Setting Device
for NRF5 series

Version 1.01

Introduction

This User's Manual is organized to provide a brief description of setting device for electronic personal dosimeter NRF5 series (NRF50, NRF51 and NRF54). If there are some requirements or improvements about this setting device, please contact Fuji Electric representative.

Also, in the event of any malfunctions or other problems, contact Fuji Electric representative immediately.

Safety Precaution

	Do not use, if smoke, unusual odor or abnormal noise exists.
	Do not plug into the outlet that is not designated.
	Do not use power cable other than provided.
	Do not disassemble, repair or alter the Dosimeter Setting Device.
⚠ Attention	
	Use dosimeter with power ON. Data may be lost, if dosimeter is turned OFF during use.

Contents

1.　　Overview

1．1　Overview

　　This setting device consists of hardware and software. It has a function of data communication to dosimeter (Model: NRF50, NRF51 and NRF54) by infrared or USB to read setting values and dose information from dosimeter, and a function of writing set value changed on the PC display. Trend data read from dosimeter can be exported as a plain text.

　　Configuration software is designed to correspond with Microsoft® Windows® operating system.

1．2　Product package

(1)　Configuration software installation CD　　1

(2)　User's manual　　　　　　　　　　　　1

(3)　USB cable　　　　　　　　　　　　　　1

1．3　Optional Accessories

(1)　Infrared (IR) setting device

　　　ACTiSYS Corporation　　　ACT-IR224UN-LN96

2.　　　Specification

2．1　Basic specification

Basic function　:

1. Read setting values and dose information from dosimeter
2. Write setting values into dosimeter
3. Display a table of trend data

Peer　　　　　:　Electronic Personal Dosimeter (NRF50, NRF51 and NRF54)

Temperatures　:　　0　to　40 °C

Humidity　　　:　　30　to　85 %RH

2．2　Required environment

The following hardware and software are required.

(1) Hardware

One set of PC/AT compatible platform and peripheral (hereinafter, PC) that meet the following specifications

・CPU	:	Pentium 1GHz, or greater
・Memory	:	1G Byte, or greater
・Hard Drive	:	Free disc space of 20 MB, or greater
・Display	:	Resolution 1024 × 768, or greater
・Communications Interface	:	USB2.0 × 1 ch
・Others	:	Mouse and keyboard

(2) Software

The PC mentioned in (1) should have the following software installed.

・Operating System　　　　:　Windows® 8.1, 10 (32/64bit)

Notes)

∗ **Microsoft®**, **Windows®**, **Windows logo®**, **Windows Start logo®** are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

∗ Screen shot(s) reprinted with permission from Microsoft Corporation.

3. Device structure

3. 1 USB cable

Structure of USB cable is shown below

Fig. 3-1 USB cable

⚠ Attention	There is a possibility USB cable other than the suppried cable won't fit in the port on dosimeter. USB cable may be easily pulled depending on the shape of micro-B plug.

3. 2 IR setting device (optional)

Structure of IR setting device is shown below

Fig. 3-2 IR setting device

Parts	Description
USB connector	Connect to USB port of PC
IR head	Powered from USB port of PC. Other power supply is not necessary.

4.   Descriptions and setting-ups

4. 1   System configuration

Configuration software is used in the following configuration.

USB

USB cable
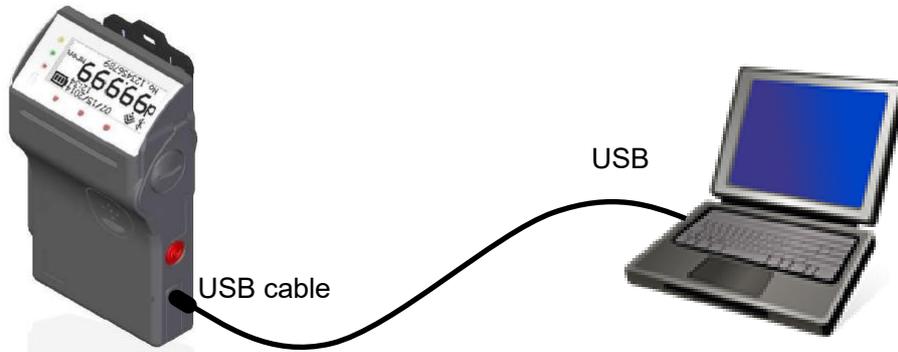
* While connecting USB, IR device does not work.

