inhaler medication has its own storage recommendations. Refer to the labelling provided with the Inhaler medication.

Troubleshooting

If the Hailie® sensor is not responding to *Bluetooth®* communications, check the Hailie® sensor battery level as per Reviewing the Battery Level in this manual. Ensure *Bluetooth®* is enabled in your mobile device.

Other wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies, and equipment such as contactless payment or anti-theft systems, can affect the Hailie® sensor, and should be kept at least 30cm (12in) away.

Increase the separation distance between the Hailie® sensor and any such devices if this could be causing problems.

If this does not help, contact Customer Support for further assistance.

Customer Support

For support on this product, go to **support.hailie.com**.

☒ For information about your medical condition or your medication, contact your healthcare provider.

☒ **UK and EU only:** Any serious incident that has occurred in relation to the Hailie® Sensor should be reported to Adherium and the health authority of the EU Member State where it occurred.

A copy of this product manual is available on **www.hailie.com/collections/hailie-sensors**

Servicing

Contact Customer Support for Hailie® sensor servicing. Do not attempt to open or service the Hailie® sensor. Tampering with the Hailie® sensor voids the warranty.

Disposal

Dispose of or recycle the Hailie® sensor in accordance with regulations for your country, as applicable for electronic devices containing a lithium polymer battery. Ensure that the Inhaler is removed from the Hailie® sensor prior to disposal.

UK and EU only: Do not dispose of the Hailie® sensor as unsorted municipal waste. The Hailie® sensor must be recycled in accordance with Directives 2012/19/EU and 2006/66/EC. To arrange for return or disposal of the Hailie® sensor contact the supplier.

Warranty

The Hailie® sensor includes a 24 month warranty against manufacturing defects from date of first use. This warranty may be voided under the following circumstances: damage to the Hailie® sensor including dropping, water damage resulting from condensation or immersion, tampering, attempts to service, or other forms of abuse.

The Hailie® sensor warranty expires 4 years from date of manufacture.

Specifications

Model Number	NF0100
Usage Log Precision	1 second
Usage Log Capacity	5120 usage logs and sensor status records
Internal Clock Accuracy	±1 hour after 12 months Note: the Hailie® sensor clock is updated every time data is uploaded to a compatible mobile app.
Compatible with	iOS or Android mobile devices. Go to support.hailie.com for more information.
Wireless Technology	<i>Bluetooth®</i> 4.0: 2.40 - 2.48 GHz, 1.0 mW Low Energy
Battery Type	Lithium Polymer 400mAh, Rechargeable
Shelf Life	2 years
Service Life	2 years
Operating Temperature	0 to 40°C (32 to 104°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)
Operating / Storage Humidity	15 to 90% RH (non-condensing) at water vapour pressure ≤ 50 hPa

Symbols

Product Use	
	Read manual before use
	Keep dry
	Rechargeable Device
	Temperature limit
	Humidity limitation

Product Details	
	Manufacturer: Adherium (NZ) Limited
	Serial Number
	Part Number
	Model Number
	Date of Manufacture
	Country of Manufacture

Regulatory Compliance	
	EU only: European conformity mark
	EU only: Medical Device
	UK and EU only: Do not dispose of the Hailie® sensor as unsorted municipal waste
	AU only: Regulatory compliance mark
	NZ only: Regulatory compliance mark

Electromagnetic Compatibility

The Hailie® sensor does not perform any clinical function where loss or degradation would result in unacceptable risk.

Emissions / Immunity Test and Standard	Compliance Level
Conducted and Radiated EMI CISPR 11	Group 1 Class B
Electrostatic Discharge IEC 61000-4-2	± 8 kV contact, ± 2/4/8/15 kV air
Radiated RF EM Fields IEC 61000-4-3	10 V/m: 80 - 2700 MHz 9 V/m: 710, 745, 780, 5240, 5500, 5785 MHz 27 V/m: 385 MHz 28 V/m: 450, 810, 870, 930, 1720, 1845, 1970, 2450 MHz
Power frequency magnetic fields IEC 61000-4-8	30 A/m
Voltage dips and Interruptions IEC 61000-4-11	0 % UT : 0.5 cycle 0 % UT : 1 cycle 70 % UT : 25/30 cycles 0 % UT : 250/300 cycles

FCC Statement (US)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

“Harmful interference” is defined by FCC as any emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with FCC rules.

The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user’s authority to operate the equipment.

Declaration of Conformity (EU)

Adherium (NZ) Ltd declares that this Hailie® sensor is in compliance with the General Safety & Performance Requirements and other relevant provisions of Regulation EU 2017/745.

Adherium (NZ) Ltd declares that the radio equipment type Hailie® sensor is in compliance with Directive 2014/53/EU.

EU 2017/745, 2014/53/EU, 2011/65/EU

Contact Information

EC	REP
Emergo Europe Westervoortsedijk 60 6827 AT, Arnhem The Netherlands	

UK RP

Emergo Consulting (UK) Limited
c/o Cr360 – UL International
Compass House, Vision Park Histon
Cambridge CB24 9BZ
United Kingdom

Australian Sponsor

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Collins Square | Tower Four
Level 18, 727 Collins Street
Melbourne VIC 3008
Australia

Hailie® sensor is manufactured by:
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