

KNT 320 data collector

Data storage and recovery
for KISTOCK 2015 data loggers



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1.1 Precautions for use

Please always use the device in accordance with its intended use and within parameters described in the technical features in order not to compromise the protection ensured by the device.

1.2 Symbols used

For your safety and in order to avoid any damage of the device, please follow the procedure described in this user manual and read carefully the notes preceded by the following symbol:



The following symbol will also be used in this user manual:

Please read carefully the information notes indicated after this symbol.



2 Device presentation

2.1 Use

The **KNT 320** data collector allows to download and store the recorded data from **Kistock 2015** devices in order to download them on a computer. The **KNT 320** also allows to send a new configuration and start an other measurement dataset without using the **Kilog 2015** software.

- Compatible with **Kistock 2015 range devices** (except class 120)
- Up to **20 000 000 points** stored
- Possibility to **send a new configuration** and **start an other measurement dataset**
- **Integrated male USB connector**
- **Fast data transfer** (1 minute maximum)
- **Rechargeable battery** by USB connection on PC

2.2 Device description



Display

“ON/OFF – Selection” key

“OK” key

Unlosabe PC USB connection cap

2.3 Description of keys



OK key: allows to validate functions.



ON/OFF – Selection key: press once to start the device / press for 5 seconds to switch it off.
Press successively to scroll functions.

2.4 Connections

Data collector – Kistock connection



Female USB / male micro-USB adapter, supplied with device
(reference: KNT-A)

Data collector – PC connection



Male USB connector

Unlosable cap

3 Technical features

3.1 Data collector

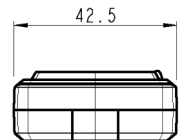
Storage capacity	Up to 20 000 000 points
Speed of data transfer	From the Kistock to the data collector: 400 values/second From the data collector to the PC: 1000 values/second
Operating temperature	From 0 to +50°C
Storage temperature	From -20 to +70°C
Charging temperature	From 0 to +45°C
Autonomy	According to downloading frequency
Compatible software	Kilog 2015

3.2 Housing

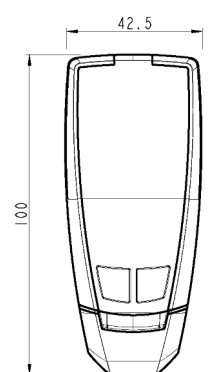
Dimensions	100 x 42.5 x 15.9 mm
Weight	53 g
Display	1 line LCD screen, 128 x 128 pixels Dimensions: 32 x 25.5 mm
Control	1 OK key 1 ON/OFF – Selection key
Material	Compatible with food industry environment ABS housing
Protection	IP65
Communication	Data collector – PC: integrated A male USB connector Data collector – Kistock: female USB / male micro-USB adapter (supplied with the device, reference: KNT-A)
Battery power supply	1 lithium polymer battery Charging time from about 7 minutes (50%) to 2 hours (100%)
Environment	Air and neural gases

