USER MANUAL

SmartMonitor
SHIP S

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User Manual SmartMonitor SHIP S

1 — Last update: 9 December 2022

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Berlinger SmartMonitor SHIP S

Reference number: MKT-80031-EN
Valid from 04/2023

Quick Setup – Monitoring for Shipment

Use this flow to operate your device:

Configure your device
Place your device
Start monitoring
Stop monitoring

Contact Berlinger Support for help.

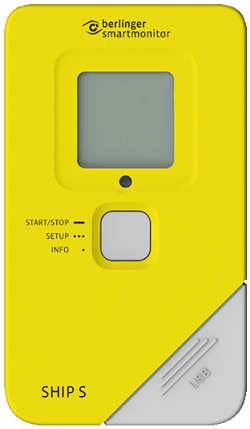
2. Device application information

2.1. Intended use

The SmartMonitor is designed for the monitoring of temperature sensitive pharmaceutical goods in storage and/or transport. The device collects and automatically uploads data to the compatible cloud solution SmartView, for immediate decision-making on product integrity.

> The information is applicable for SmartMonitor SHIP S. For detailed information, read the technical specifications.

SmartMonitor SHIP S



Modular real-time device for shipments. Slim featured and single use.

- Slim featured: temperature monitoring.
- Real-time temperature monitoring: in combination with SmartMonitor SHIP L or SITE L via BLE.
- Single use: single use devices for challenging destinations, where device return and reuse is not feasible.
- The SmartMonitor is capable to supervise product and environment temperature simultaneously.

2.2. Battery information & use

Battery shelf life:

Before first usage: Period from device delivery to customer (on stock), to first start of the device. Within the battery shelf life periode, the device battery run time is ensured according to the technical specification, if stored within the specified storage temperature (device off).

Battery expiry	SmartMonitor SHIP S: once the battery shelf life has been exceeded, the battery expired. The battery expiry date is printed on the front of the device. If the battery is expired, the device cannot be started. The devices can be returned to Berlinger for recycling and refurbishment.

Battery run time:

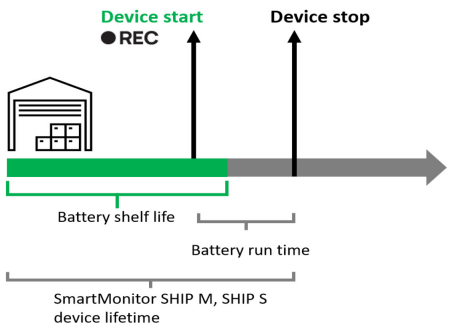
Time between start of the device until depletion of the battery. Shipment devices cannot be charged while monitoring.
Actual run time depends on environmental factors, such as temperature, quality of connectivity, communication technologies and locations services used.

A comparison from the consumer environment:
Impact of temperature: if a mobile phone is exposed to very hot or very cold temperatures, it drains the battery quickly.
Impact of quality of connectivity: if a mobile phone is in an area of bad connectivity, where it continuously is looking for a network, the battery is drained quickly.

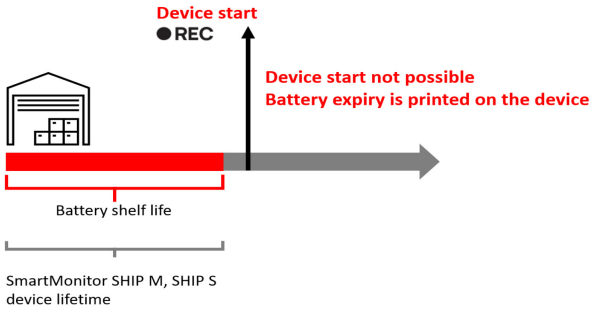
Examples of battery shelf life and battery run time

Battery shelf life and battery run time of a SHIP S

The device start is within the battery shelf life:



The device start is not within the battery shelf life:



If the device is not started within battery shelf life, the battery expired. The device can longer be started. Devices can be returned to Berlinger for recycling and refurbishment.

Please find defined battery shelf life and battery run time per SmartMonitor device model in the technical specification.

2.3. Device lifetime

The typical device lifetime is defined based on a standard use case. Finally, the device lifetime depends on the temperature ranges the device is exposed during its lifetime, careful handling, amongst others.

Find the defined device lifetime per SmartMonitor device model in the technical specification.

2.4. Air freight

The SmartMonitor device supports automatic flight mode, which ensures the automatic enabling of the flight mode upon take-off and automatic disabling of the flight mode upon landing of the aircraft. The flight mode ensures the suspension of all radio signals in flight.

If the landing could not be detected, the automatic flight mode will be disabled automatically after 24 hours.

The SmartMonitor device also has manual flight mode functionality. Follow the instructions to activate manual flight mode.

In order to use SmartMonitor devices for product monitoring in air freight (device on), the SmartMonitor device must be approved by the respective airline. Before using the SmartMonitor on a shipment, please check the airline approval list.

If the airline you would like to use, has not yet approved the SmartMonitor, please contact Berlinger at info@berlinger.com.

Airlines may require the SmartMonitor or batteries to be declared on the AWB (Airway Bill).

For example:

SmartMonitor SHIP M	Lithium coin cell: Not restricted as per *Special Provision A123*.

Disclaimer: Berlinger is not liable for approval to use the SmartMonitor on board of your selected carrier and the correct declaration of the SmartMonitor.

Find the battery specifications per SmartMonitor device type in the technical specification.

Contact your airline for support of the correct declaration.