IR setting device (optional)
IrDA1.0

USB
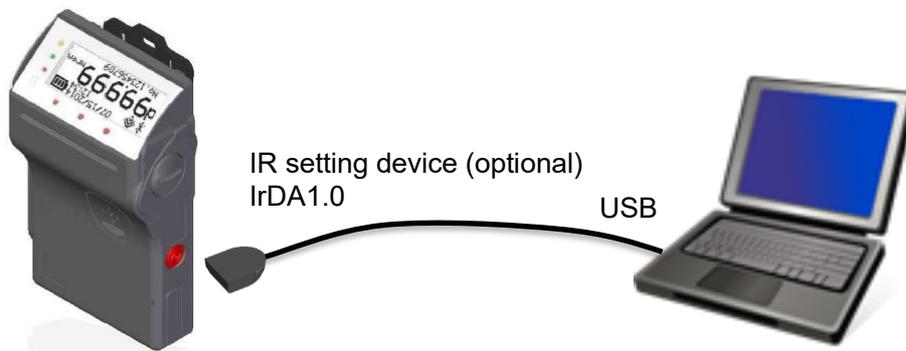
* IR reception is located at lower left on the back of dosimeter.

Fig. 4-1 System configuration

4.2 Configuration software

Functions overview of configuration software is shown below:

Note) EPD stands for electronic personal dosimeter.

Screen Flow	Overview of the feature
Startup Window	Display a version of this software. Select a serial port to be used.
Main Menu	Main Menu
EPD settings	Read or write overall configurations such as time alarm and interval of trend data. See 5.4 EPD settings
Alarm settings	Set alarm threshold of accumulated dose and dose rate. See 5.5 Alarm settings
Calibration	Set calibration factor with direct input. See 5.6 Calibration
Maintenance settings	Read or write maintenance settings such as functions ON/OFF. See 5.7 Maintenance settings
Read out EPD data	Display measurement data. See 5.8 Read out EPD data
Operating mode setting	Select operating mode. See 5.9 Operating mode setting
EPD No.	Set EPD number. See 5.10 EPD No.
Read out trend data	Display trend data. See 5.11 Read out trend data
Reset EPD data	Reset operation time and accumulated dose. See 5.12 Reset EPD data
WiFi setting	Set WiFi setting. * See 5.13 WiFi setting
Alarm management	Set alarm action such as alarm pattern. See 5.14 Alarm management

* WiFi version only.

4．3　Setting up

Setup the hardware first, then the software.

[USB driver setups]

Install by downloading CP210x USB to UART Bridge VCP Drivers from the following URL.

https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers

[IR setting device driver setups]　(Optional)

Installer is automatically launched, when CD attached in IR setting device

is inserted. If not launched automatically, perform the following file.

driver¥ACT-IR224UN-DriverInstaller_************.exe

[Software setups]

(1)　Insert the setting software installation CD in the CD-ROM drive on PC.

(2)　Launch "**Setup.exe**" file.

(3)　Install according to the instructions.

5.　　　Operational instruction

5.　1　Start the configuration software

(1) Connect dosimeter to computer and turn on the dosimeter.

(2) Double-click the icon

NRF5x_v100
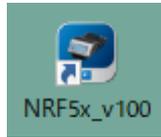
Fig. 5- 1 Icon of configuration software

(3) Configuration software is launched, then, the startup window will be indicated.
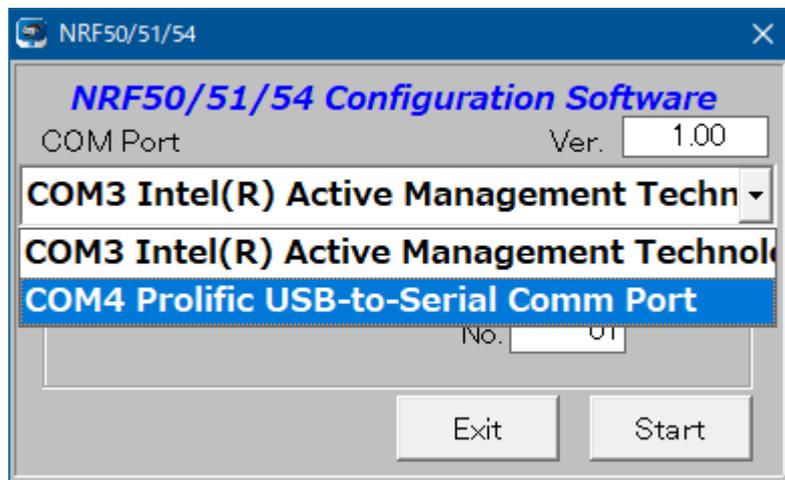
Fig. 5- 2 Startup window