Dimensions

Top view



Front view



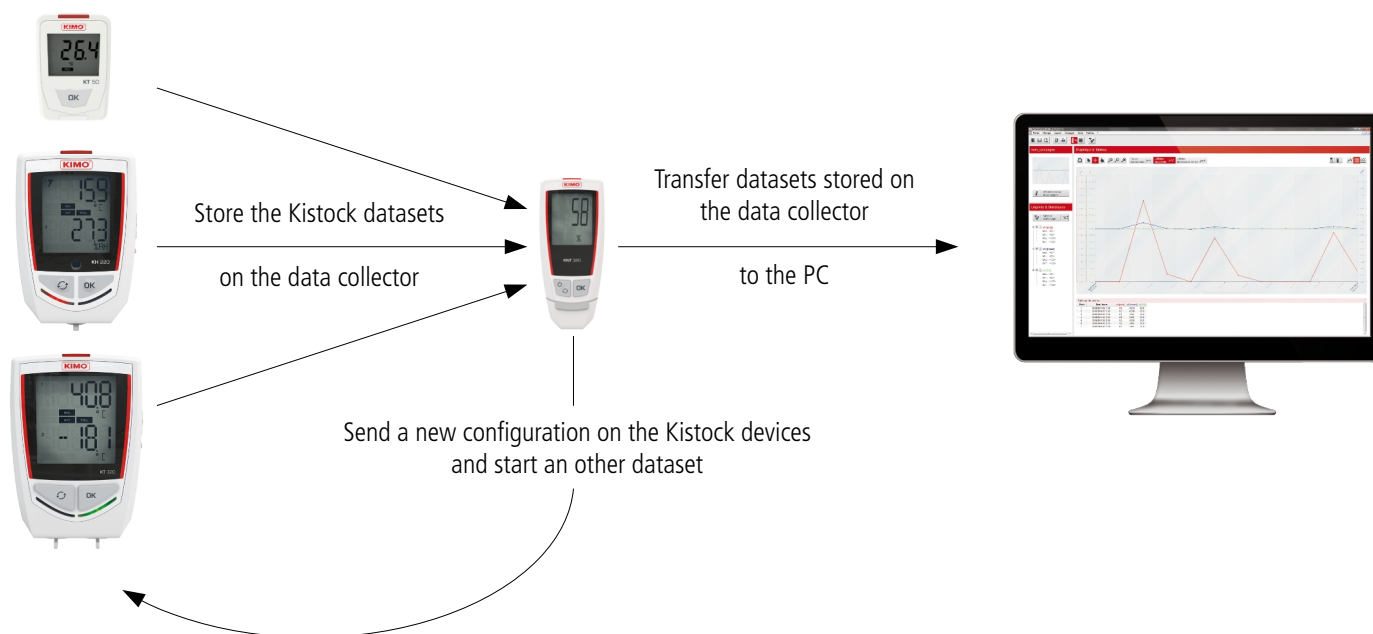
Side view



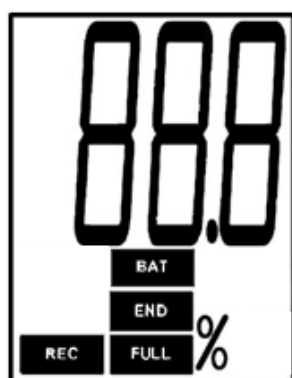
3.3 Guarantee

KNT 320 data collector have 1-year guarantee for any manufacturing defect (return to our After-sales service required).

4.1 Functioning principle



4.2 Display



- REC** When the icon appears: data transfer is in progress
- END** Indicates that the data transfer is done
- FULL** Flashing slowly: data collector reached between 70 and 80% of its storage capacity
Flashing quickly: data collector reached between 80 and 90% of its storage capacity
Constant: data collector reached between 90 and 100% of its storage capacity
- BAT** Constant: indicates that the battery has to be recharged
Flashing: charging battery
Disappears when the battery is charged

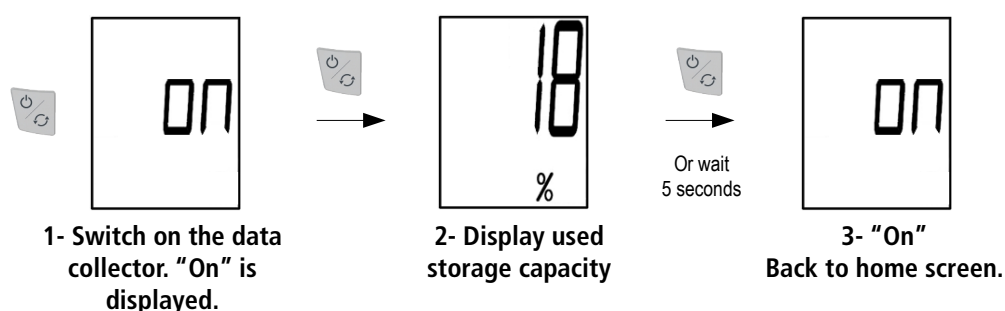
4.3 Switch on/off the data collector

- To switch on the data collector, press key
The data collector switches on: it displays all the digits, then the home screen which indicates "on".
- To switch off the data collector, press key for 5 seconds
The data collector displays "off" and switches off.

4.4 Auto-off

To save battery power, after 5 minutes without activity, the data collector automatically switches off.