2.5. Communication & Geographical Positioning

2.5.1. Communication

Communication for automated upload of data from the SmartMonitor SHIP S via SmartMonitor SHIP L or SITE L to SmartView is dependent on the BLE availability at the time of attempt for synchronization at the interval set in SmartView. The SmartMonitor device will automatically choose the most efficient cellular technology available. If no cellular frequencies can be found at the time, the device will try again within a short interval. In order to not drain the battery of the device, the SmartMonitor will not continue to try establishing connectivity, unlike a mobile phone.

For shipments or usage in areas/countries where only 2G technology is available, the synchronization interval should be set to a longer interval. 2G is still a very established network technology in low- and medium-income countries, but it is not as efficient as newer technologies and therefore affects the battery run time.

2.5.2. Geographical Positioning

The SmartMonitor SHIP S has no geographical positioning.

However, in combination with the SmartMonitor SHIP L and SHIP M, your shipment can be localized. For details, please see the technical specification as well as the User Manual SmartMonitor.

2.6. Device cleaning

Important: The device shall not get in close contact with volatile chemicals such as solvents or other organic compounds. Especially high concentration and long exposure must be avoided. Ketenes, Acetone, Ethanol, Isopropyl Alcohol, Toluene, etc. are known to cause drift of the humidity reading.

2.7. Device handling warnings

Important: As the configuration can be changed in SmartView while the SmartMonitor device is running and may not yet have been delivered to the device, the tick and the cross on the device are indicative and may be revised when the configuration arrives at the SmartMonitor.

Air Pressure	• Excess pressure or vacuum can damage the device.
Attention	• The SmartMonitor measures the ambient temperature and not the quality of the monitored goods. Its purpose is to signal if product quality evaluation is required.
Automatic flight mode	• Automatic flight mode may not be activated in all aircraft types. Enable manual flight mode in case of doubt and/or regulation prescribes that radio must be suspended.
Battery	• The battery cannot be removed or replaced. Check the technical specification for detailed battery information. Contact Berlinger support at support@berlinger.com for refurbishment options. • Risk of fire or explosion if the battery is replaced by an incorrect type. • Risk of explosion if the battery is disposed of in a fire or hot oven. • Leaving the battery in an extremely high temperature surrounding environment can result in an explosion or leakage. • Do not subject battery to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas. • Instructions required by IEC 62368-1 regarding coin cells.
Compatibility	• SmartMonitor device only works in combination with the SmartView software (version 6.0 or higher).
Damage	• If the SmartMonitor device is damaged, don't use it and contact Berlinger support for refurbishment options.
General	• Ensure that the user manual instructions are followed before using the SmartMonitor for monitoring. Without proper starting, the measurements will not be available.
Ingress Protection	• IP65: Protect from dust ingress and water spray from any direction.
Liability	The manufacturer shall not be held liable. • if the device was used beyond the manufacturer's given limitations. • for any claims due to improper storage or use of the device. • for any problems with the temperature-controlling and/or -cooling unit. • for the quality of any monitored goods. • for incorrect readings if the device was used beyond its expiry date.
Mechanical	• Avoid violent shocks and impacts.

force	
Microwave	• Do not expose the device to microwave radiation (risk of battery explosion).
Multifunctional button	• Do not apply force as it will damage the button.
Recycling	• Recycle the product at the end of its lifetime according to local regulations.
Safety	• Keep away from children. • Don't open it. • Berlinger recommends training of all persons that handle the SmartMonitor device and/or SmartView.
USB plug	• The USB plug is a sensitive part of the device. • If you are not using the USB plug, keep it covered to protect from water, dust, etc.. • For manual read out, remove the USB cap and connect the plug to your computer. • Do not apply force as it will damage the connector.
Temperature	• Temperatures outside the device operating temperature range may damage the device and/or reduce its performance. To learn about the device operating temperature range for each SmartMonitor type, see the information in the technical specification.
X-rays/ Röntgen	• Avoid long-term exposure to X-rays/Röntgen (risk of damaging the device).

Subject to change. Please note that all information in this document is correct at the time of publication. Due to our policy of continuous product development, we reserve the right to change this information without prior notice.

On the back of the SmartMonitor device is a QR-code, which links the SmartMonitor User Manual.

If more help is needed, contact Berlinger support at support@berlinger.com.

Manufactured by:

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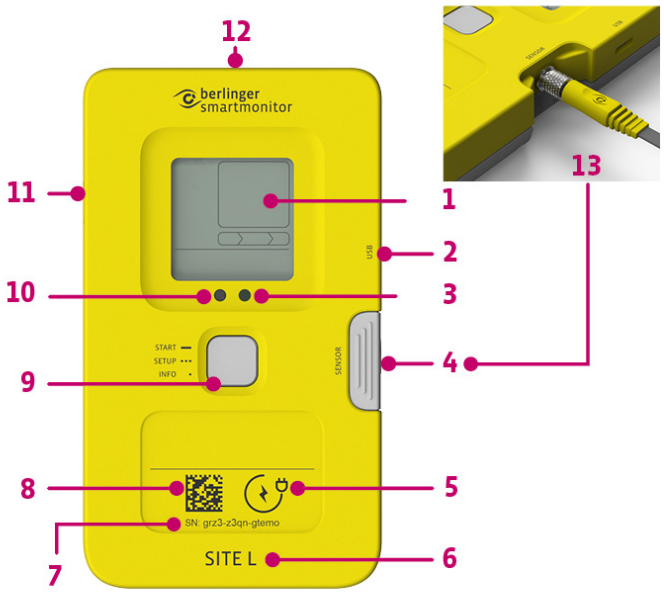
SWITZERLAND

