DATAMARS R-DT-UHF-CW-KBW-101 All-in-One Stationary UHF Reader User Manual

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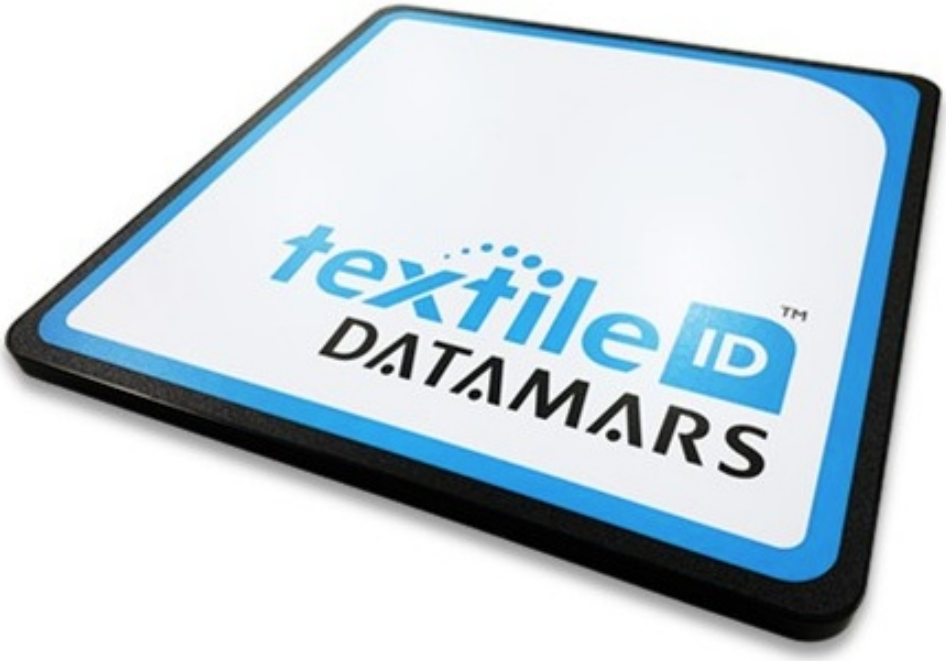
DATAMARS R-DT-UHF-CW-KBW-101 All-in-One Stationary UHF Reader



Introduction

The R-DT-UHF-CW-KBW-101 / R-DT-UHF-CW-RS232-101 is an all-in-one stationary reader that is ideal for light industrial usage. Its integrated antenna makes it a cost-efficient solution to create redundant reading points in the laundry in order, for example, to handle lost textiles or to speed-up tag registration. The reader communicates and is powered through its USB port which makes it particularly easy to install and configure. It is available in two versions, one allows to send data to the terminal in keyboard wedge (HID) and the other in serial mode (COM port) and thanks to several configurable parameters, it is possible to customize the output data string i.e., by cutting the EPC length or adding a prefix to the EPC code as well as being able to set filters on the readings, etc to fit your needs. After the first setup (if needed), the reader is a plug and play reader that can be moved anywhere and connected to any computer to be able to use it to scan your textiles. This guide is intended to describe how to modify the available parameters to better adapt the operation of the reader to your needs/requirements.

Starting up

As already mentioned, the R-DT-USB-CW-KBW-101 / R-DT-UHF-CW-RS232-101 is a plug and play reader that can be moved anywhere and connected to any computer to be able to use it to scan textiles.

To prepare it, follow the below steps:

1. Remove the reader from the box;
2. Take the USB cable;
3. Connect the USB cable to the reader;
4. Place the metal plate to secure the cable;

5. Fix the metal plate with the two screws.

6. Place the reader on a non-metallic desk/table and if needed secure it using the mounting brackets included into the box.

Adjustable parameters

R-DT-USB-CW-KBW-101
The adjustable parameters are the following:

Glossary:

1. **Mode:** allows to select the operating mode.
    - 1 = USB HID keyboard wedge
    - 3 = BT HID keyboard wedge
2. **Power:** set the transmission power from 5 to 30dB.
3. **Buzzer:** enable or disable the buzzer.
4. **PC:** allows to include the PC into the data string.
5. **RSSI:** allows to include the RSSI value into the data string.
6. **Pointer:** when the EPC length is other than 0, allows to specify where the EPC string starts from.
7. **Length:** allows to specify the EPC length. The minimum granularity is two hexadecimal characters. i.e., if set to 1, the output string will be 2 hex characters.
8. **Filter:** allows to discard multiple readings of the same EPC.