⚠ Attention	For IR(USB) COM port number, serial port number is assigned following serial port number on your PC (COM*) (e.g. : from COM4)

(4) Click [Start] button to start communication with the dosimeter. Menu display appears.

Plug and play Devices: Check the box.

Enter Setting Device No.: Set "No. 01" (default).

If wishing to finish, click [Exit] button, then Confirmation display appears to finish the program.
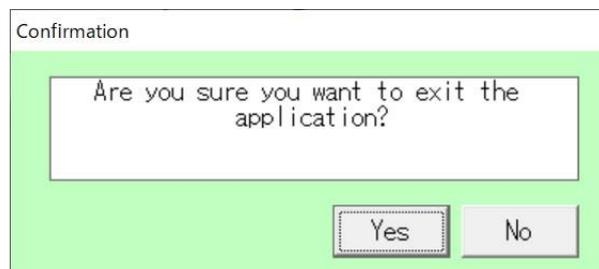
Fig. 5- 3 Confirmation display for finishing program

⚠ Attention	🚫	**Use dosimeter with power ON.** Data may be lost, if dosimeter is turned OFF during use.

5. 2 Screen interface

The fields and buttons on the following screen are common to all windows.

See the following sections for details of each window.
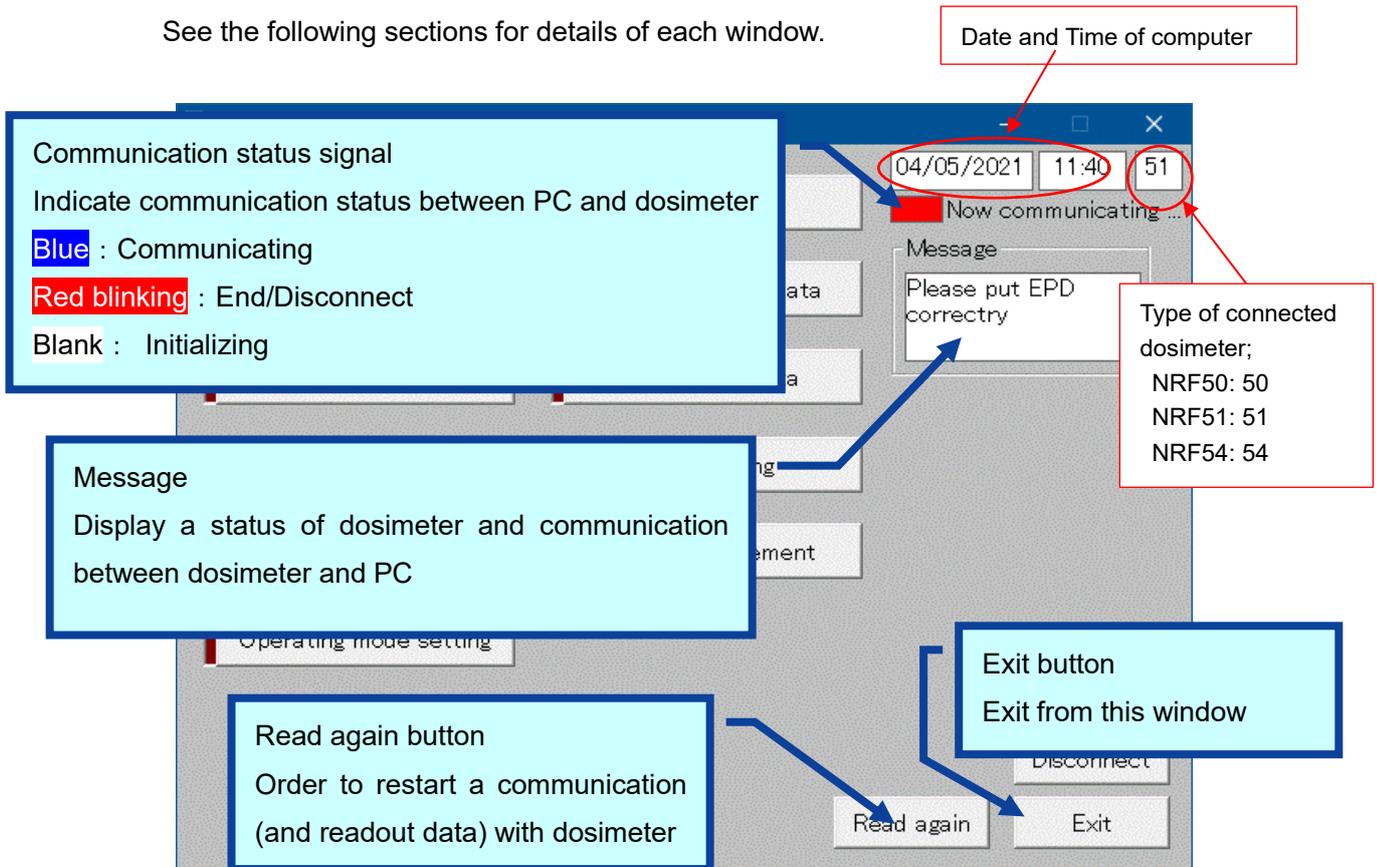
Fig. 5- 4 Common messages and layout of menu window