3. Device & display information

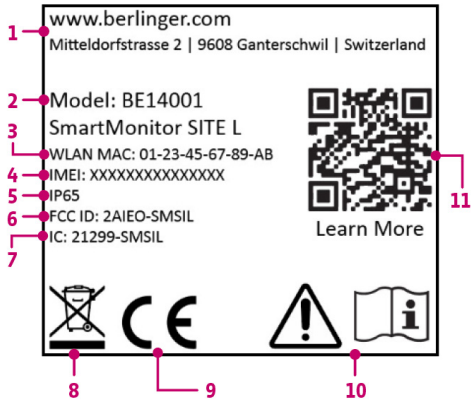
3.1. Device



No.	Name	Description
1	Display	Multi-information display
2	USB-plug	To charge the battery or download the data manually
3	LED	Light signal to support user interaction 1 x short white signal – Always upon button interaction 1 x long green signal – Indication SmartSensor or SmartHub has been successfully connected 1 x long red signal – User indication about status canceling or warning For SITE L only: Continuous blinking red signal – User indication about alarm/warning
4	Removeable cap	Remove for use of external sensor
5	Device use information	Indication for permanent charging (SITE L) Indication for re-useable device (SHIP L) Indication for battery expiry (SHIP M)
6	Device type	SmartMonitor model
7	Serial number	Uniquely identifiable number of the device
8	Barcode	Contains the serial number for read out with barcode scanner
9	Multifunctional	3 x short press – Setup will cause the device to contact the cloud, trying to

	button	synchronize and download the configuration 1 x long press – Start monitoring 1 x short press – Display info scroll – Single button press causes to skip to next information 1 x short press – Mute acoustic alarm (SmartMonitor SITE L only)
10	Light sensor	Monitors light events
11	Humidity sensor	Monitors humidity
12	Centered hook	Mounting option
13	Sensor socket (M5)	M5 connector for external sensor

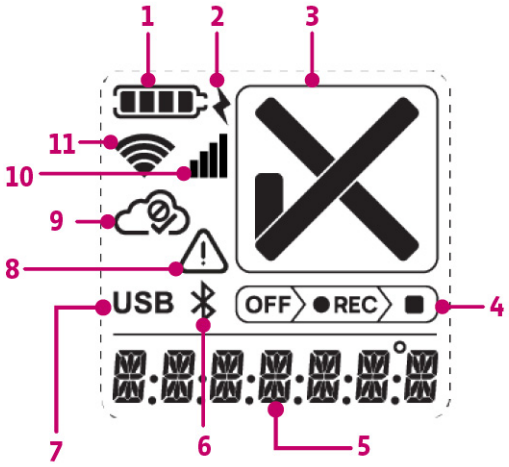
Backside label of the device:



No.	Name	Description
1	Contact	Berlinger contact details.
2	Model	Model under which SmartMonitor is registered with approval authorities.
3	WLAN MAC (only SITE L)	Unique identifier to connect the SmartMonitor to local WiFi.
4	IMEI (only SITE L)	Unique identifier to connect the SmartMonitor to local WiFi.
5	IP65	Protected from dust ingress. Protected from water spray from any direction.
6	FCC ID	Unique identifier assigned to the device registered with the United States Federal Communications Commission.
7	IC	Unique identifier assigned to the device registered with Industry Canada.
8	Waste electrical	Do not put in general waste. Contact Berlinger for recycling and refurbishment services. More information in chapter DISPOSAL.

9	CE (conformité européenne)	Means that the SmartMonitor meets the European health, safety and environmental protection standards.
10	General warning	See warnings in chapter WARNINGS.
11	“Learn more” QR code	More information about SmartMonitor by scanning the QR code.

3.2. Display



No.	Name	Description
1	Battery status	Indicates the battery status
2	Battery charging	Lightning icon indicates whether external power has been connected
3	Alarm status	✓ Device indicates that there is no temperature and/or humidity alarm violation on the device and/or on the external sensor ✕ Device indicates that there is one or more temperature and/or humidity alarm violation on the device and/or on the external sensor
4	Measurement status	**OFF** SmartMonitor is ready to start – The device is not measuring yet ● **REC** SmartMonitor is measuring ■ SmartMonitor has stopped
5	7-digit text field	Static or scrolling text to support user. On home screen, the text field displays the current temperature. On single button interaction, additional info is displayed
6	Bluetooth	Indicates that manual configuration upload or data readout via Bluetooth is required
7	USB	Indicates that manual configuration upload or data readout via USB is required
8	Warning symbol	Warning that device needs attention
9	Cloud status	Upload successful Upload not successful
10	Cellular connection	Connected to cellular
11	WiFi Connection	Connected to WiFi

4. Device configuration

The configuration parameters for SmartMonitor devices are defined via **SmartView**. (Please see SmartView User Manual and SmartView Login Page).

The relevant configuration is applied to the shipment/site/sector or directly to the device in SmartView.

Once the allocation in SmartView has been completed, the device is ready for set up.

When performing the SmartMonitor setup, the configuration will be automatically downloaded to the device via cloud synchronization with SmartView. If the cloud cannot be reached upon setup, manual configuration via USB is required. The configuration file must always be generated via SmartView to ensure a single source of truth.

Learn how to set up the configuration policy in SmartView and apply it to your SmartMonitor device.

If you would like to configure the device before starting to monitor in order to verify the configuration policy ID and/or shipment/sector name triple push the multifunctional button in quick succession. This will initiate cloud synchronization to download the configuration. Otherwise, cloud synchronization and download of configuration will take place on cloud synchronization interval, when connective is available.

Startable configuration

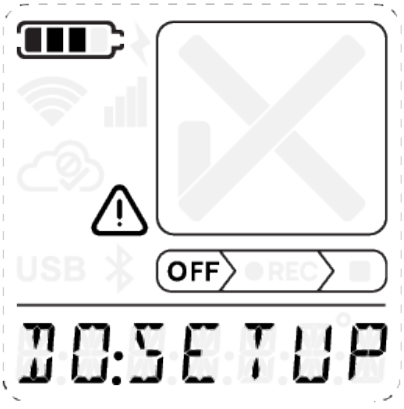
Startable configuration can be defined in SmartView.