9. **Timeout:** value for the the filter, specified in milliseconds.
10. **Frequency:** if needed, allows to define a single transmission frequency, specified in kHz.
11. **Area:** Not available.
12. **New_line:** allows to append a new line character to the output string
    - a. 0 = None
    - b. 1 = LF
    - c. 1 = LF+CR
13. **Prefix:** allows to specify a prefix for the tag data string.
14. **Suffix:** allows to specify a suffix for the tag data string.
15. **Output_speed:** Not available.
16. **EPC_format:** allows to specify the format of the output string for BT HID connection (lowercase or uppercase).

Examples:

R-DT-USB-CW-RS232-101
The adjustable parameters are the following:

Glossary:

1. **Mode:** defines the operating mode -> 4 = serial communication (Virtual COM)
2. **Power:** set the transmission power from 5 to 30dB.
3. **Buzzer:** enable or disable the buzzer.
4. **PC:** allows to include the PC into the data string.
5. **RSSI:** allows to include the RSSI value into the data string.
6. **Pointer:** when the EPC length is other than 0, allows to specify where the EPC string starts from.
7. **Length:** allows to specify the EPC length. The minimum granularity is two hexadecimal characters. i.e., if set to 1, the output string will be 2 hex characters.
8. **Filter:** allows to discard multiple readings of the same EPC.
9. **Timeout:** value for the the filter, specified in milliseconds.
10. **Frequency:** if needed, allows to define a single transmission frequency, specified in kHz.
11. **Area:** Not available.
12. **New_line:** allows to append a new line character to the output string
    - 0 = None
    - 1 = LF
    - 1 = LF+CR
13. **Prefix:** allows to specify a prefix for the tag data string.
14. **Suffix:** allows to specify a suffix for the tag data string.
15. **Output_speed:** Not available.
16. **EPC_format:** Not available

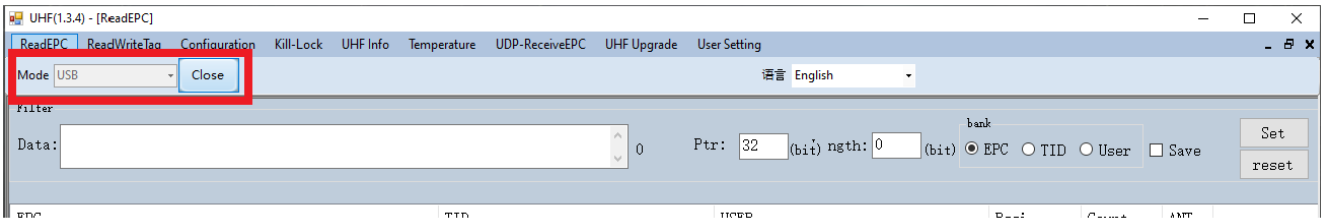
Examples:

Ho to configure the parameters

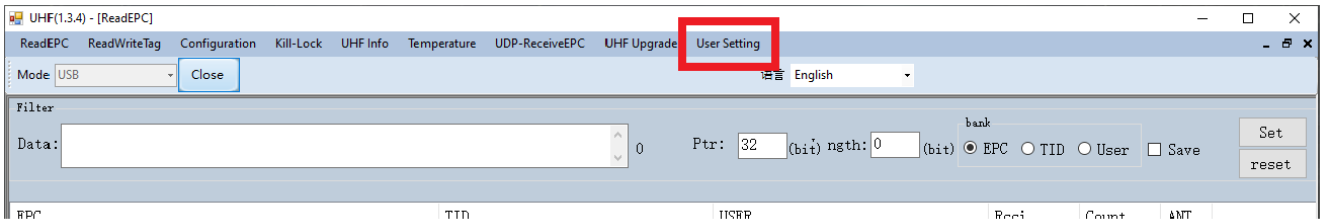
R-DT-USB-CW-KBW-101

To adjust the desired parameters, follow the below example made with the “buzzer” parameter:

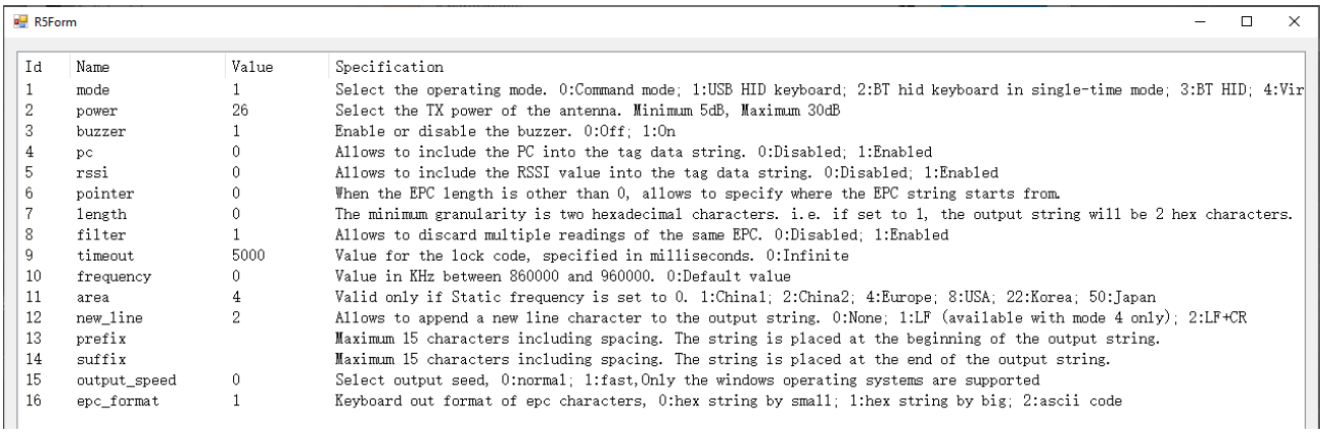
1. Unzip the “R-DT-UHF-CW-KBW-101-ConfigTool” folder on your desktop.
2. Keep all the documents inside the same folder.
3. Launch the “UHFapp.exe”.
4. In the top left corner select “USB” and click on “open”.