These messages are indicated in the message box. Message severity is as follows;

Severity	Messages	Descriptions
1	LOW Battery	Dosimeter's battery power is critically low.
2	Please put EPD correctly	Communication with dosimeter has not been established.
3	Processed successfully	Communication between setting device and dosimeter has been established.
4	Initializing…	In the process of establishing communication between setting device and dosimeter.

＊ Features on the menu will function only when dosimeter is in communication. If communication status sign is Red blinking, put EPD correctly, and then click 【**Read again**】 button to start/resume data communication and confirm communication sign is Blue.

5. 3 Main menu

Select button to move to next screen.

Note) EPD stands for electronic personal dosimeter.
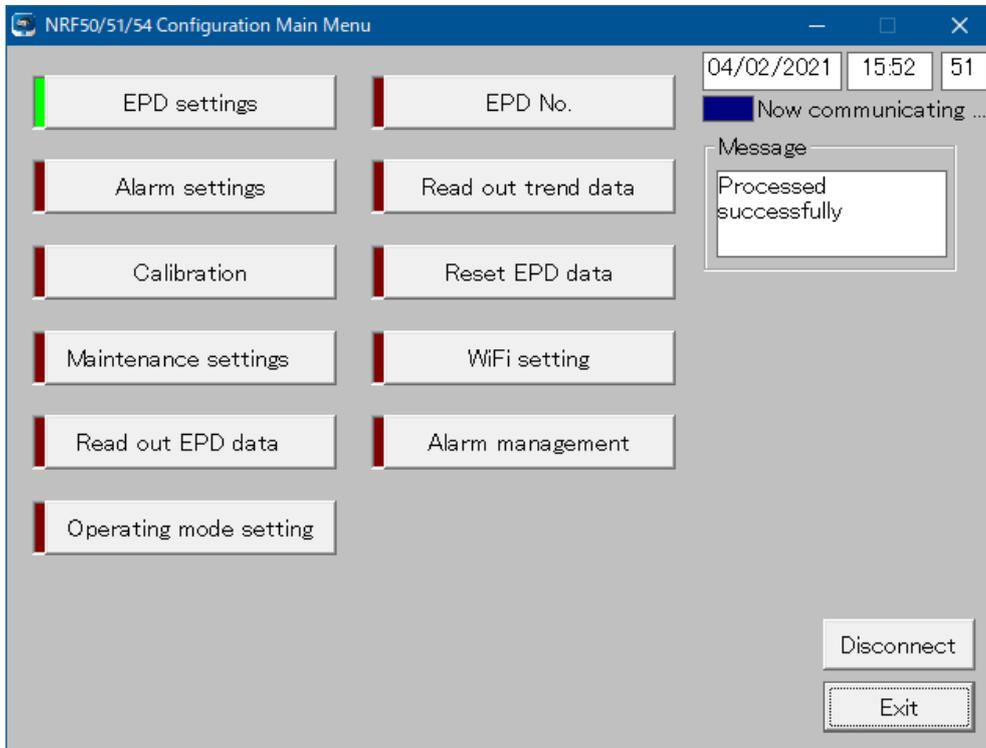
Fig. 5- 5 Main menu window