When the function is disabled, the SmartMonitor can be started anytime and the associated shipment/sector configuration policy becomes effective upon the first successful synchronization.

Next step: Configure your device

SmartMonitor start prevention

Prevent the start of SmartMonitor until assigning and downloading of another, startable configuration policy in SmartView.
When the function is enabled, the SmartMonitor cannot be started by pushing the multifunctional button.

	If a start prevention is defined in SmartView, the SmartMonitor displays “**PERFORM SETUP**” and “**DO:SETUP**” (as static information) on the screen. The device configuration is required.

After completing the setup in SmartView, a **triple push of the multifunctional button** is required to synchronize configuration policy. After successful synchronization, the SmartMonitor can be started.

> ! Do not enable on configuration policies intended for shipments or sectors.

5. How to configure your device

To configure the SmartMonitor device with the desired configuration (see user manual **SmartView** for instructions), wake up the device from sleep mode with a short press of the multifunction button and then triple push in quick succession. This will initiate cloud synchronization to download the configuration.

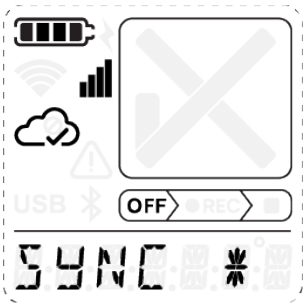
> If automatic configuration fails, manual configuration is required. For SmartMonitor SITE L, configuration via WiFi connection is possible.

Automatic configuration

3 times short press the multifunctional button

> **Do not apply force as it will damage the multifunctional button.**

Nr.	Screen	Description
1		The configuration is initiated.
2		All display symbols are loaded.

3		The connection to SmartView is established. The tick ( ) in the cloud symbol is blinking, the cellular symbol ( ) is static. The configuration is downloading. The cloud symbol ( ) is blinking.
4		The configuration is successfully downloaded to the device. The cloud ( ) and cellular ( ) or WiFi ( ) symbols are static. The LED is lighting up green, with the scroll text **CONFIG OK**. ! A short press of the multifunction button displays the correct configuration name. ! If the name of the configuration is not showing up on the display, manual configuration is required.

The device is now ready to be started. Continue with placing your device.

Manual configuration

If the display indicates this information, automatic configuration was not successful. Follow the manual configuration steps below.

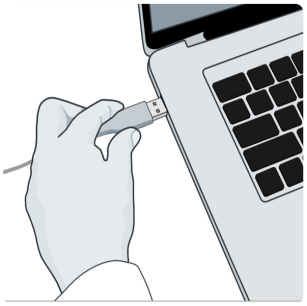
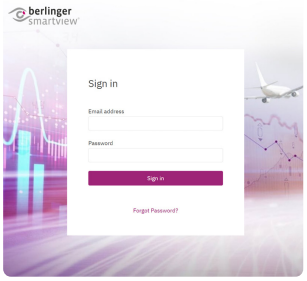
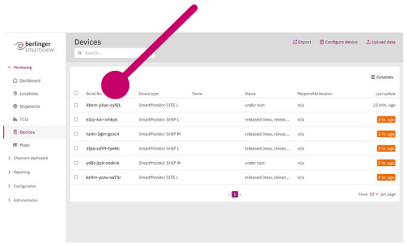
Device indication that manual download for configuration is required.

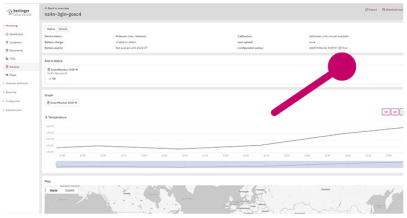
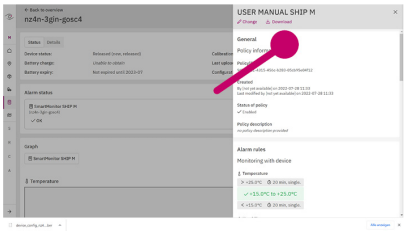
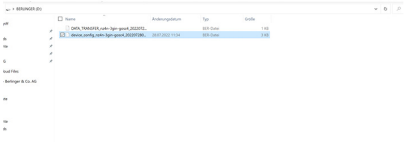
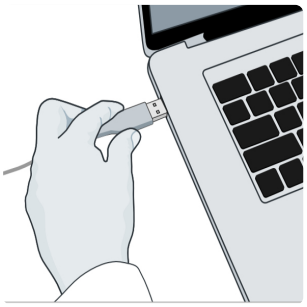
Manual configuration

If the device is not able to establish connectivity with SmartView to download configuration, it is required to manually upload the configuration file to the device via USB. In a next step, connect the device to your computer and wait for the device to appear in the explorer of your computer. In a next step, add the configuration file manually to the SmartMonitor.

> Go the SmartView manual to find out how to download the configuration file to your computer.

Step	Screen	Description

1		Plug in a USB-C cable at the right-hand side of the SmartMonitor device.
2		Connect the other end of the cable via the USB port with your computer.
3		When connecting the SmartMonitor to your computer, a pop-up window of SmartMonitor (**BERLINGER**) will appear. If the pop up window does not appear, locate the BERLINGER USB-Drive on your computer and open it.
4		Log into SmartView with your credentials. In SmartView, navigate to “Devices” under the section “Monitoring”. In the search function, type in the serial number of the device that you would like to configure. It is printed on the front of the SmartMonitor.
5		Click on the serial number to open the device page.