5. Click on “User Settings”.

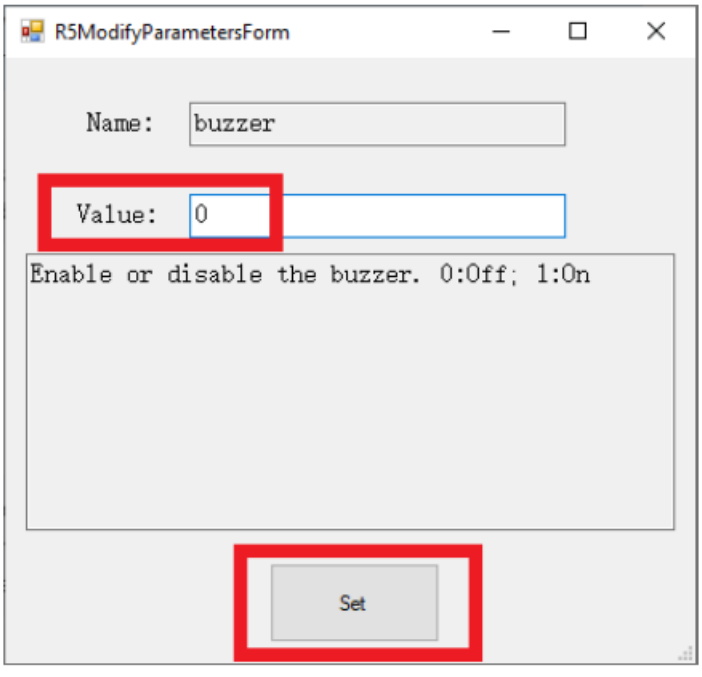


6. A new window with the parameters will pop up. Double click on the parameter you want to adjust.

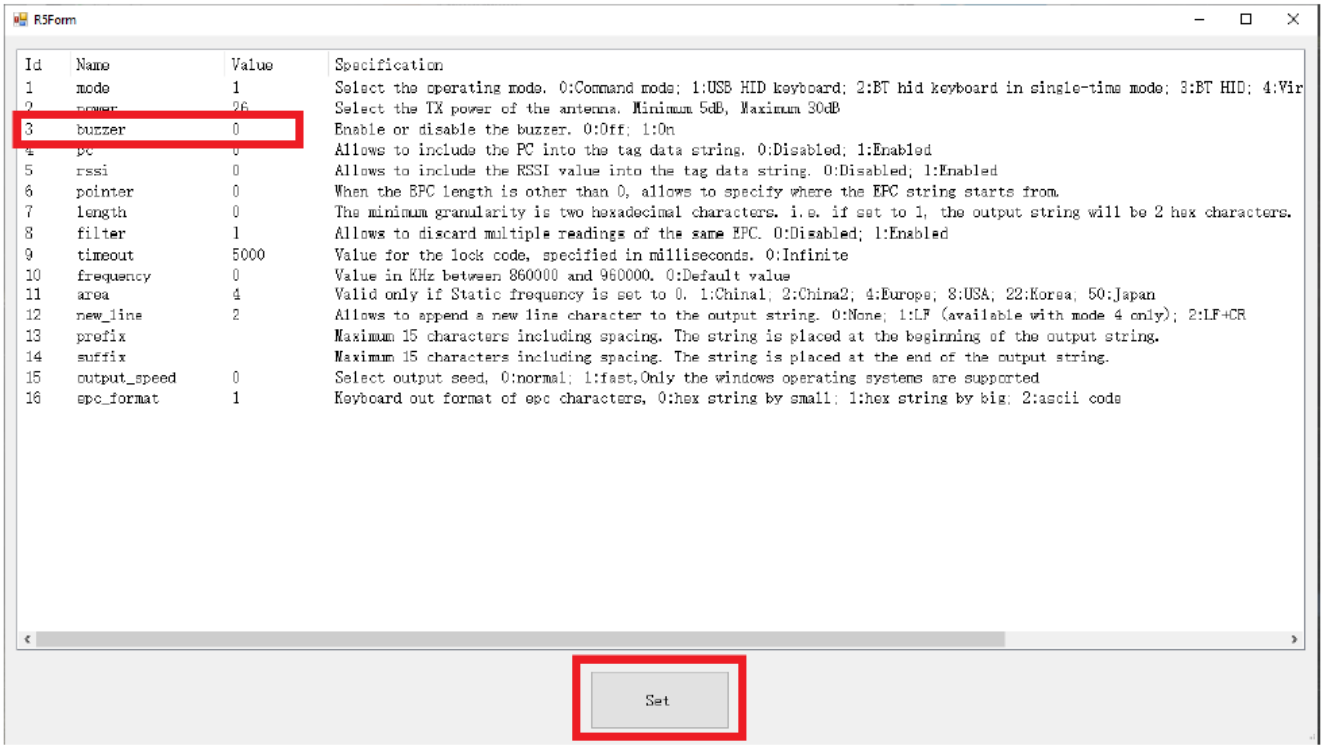


Id	Name	Value	Specification
1	mode	1	Select the operating mode. 0:Command mode; 1:USB HID keyboard; 2:BT hid keyboard in single-time mode; 3:BT HID; 4:Vir
2	power	26	Select the TX power of the antenna. Minimum 5dB, Maximum 30dB
3	buzzer	1	Enable or disable the buzzer. 0:Off; 1:On
4	pc	0	Allows to include the PC into the tag data string. 0:Disabled; 1:Enabled
5	rssi	0	Allows to include the RSSI value into the tag data string. 0:Disabled; 1:Enabled
6	pointer	0	When the EPC length is other than 0, allows to specify where the EPC string starts from.
7	length	0	The minimum granularity is two hexadecimal characters. i.e. if set to 1, the output string will be 2 hex characters.
8	filter	1	Allows to discard multiple readings of the same EPC. 0:Disabled; 1:Enabled
9	timeout	5000	Value for the lock code, specified in milliseconds. 0:Infinite
10	frequency	0	Value in KHz between 860000 and 960000. 0:Default value
11	area	4	Valid only if Static frequency is set to 0. 1:China1; 2:China2; 4:Europe; 8:USA; 22:Korea; 50:Japan
12	new_line	2	Allows to append a new line character to the output string. 0:None; 1:LF (available with mode 4 only); 2:LF+CR
13	prefix		Maximum 15 characters including spacing. The string is placed at the beginning of the output string.
14	suffix		Maximum 15 characters including spacing. The string is placed at the end of the output string.
15	output_speed	0	Select output seed, 0:normal; 1:fast,Only the windows operating systems are supported
16	epc_format	1	Keyboard out format of epc characters, 0:hex string by small; 1:hex string by big; 2:ascii code