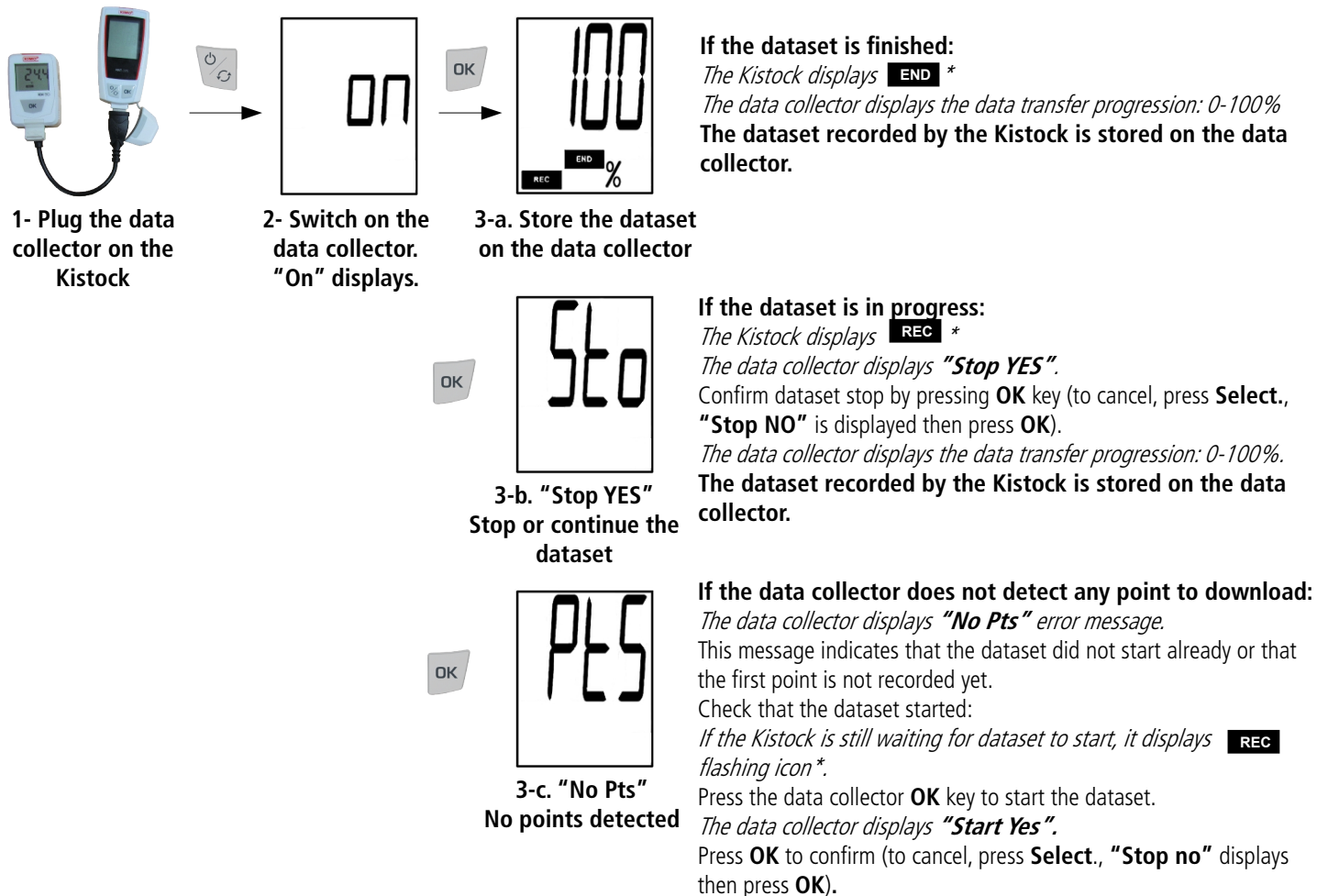
4.5 Display used storage capacity



4.6 Kistock – data collector interface

4.6.1 Download the Kistock data on the data collector

Procedure to download data:



When data are transferred from the Kistock to the data collector, these measurement data are copied. Only the sending of a new configuration with the data collector or the Kilog 2015 software allows to start an other dataset (see procedure described page 9).