6		Click the “More” button under “Status” next to the **configuration policy**.
7		Select “Download”. The configuration policy file has been downloaded to your computer and can be found in the Download folder.
8		Save the device configuration file in the BERLINGER USB Drive.
9		Disconnect the SmartMonitor from your computer.
10		To check if the download has been successfully completed, short press the multifunction button. The scroll text should display the correct configuration name. The device is now ready to be started. ! If the download was not successful, the display of the SmartMonitor indicates CONFIG NAME, but not the actual name that was given in SmartView.

If more help is needed with configuring your device, contact Berlinger support at support@berlinger.com

Next step: Place your device

6. How to place your device

How to place the SmartMonitor at:

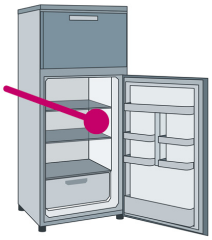
- a site
- for a shipment

> ! Please note that all SmartMonitor SHIP devices are dedicated for shipment monitoring, whereas the SmartMonitor SITE L is dedicated for site monitoring.

Ensure the SmartMonitor is securely installed and cannot fall.
The SmartMonitor can be fixed with:

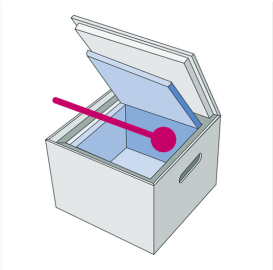
- Velcro tape on the back of the SmartMonitor device
- Cable tie via the centered hook
- SmartCradle

6.1. Site

Step	Picture	Description
1		Place the device inside the refrigerator/freezer and wait for it to acclimatize.

Continue with start your device.

6.2. Shipment

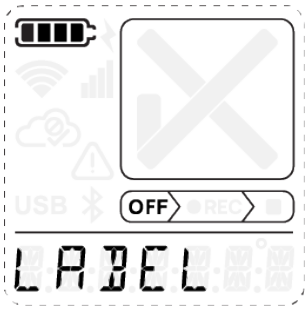
Step	Picture	Description
1		Place the device inside the temperature-controlled box/container and wait for it to acclimatize.
2		Use the mounting option on the back of the SmartMonitor or attach the Velcro tape to the designated area to place the device securely.

> ! Start the SmartMonitor before closing the box.

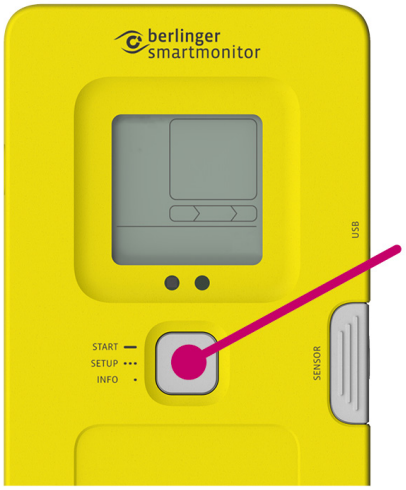
Next step: start your device.

7. Device info before monitoring start

To scroll through available device info, single-push the multifunctional button. Skip scroll text items with button short press.

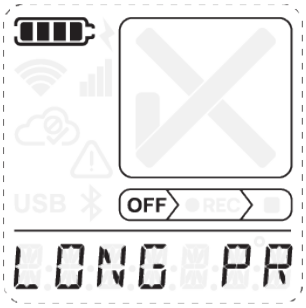
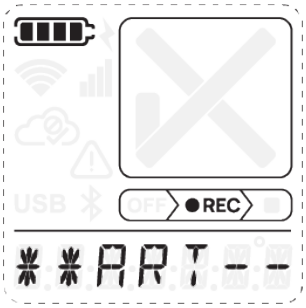
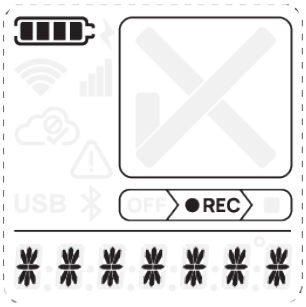
Step	Screen	Description
1		The name of the configuration defined in SmartView is displayed.
2		The defined label name (e.g., Airway Bill, Refrigerator/Freezer ID, etc.) from SmartView is displayed on the screen.

8. How to start monitoring



Press and hold the multifunctional button

! To start monitoring, press and hold the multifunctional button for longer than **3 seconds** until the letters are replaced with stars (“*******”).

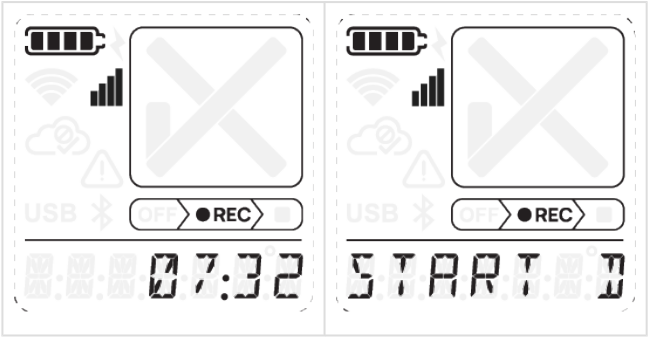
Nr.	Screen	Description
1		Upon device interaction, the device will indicate to the user that long-press of the multifunctional button is required for start. ! If long-press released too early, during the start process, this screen will be displayed as well and the LED lights up red.
2		Upon long-press device interaction, the start screen will be loaded.
3		Hold the button until the letters are replaced with stars (“*******”) from left to right and the LED signal has blinked white once.

4		If no start delay is configured, in case of a successful start, record sign (● REC) will be on and tick* (✓) will be displayed. The 7-digit text field will display the temperature.