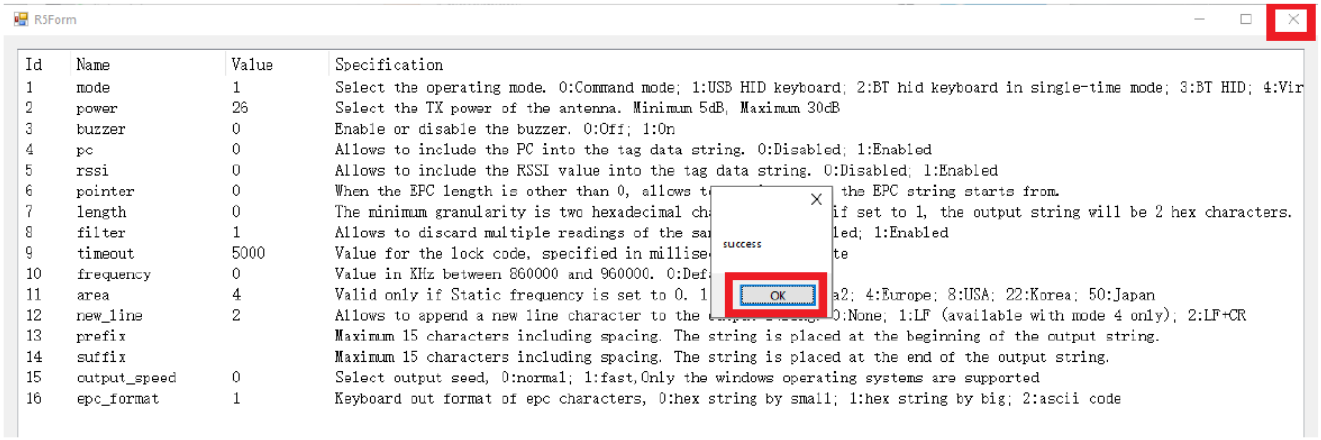
7. Type the new value and then confirm with “Set”.



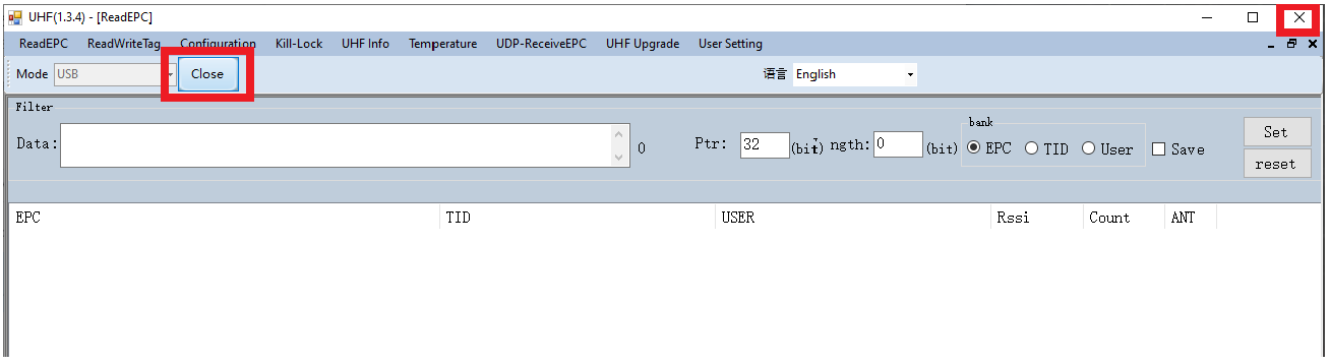
8. Check that the value has been stored and then confirm by clicking on “Set”.



9. Confirm again by clicking on “OK” and close the window.



10. Click on “Close” to close the connection with the reader and then close the “UHFapp”.



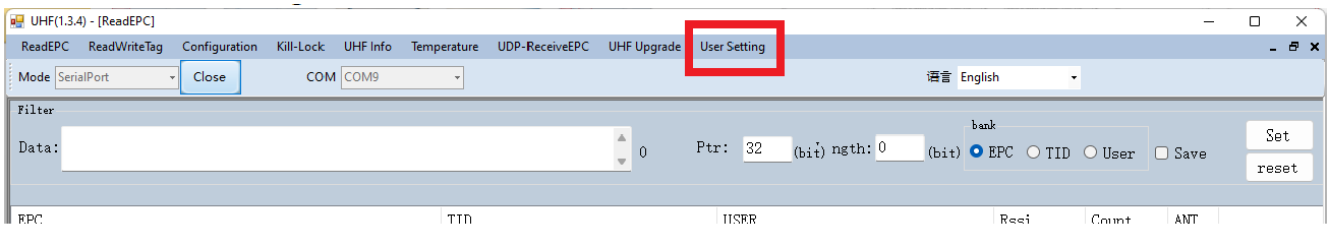
11. Unplug the reader from the PC and re-plug it after 5-10 sec.
12. The new parameters have been applied and you can now use the reader.