EPD settings	Go to the next window　: **Fig.5-6**
Alarm settings	Go to the next window　: **Fig.5-7**
Calibration	Go to the next window　: **Fig.5-8**
Maintenance settings	Go to the next window　: **Fig.5-9**
Read out EPD data	Go to the next window　: **Fig.5-10**
Operating mode setting	Go to the next window　: **Fig.5-11**
EPD No.	Go to the next window　: **Fig.5-12**
Read out trend data	Go to the next window　: **Fig.5-13**
Reset EPD data	Go to the next window　: **Fig.5-16**
WiFi setting	Go to the next window　: **Fig.5-17**
Alarm management	Go to the next window　: **Fig.5-18**
Read again	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Exit	Close the current window.

5. 4　EPD settings

Read or write overall configurations such as time alarm and interval of trend data.
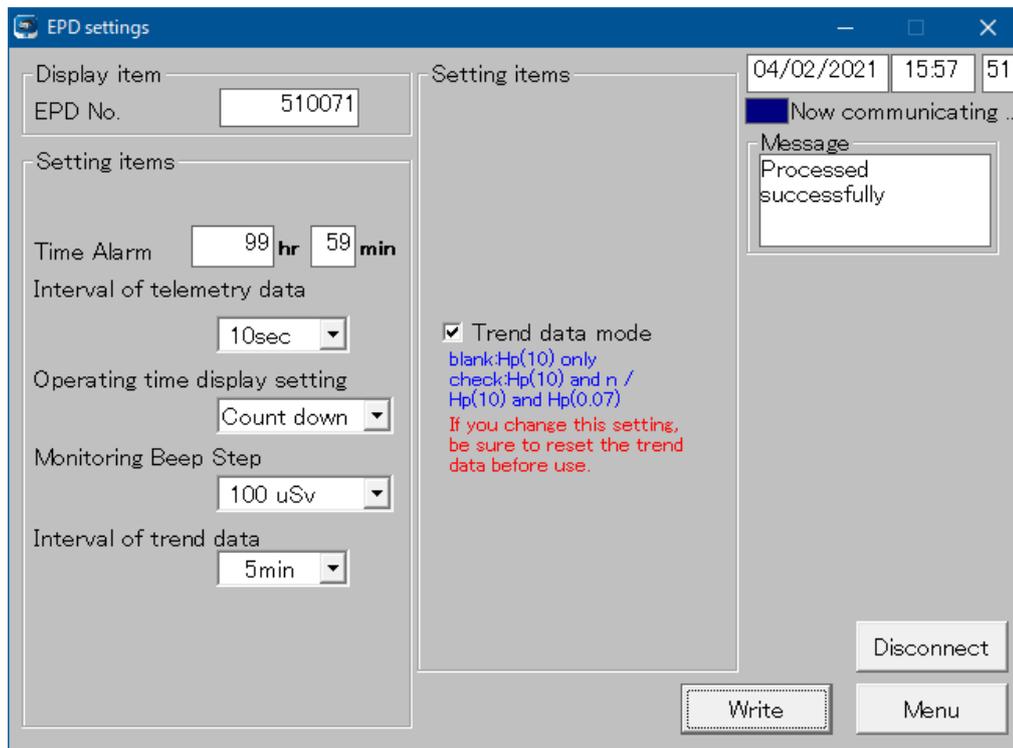
Fig. 5- 6 EPD settings window

<Display item>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Don't change the value.

\<Setting items\>

Items	Definition / Range and unit of functions	
Time Alarm	Alarm setting of operating time	1 min to 99 hr 59 min
Interval of telemetry data	Telemetry data transmission interval	2 sec / 4 sec / 10 sec / 30 sec / 1 min
Operating time display setting	Display setting of operating time	Count down / Count up
Monitoring Beep Step	Beep activating intervals	OFF / 0.1 / 0.2 / 1 / 10 / 100 µSv OFF / 0.01 / 0.02 / 0.1 / 1 / 10 mrem
Interval of trend data	Trend data record interval	10 sec / 30 sec / 1 min / 5 min / 10 min / 30 min / 60 min / 90 min / 24 hour
Trend data mode	Selectable trend data mode *for NRF51 and NRF54 only	blank :Hp(10) only check : Hp(10) and n / Hp(10) and Hp(0.07)