Check here for WARNINGS on device start.

Start delay

> ✻ If a start delay is configured, the device starts with alarming only after start delay countdown. The remaining countdown is indicated on the display in days:hours:minutes format (if >24h: DDd:HH:MM, if <24h: HH:MM).



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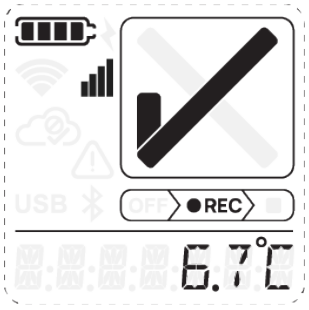
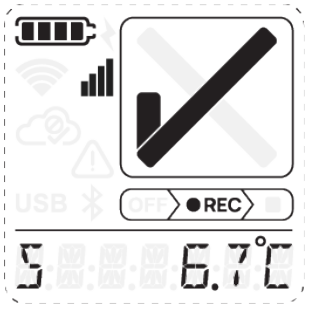
* The tick can be hidden by disabling the alarm status function in the configuration policy in SmartView. In this case, the field remains empty.

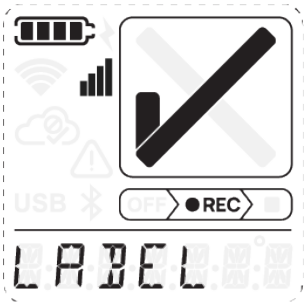
9. Running device

9.1. Device info when device is running

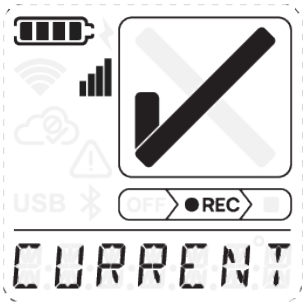
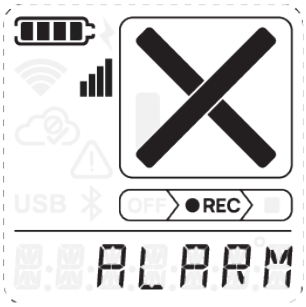
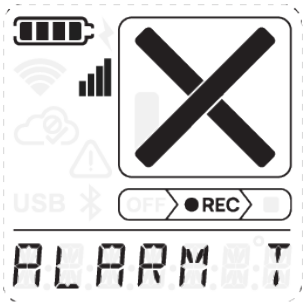
Single-push the multifunctional button.

To scroll through available device info, single push the multifunctional button. Skip scroll text items with a button short press.

Nr.	Screen	Description
1a		Home Screen: The current temperature is displayed on the screen.
1b		**With external sensor** If an external sensor is successfully set up and connected, the Home Screen displays the current temperature of the external sensor. To check the temperature of the SmartMonitor device (internal sensor), go to SmartView.
2		The name of the configuration defined in SmartView is displayed.

3		The defined label name (e.g., Airway Bill, Refrigerator/Freezer ID, etc.) from SmartView is displayed on the screen.
4		With a long press of the multifunction button, the device can be stopped.

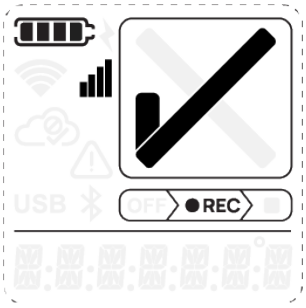
9.2. Device alarm while running

No.	Screen	Description
1		✓ Device indicates that there is no temperature and/or humidity alarm violations on the device and/or on the external sensor
2		✕ Device indicates that there is one or more temperature and/or humidity alarm violations on the device and/or on the external sensor
3		Infinite scroll on alarm source. SmartMonitor vs. SmartSensor Temperature vs. Humidity Cloud
4		To enter device info, single button-press.

Check for further warnings in the chapter WARNING.

9.3. Cloud sync while running

Upon Cloud synchronization, the following screens are displayed.

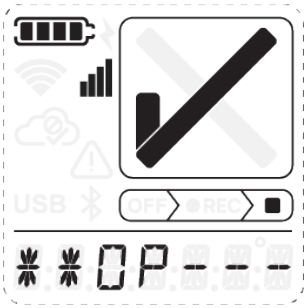
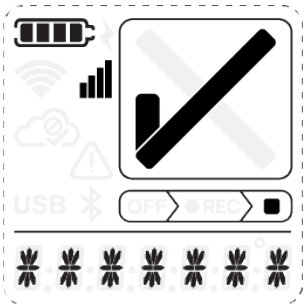
No.	Screen	Description
1		Cloud tick (☁) is blinking while syncing.
2		**With connectivity:** Static cloud tick (☁) display after sync success.
3		The cloud icon disappears after 30 seconds.
4		**Without syncing:** Static cloud sync fail display until the next successful sync.

9.4. Manual read out while running

Follow the instructions on manual read out to retrieve data manually while the device is running.

10. How to stop monitoring

To stop the device, long-press the multifunctional button.

No.	Screen	Description
1		Upon device interaction, the device will indicate to the user that a long-press of the multifunctional button is required for stop. ! If long-press is released too early during the stop process, the same screen will be displayed and the LED lights up red.
2		Upon long-press device interaction, the stop screen will be loaded.
3		Hold the button until the letters are replaced with stars (“*******”) from left to right and the LED signal has blinked once. The stop icon indicates that the device has been successfully stopped.

Automated read out

No.	Screen	Description

1		Establishing connection to SmartView. Cellular or WiFi symbol is blinking.
2		All data has been uploaded to the cloud.