R-DT-USB-CW-RS232-101

To adjust the desired parameters, follow the below example made with the “buzzer” parameter:

1. Unzip the “R-DT-UHF-CW-RS232-101-ConfigTool” folder on your desktop.
2. Keep all the documents inside the same folder.
3. Launch the “UHFapp.exe”.

4. In the top left corner select “SerialPort” and chose the right COM port, then click on “open”.



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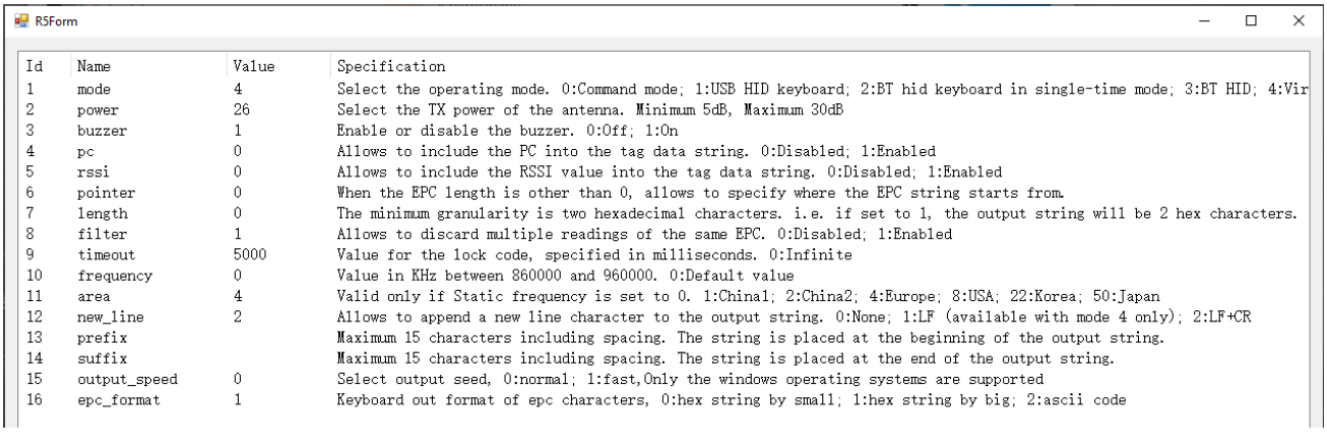