4.6.2 Reconfigure the Kistock and start an other measurement dataset

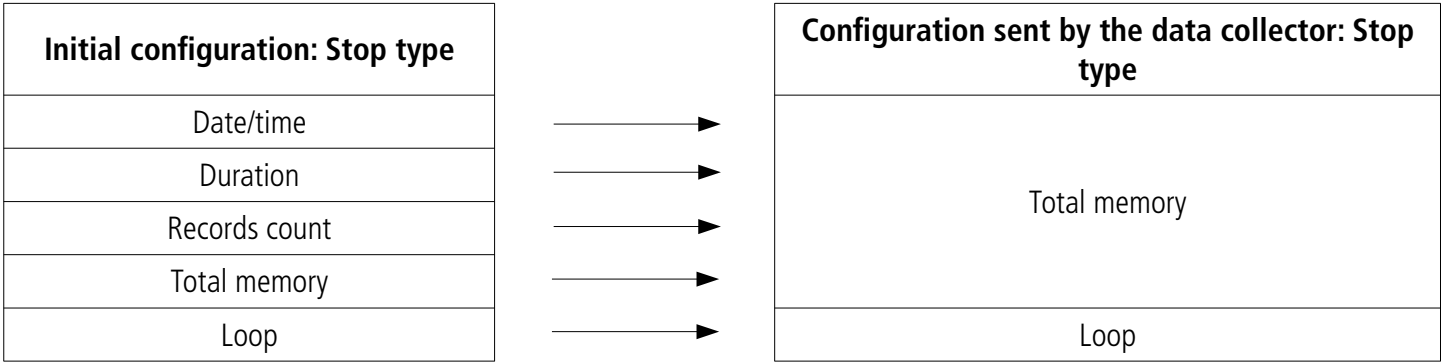
Once the measurement dataset is transferred to the data collector (see the downloading procedure page 7), it is possible to start an other dataset directly from the data collector.

Two recording configurations can be sent:

- **“Loop”**: values are recorded continuously and when the storage capacity is full, the first recorded values are overwritten by the new ones.
- OR
- **“Total memory”**: values are recorded until the storage capacity of the device is reached.