Manual read out

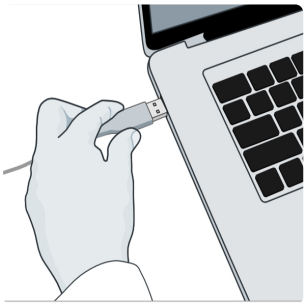
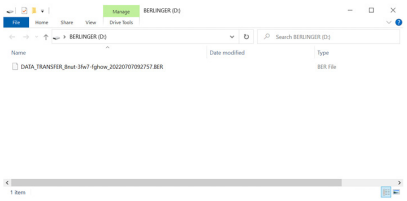
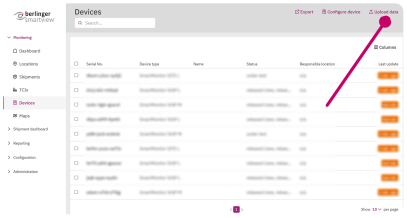
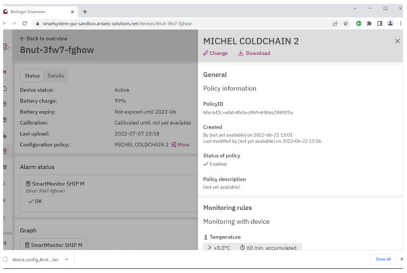
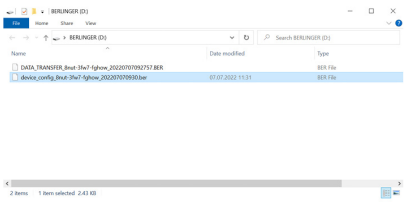
If the device is not able to establish connectivity with SmartView to upload monitoring data, it is required to manually upload the data to SmartView via USB. In the next step, connect the device to your computer and wait for the device to appear in your driver. In the next step, download the data file manually to the computer.

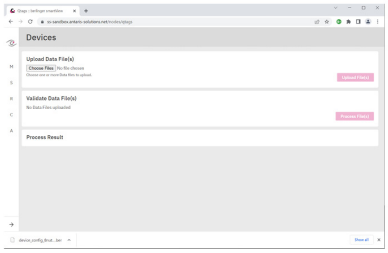
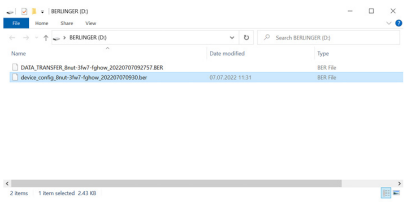
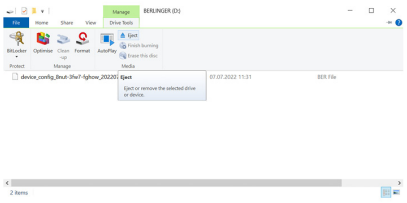
Device indicates that manual transfer of monitoring data to SmartView is required.

Review SmartView manual to find out how to upload the monitoring data to SmartView.

Manual read out

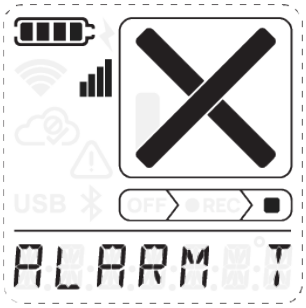
Step	Screen	Description
1		Connect a USB-C cable to SmartMonitor.

2		Connect USB cable with computer. The SmartMonitor display indicates **UPDATE** if successfully connected.
3		When connecting the SmartMonitor to the computer a pop-up window of SmartMonitor (BERLINGER) will appear. If the pop-up window does not appear, locate the BERLINGER USB Drive on your computer and open it.
4		Log into SmartView and locate the “Data upload” functionality under the tab “Monitoring”, “Devices”. Choose “Data upload” on the top right corner.
5		Click “Choose Files and select the files displayed in the BERLINGER USB-Drive.
6		Click “Choose Files and select the files displayed in the BERLINGER USB-Drive.

7		Once the files have been added select “Upload File(s)”.Check Process Result to see if your files have been successfully uploaded.
8		Check Process Result to see if your files have been successfully uploaded.
9		When the upload has been successfully completed, the display of the SmartMonitor indicates “DONE”.
10		Disconnect the SmartMonitor from your computer.

Status when stopped

No.	Screen	Description

1		✓ Device indicates that no alarm violation took place during the entire monitoring period.
2		✕ Device indicates that alarm violation took place during the monitoring period.
3		Infinite scroll on alarm source. SmartMonitor vs. SmartSensor Temperature vs. Humidity Cloud

How to wipe your device

(For SmartMonitor SHIP M only)

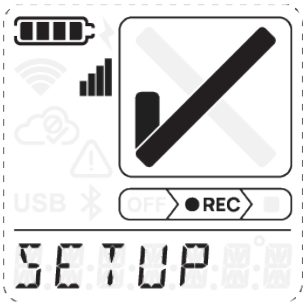
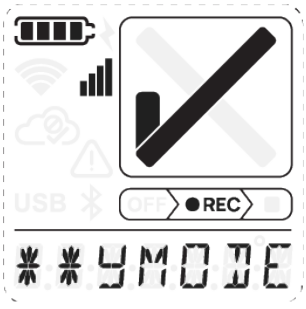
11. Additional functionalities

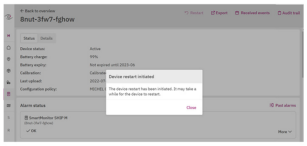
11.1. Manual flight mode

Once the device is started, the device can be put in ‘manual flight mode’.

> During ‘manual flight mode’, RF emission exceeding what is allowed on aircraft, is suspended until the ‘manual flight mode’ is disabled. The device stores the manual flight mode state in non-volatile memory to ensure that the mode stays enabled even when the device unexpectedly resets. During active ‘manual flight mode’, any results from ‘automatic flight mode’ are ignored e.g., even if automatic flight mode determines that the device is not in flight, the radios remain suspended.