\<Command Button\>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with dosimeter. (*)This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig.5-5**

5. 5　Alarm settings

Set alarm threshold of accumulated dose and dose rate.
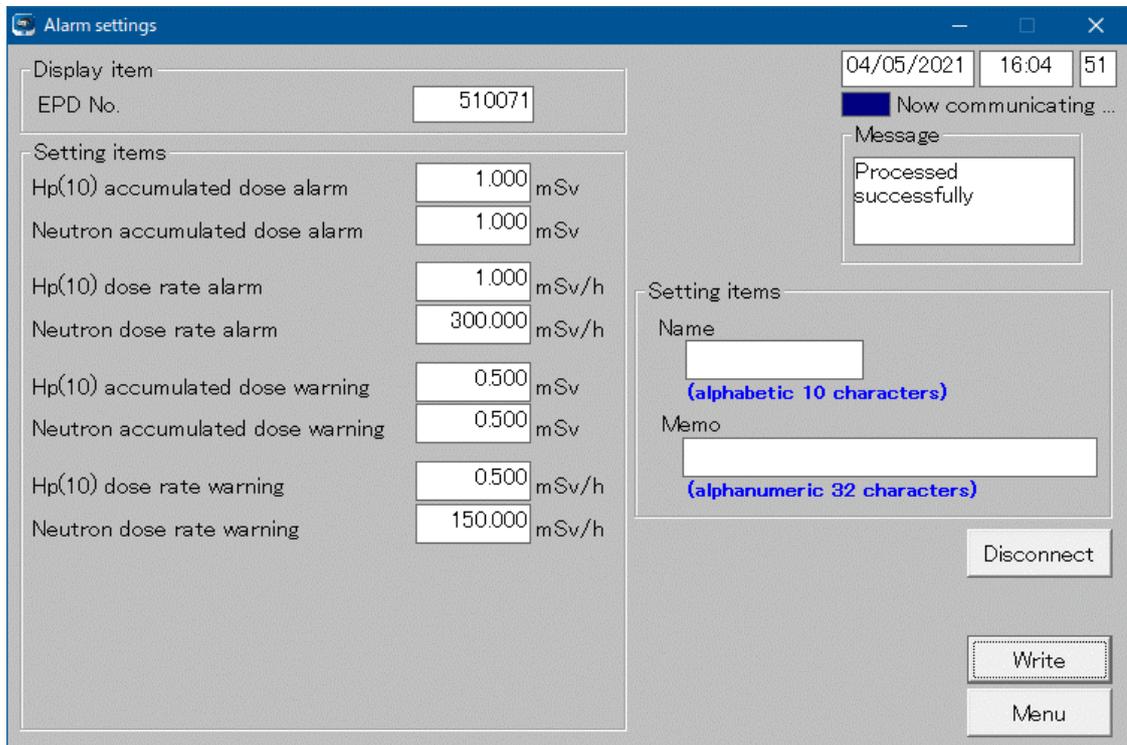
Fig. 5- 7 Alarm settings window

\<Display items\>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Don't change the value.

\<Setting items\>

Items	Definition / Range and unit of functions	
Hp(10) accum. dose alarm	Accum. dose alarm threshold for gamma	0.000 to 9999.999 mSv 0.0 to 999999.9 mrem
Hp(0.07) accum. dose alarm	Accum. dose alarm threshold for beta	
Neutron accum. dose alarm	Accum. dose alarm threshold for Neutron	
Hp(10) dose rate alarm	Dose rate alarm threshold for gamma	0.000 to 9999.999 mSv/h 0.0 to 999999.9 mrem/h
Hp(0.07) dose rate alarm	Dose rate alarm threshold for beta	
Neutron dose rate alarm	Dose rate alarm threshold for Neutron	