The configuration which is sent depends on the Kistock last configuration

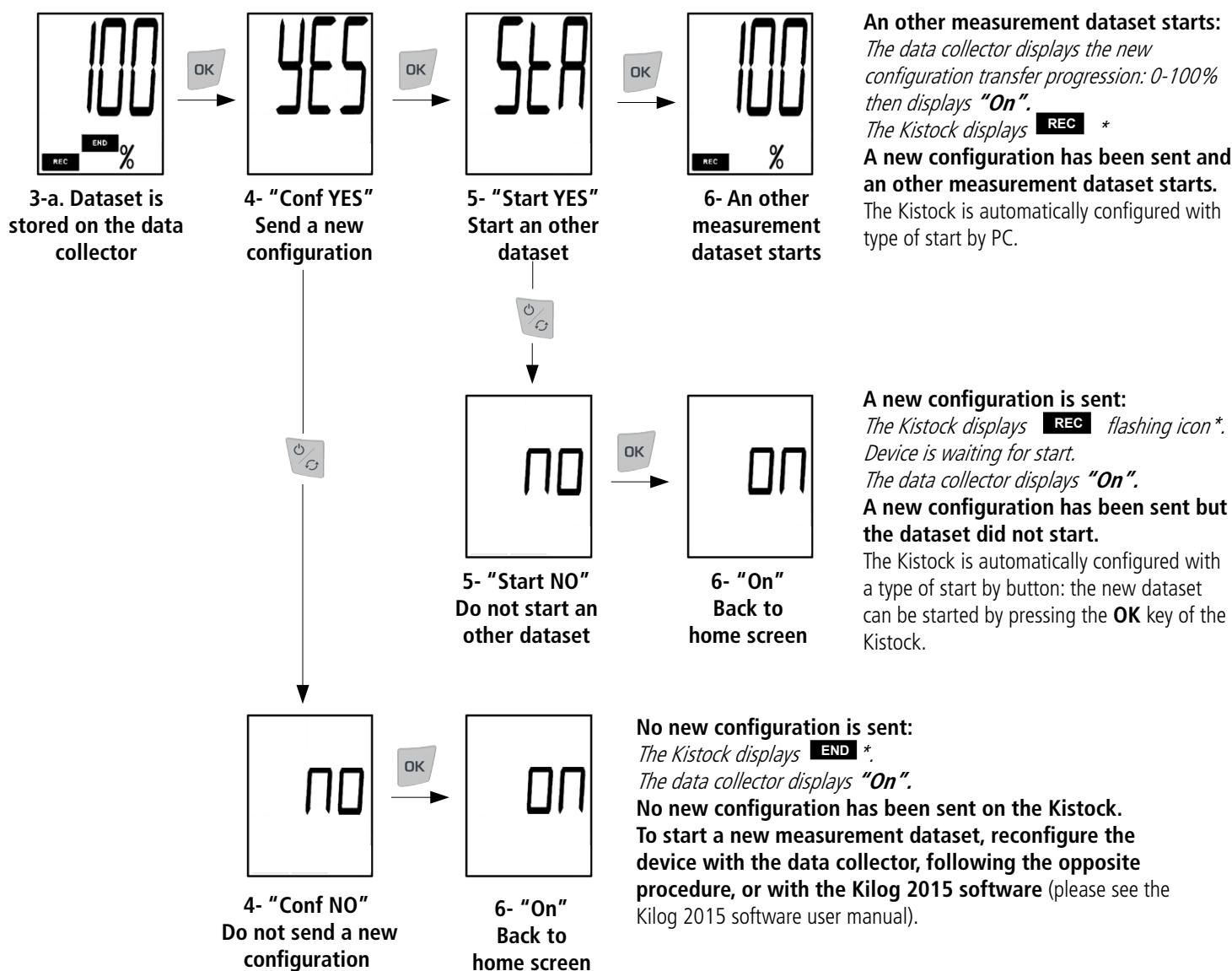


Other configuration parameters (recording intervals, stop by button, etc.) remain unchanged.

 If a configuration different from **“Loop”** or **“Total memory”** recording mode is required, please use the **Kilog 2015** software: for more details about device configuration via software, please see the **Kilog 2015** software user manual.

Procedure to send a new configuration:

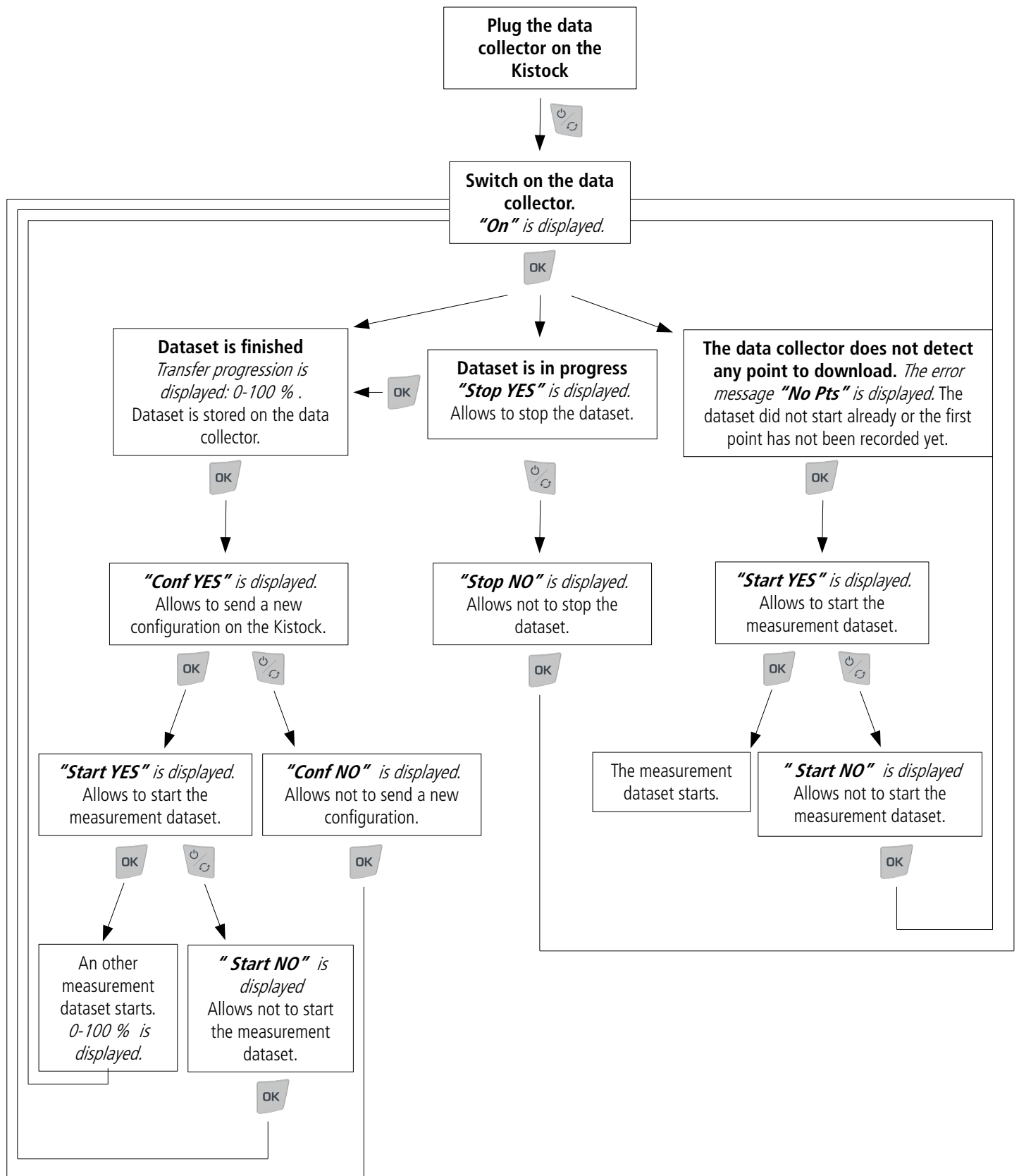
Once the dataset is transferred to the data collector (see downloading procedure described page 7, screens 1 to 3):



 When a new configuration is sent on the Kistock with the data collector, two types of start can be sent: **start by PC** or **start by button**. The type of start which is sent depends on an immediate start or not of the dataset with the data collector.

* only for models with display

4.6.3 Summary of functions



4.7 Data collector – PC interface with Kilog 2015 software

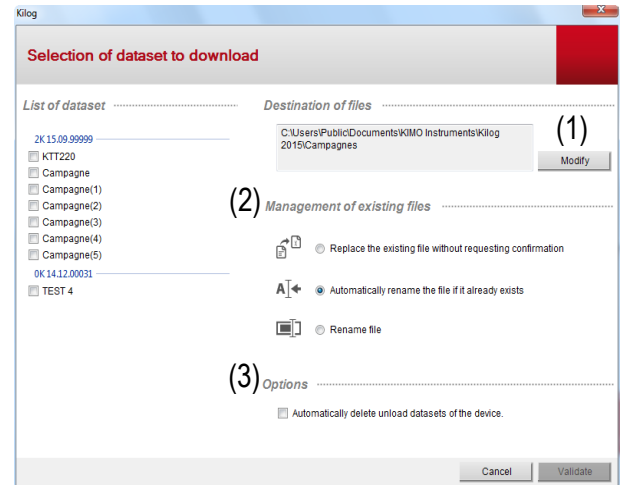
4.7.1 Download data collector on PC

- Plug the data collector on a USB port of the computer.
- Launch the **Kilog 2015** software by double clicking on the  icon.
- Click on **"Download"** button, or go to **"Datalogger"** menu and select **"Downloading"**.

The following window opens.

- Tick the boxes of datasets to transfer.
- If necessary, define the files saving location by clicking on **"Modify"**. (1)
- Select the required option about **"Management of existing files"** (2).
- To delete automatically the datasets which are transferred from the data collector to the computer, tick the corresponding box in **"Options"** (3).
- Click on **"Validate"**.

The measurement datasets are displayed and automatically saved in the defined location.