Id	Name	Value	Specification
1	mode	4	Select the operating mode. 0:Command mode; 1:USB HID keyboard; 2:BT hid keyboard in single-time mode; 3:BT HID; 4:Vir
2	power	26	Select the TX power of the antenna. Minimum 5dB, Maximum 30dB
3	buzzer	1	Enable or disable the buzzer. 0:Off; 1:On
4	pc	0	Allows to include the PC into the tag data string. 0:Disabled; 1:Enabled
5	rssi	0	Allows to include the RSSI value into the tag data string. 0:Disabled; 1:Enabled
6	pointer	0	When the EPC length is other than 0, allows to specify where the EPC string starts from.
7	length	0	The minimum granularity is two hexadecimal characters. i.e. if set to 1, the output string will be 2 hex characters.
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9	timeout	5000	Value for the lock code, specified in milliseconds. 0:Infinite
10	frequency	0	Value in KHz between 860000 and 960000. 0:Default value
11	area	4	Valid only if Static frequency is set to 0. 1:China1; 2:China2; 4:Europe; 8:USA; 22:Korea; 50:Japan
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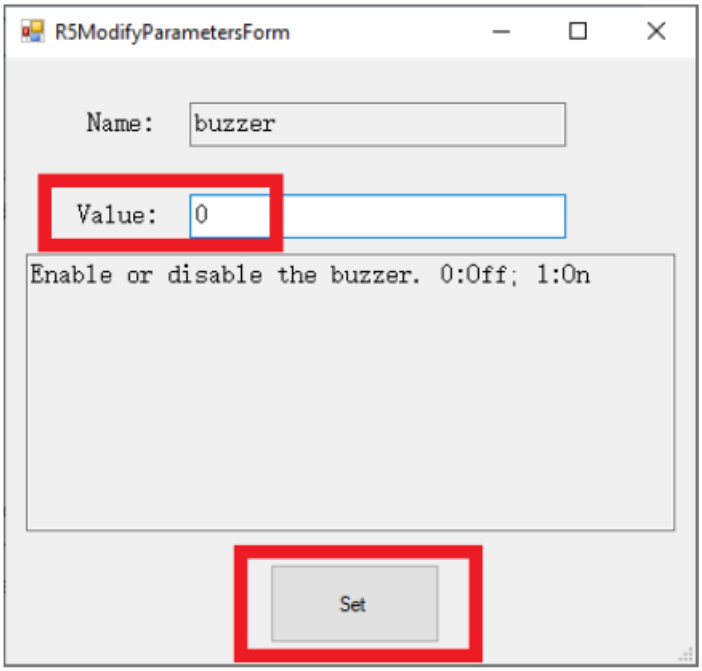
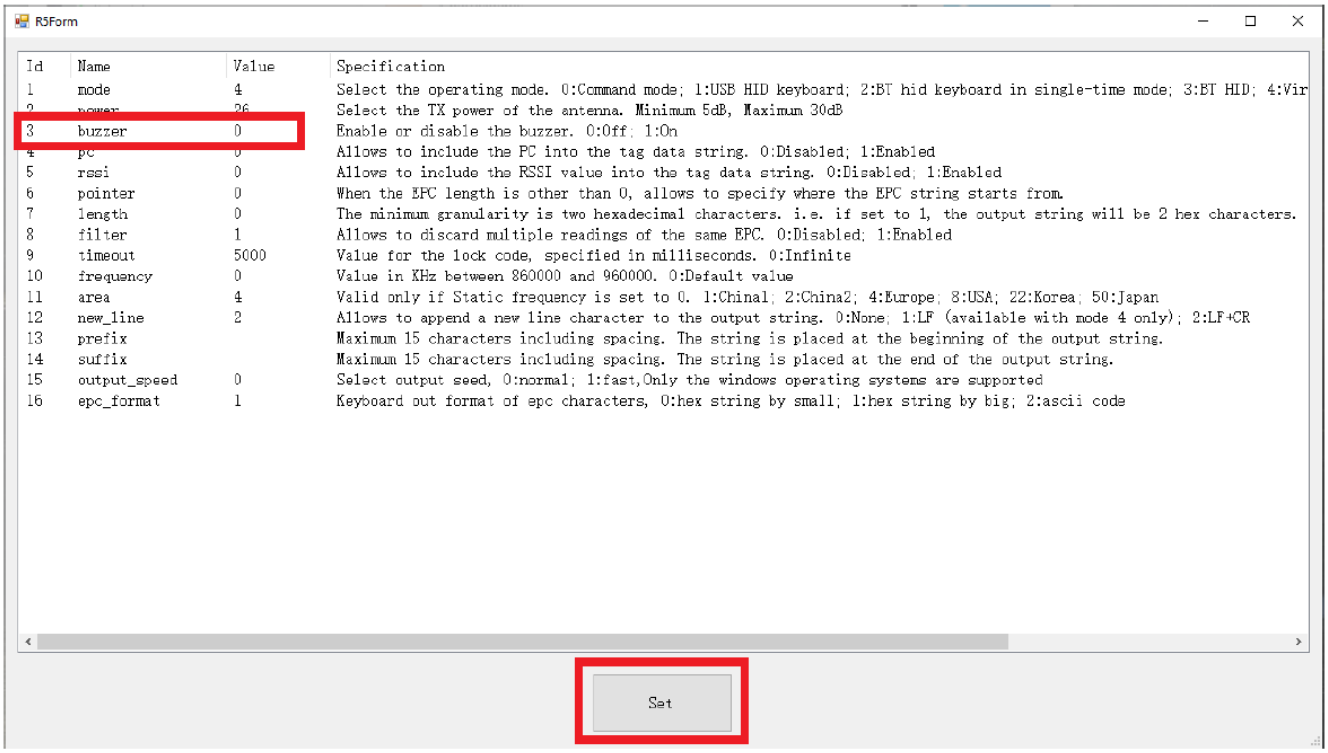
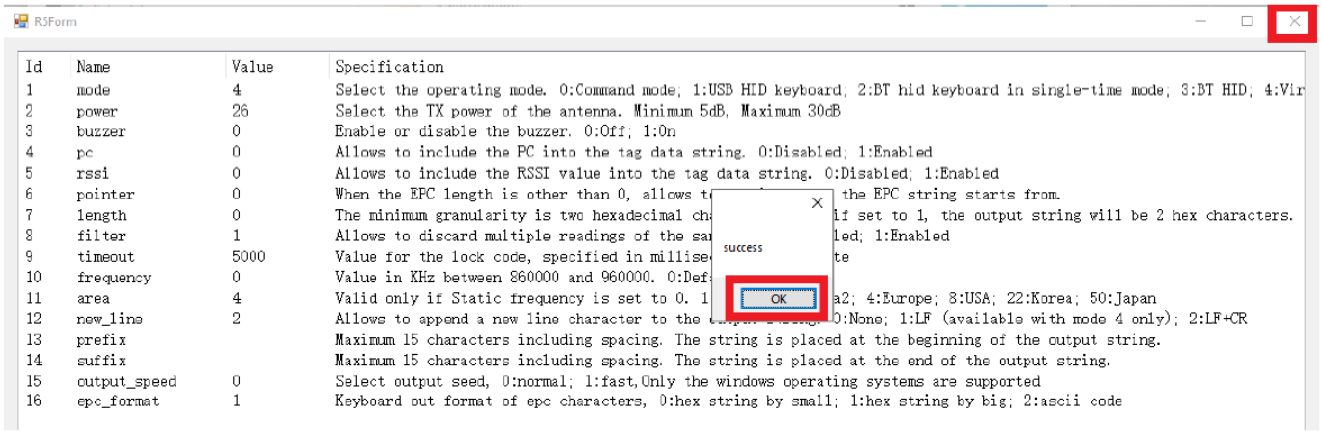
6. Type the new value and then confirm with “Set”.