Activate the flight mode with the following steps (the process to deactivate the flight mode is the same):

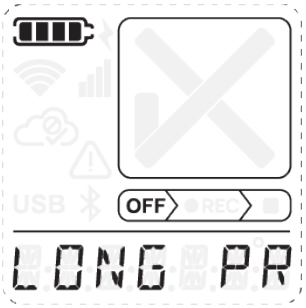
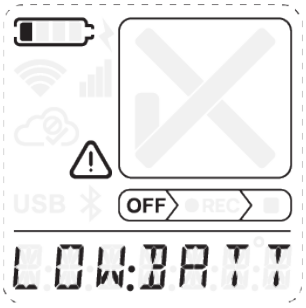
No.	Screen	Description
1		Triple push the multifunctional button to get into the “Flight Mode Menu”.
2		“ACTIVATE FLIGHT MODE” will appear on the screen. Long press the multifunctional button to select this option.
3		The FLYMODE screen is loading up confirmation.
4		Static FLYMODE screen indicates the Flight mode is on.

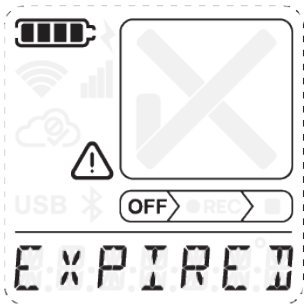
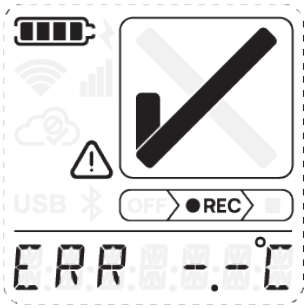
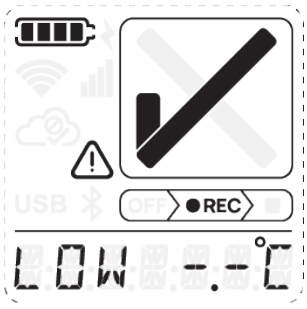
5		Confirmation that the restart of the SmartMonitor device has been initiated.
6		To initiate the restart on the SmartMonitor, triple-push the multifunctional button.

12. Warning

- Display warnings

12.1. Display warnings

Category	Problem	Effect	Solution
Low battery	Blank display	No information visible	Connect the device to USB charger to charge the battery.
General		**SMARTMONITOR ERROR** ERROR is shown on the display, the exclamation mark ⚠ is blinking and the LED lights up red. The device self-test was unsunccessful.	Contact support@berlinger.com for support.
Device start		Device cannot be started Display shows LONG PRESS and the LED lights up red.	Press the multifunctional button for at least 5 seconds.
Device start		**LOW BATTERY** LOW:BATT is shown on the display, the battery symbol is blinking and the LED lights up red. The device charge is too low to start the device.	Connect the device to power to charge the battery.
Device start		**BATTERY EXPIRED** BAT:EXPIRED will be shown on the display and the battery symbol is blinking. Exclamation mark ⚠ is blinking. The LED lights up red. The battery expiry date is reached. The device can no longer be started as Berlinger cannot guarantee battery performance according to technical specification.	Use an alternative device for your shipment. Reach out to Berlinger for return of the device with expired battery for recycling.

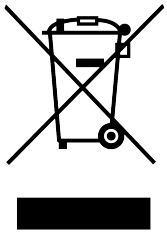
Device start		**CALIBRATION EXPIRED** Scroll “CALIBRATION EXPIRED” + “EXPIRED” Static and the exclamation mark ⚠ is blinking. The LED lights up red. The calibration expiry date set by the customer in SmartView is reached. The device can no longer be started.	Recalibrate the device and update in SmartView accordingly.
Running device	 	**ERR-.-°C** will be shown on the display and the exclamation mark ⚠ is blinking. The measured temperature is out of the specified device temperature measurement range (TBC) of the SmartMonitor device. Single press the multifunctional button to indicate information on the error type. **“HI”, “LOW” and -.-°C** will be shown on the display and the exclamation mark ⚠ is blinking. The display indicates whether the measured temperature is too high or too low.	Check the technical specification for the device measurement temperature range and ensure that the device is not exposed to temperatures outside of this range.

On the back of the device is a 3D-code, which links to a page, where more information about the device is available.
If more help is needed, contact Berlinger support at support@berlinger.com

13. Disposal

Electronic devices are recyclable and do not belong in household waste. At the end of its lifetime, dispose of the product in accordance with the regulation of your country or return it to Berlinger according Berlinger RMA (Return Merchandise Authorization) process.

If more help is needed, contact Berlinger support at support@berlinger.com



14. Certification & Standards

Relevant information can be found in the technical specification

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS and complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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.
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications made to this equipment not expressly approved by Berlinger & Co. AG may void the FCC authorization to operate this 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.

Radiofrequency radiation exposure Information:
This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de

distance entre la source de rayonnement et votre corps.

Ce transmetteur ne doit pas être place au même endroit ou utilise simultanément avec un autre transmetteur ou antenne.

Regulatory certification

CE

15. FAQ & Glossary

Glossary of Symbols

Symbol	Description
✓	OK symbol
✕	ALARM symbol
OFF	SmartMonitor is ready to start
● REC	SmartMonitor is measuring
■	SmartMonitor has stopped
	Cloud status: Upload successful
	Cloud status: Upload not successful
	Connected to cellular
	Connected to WiFi
	Acoustic Alarm

! The warning box includes important information or warnings.

✻ The information box includes helpful information.