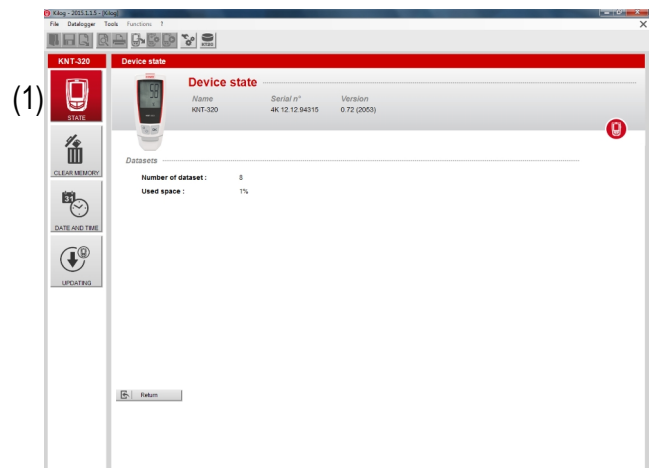
4.7.2 Display data collector state, delete memory and set date and time

- Plug the data collector on a USB port of the computer
- Launch the **Kilog 2015** software by double clicking on the  the icon.
- Click on **"Configure"** button, or go to **"Datalogger"** menu and select **"Configuration"**

*The **"Device state"** (1) window opens.*

The device name, serial number and version number are indicated on the top of the window.

The number of recorded datasets and the used storage capacity are displayed.

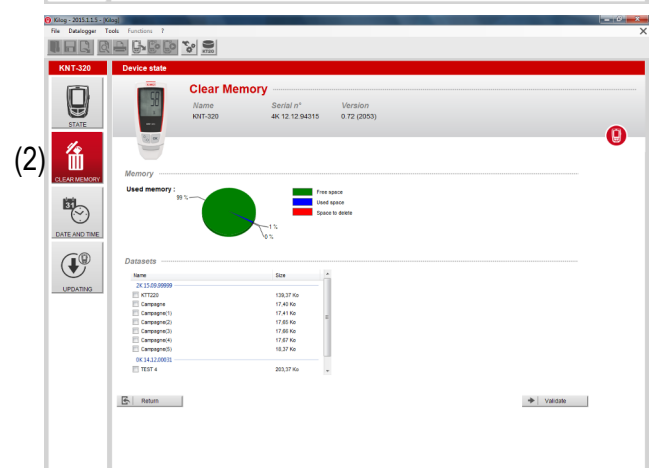


- Click on **"Clear memory"** (2)

A diagram summarises the memory state and a list of the recorded datasets is displayed.

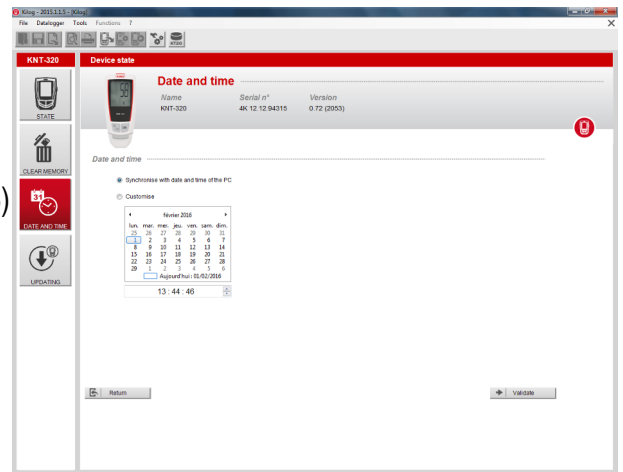
- Select the datasets to delete by ticking the corresponding box then click on **"Validate"**

*A confirmation message is displayed: select **Yes** to confirm or **No** to cancel.*



- Click on **"Date and time"** (3)
- Set a date and time synchronisation with PC or customise them, then click on **"Validate"**.

(3)



4.7.3 Update the data collector

It is possible to update the **KNT 320** data collector by connecting it on the **Kilog 2015** software:

- Click on **"Update"** (4).

- **Carry out an automatic update**

The automatic updating needs an internet connection. It can be protected by a proxy server. In this case:

- Tick the **"Automatic"** box.
- Tick the **"Use a proxy server"** box.
- Choose **"Default proxy"**: the KILOG software uses the proxy parameters of the computer internet connection.