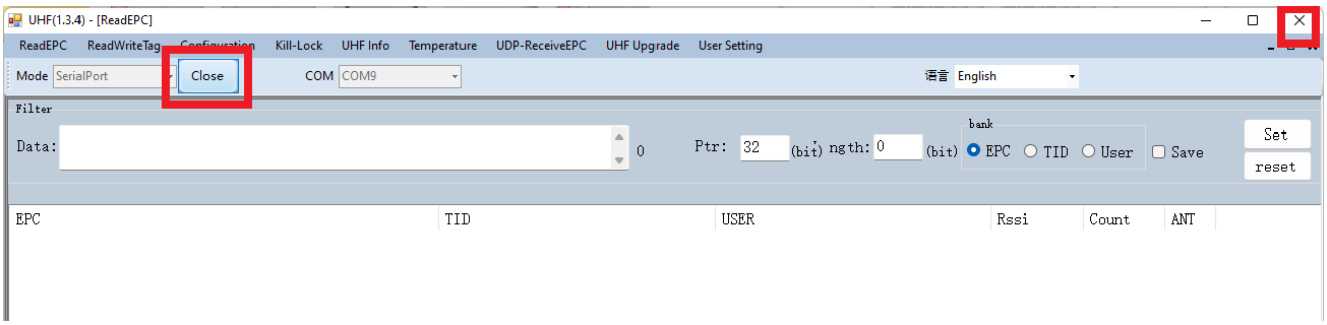
7. Check that the value has been stored and then confirm by clicking on “Set”.



8. Confirm again by clicking on “OK” and close the window.
9. Click on “Close” to close the connection with the reader and then close the “UHFapp”.



10. Unplug the reader from the PC and re-plug it after 5-10 sec.



11. The new parameters have been applied and you can now use the reader.

Safety and maintenance

Please carefully read this paragraph in order to ensure that a correct care and maintenance plan is followed to guarantee optimal operation of the Portal+.

- Storage
- Do not expose the reader to water or moisture.

- Installation
- The reader shall be installed on a non-metallic desk/table.
- Handling and operation
- Handle and operate the reader with care; significant shocks may damage it.
- Do not place any heavy load on the top of the reader.
- Cleaning
- Gently wipe with a slightly wet cloth and if needed, dry it immediately.
- Maintenance
- Do not open the reader and attempt any modification to mechanical and/or electrical parts of the reader. If extraordinary maintenance is required, please contact Datamars support (**support-tid@datamars.com**). Unauthorized service will void the warranty.

Documents / Resources

	**DATAMARS R-DT-UHF-CW-KBW-101 All-in-One Stationary UHF Reader** [pdf] User Manual R-DT-UHF-CW-KBW-101, R-DT-UHF-CW-RS232-101, R-DT-UHF-CW-KBW-101 All-in-One Stationary UHF Reader, R-DT-UHF-CW-KBW-101, All-in-One Stationary UHF Reader, Stationary UHF Reader, UHF Reader, Reader

References

- **Datamars | Textile ID – Your RFID partner for the industrial laundry market**