Or

- Choose **"Customised proxy"**: indicate the Proxy address then the user name and password.
- Click on **"Start update"** to start the device updating.

The progress of the updating displays in the progression bar.

A message indicating the updating is finished displays at the end.

- **Carry out a manual update**

- Tick the **"Manual updating"** box.
- Click on **"Browse"** and take the updating file given by the KIMO after-sales service (.zip file type).
- Click on **"Start update"** to start the device updating.

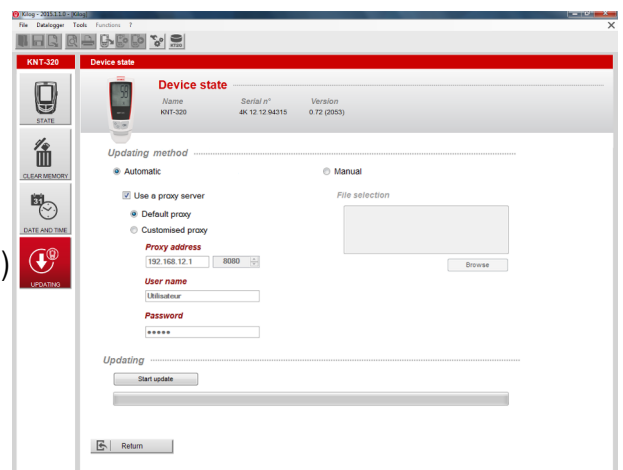
The progress of the updating displays in the progression bar.

A message indicating the updating is finished is displayed at the end.

- **Check the effective updating**

To verify the effective updating, check the version number indicated in the device references of the device state window:

(4)



4.8 Data collector – PC interface without Kilog 2015 software

It is also possible to manage the files of the data collector without using the **Kilog 2015** software.

In this case, the **KNT 320** data collector works as a USB flash drive. It is recognised by the computer as a removable disk with the name "**KNT-320**".

- Plug the data collector on a USB port of the computer.

The following auto-play window opens:



- Click on "**Open folder to view files**".

The folders are organised according to the serial number of the devices used. The sub-folders are settled by dates of the measurement datasets. In these sub-folders are stored the measurement datasets files: they are named as the dataset has been defined.

- Follow the same procedure as with a USB key to rename, copy, transfer or delete files.
- For a data processing, the **Kilog 2015** software is necessary. If the software is installed on your computer, double-click on the required dataset file to open it.

5.1 Recharge the battery

The **KNT 320** data collector power supply is ensured by a rechargeable lithium polymer battery.

When the battery is low, **BAT** icon is displayed.

- To recharge the battery, plug the data collector on a USB port of your PC.

*During the charging time on PC, **BAT** icon is displayed and the data collector displays "USB".*

*When the battery is totally recharged, **BAT** icon disappears.*



Charging time is about 7 minutes to charge 50% of the battery, about 2 hours to recharge it completely.

5.2 Device cleaning

Please avoid any aggressive solvent.

Please protect the device from any cleaning product containing formalin.

6 Accessories

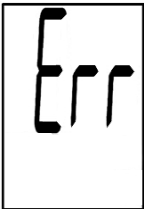
Accessories	References	Illustrations
1 female USB / male micro-USB adapter <i>Supplied with the device</i>	KNT-A	
KILOG 2015 Software The Kilog 2015 configuration and data processing software allows to configure, save and process your data in a very simple way.	<u>Software only:</u> Ref. KILOG-3-N <u>Complete set:</u> software + 1 USB cable, Ref. KIC-3-N	



Only the accessories supplied with the device must be used.

Only the KILOG 2015 software is compatible with the KNT 320 data collector

7 Troubleshooting

Problem	Probable cause and possible solution
 "Err" error message is displayed	The data collector can not communicate with the Kistock: Check that the USB connector is correctly plugged. Once the connection established, press OK to go back to home screen: <i>the data collector displays "On".</i>
 The data collector does not switch on	The battery must be recharged: Plug the data collector on a USB port to recharge it (see § 5.1).



BE CAREFUL! Material damages can happen, so please apply the precautionary measures indicated.

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