Items	Definition / Range and unit of functions	
Hp(10) accum. dose warning	Accumulated dose warning (pre alarm) threshold for gamma	0.000 to 9999.999 mSv 0.0 to 999999.9 mrem
Hp(0.07) accum. dose warning	Accumulated dose warning (pre alarm) threshold for beta	
Neutron accum. dose warning	Accumulated dose warning (pre alarm) threshold for Neutron	
Hp(10) dose rate warning	Dose rate warning (pre alarm) threshold for gamma	0.000 to 9999.999 mSv/h 0.0 to 999999.9 mrem/h
Hp(0.07) dose rate warning	Dose rate warning (pre alarm) threshold for beta	
Neutron dose rate warning	Dose rate warning (pre alarm) threshold for Neutron	
Name	User name	10 capital alphabetical characters
Memo	Note	32 alphanumeric characters

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again	Re-start communication with dosimeter. (*)This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig.5-5**

5．6 Calibration

Set calibration factor with direct input.
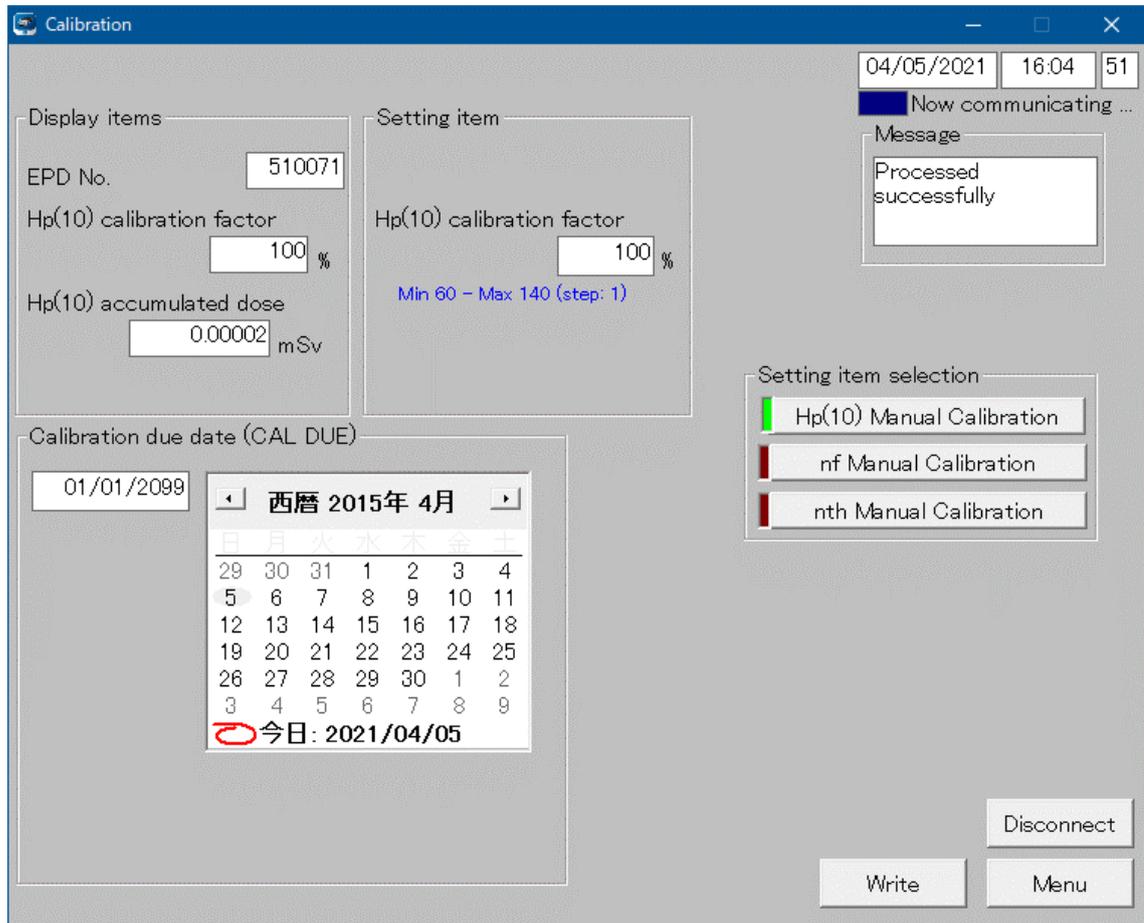
Fig. 5- 8 Calibration window

<Display items>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Don't change the value.
Hp(10) calibration factor	Calibration factor for gamma detector	60 to 140 % (Step：1 %)
Hp(10) accum. dose	Accumulated dose of gamma	mSv / mrem
Hp(0.07) calibration factor	Calibration factor for beta detector	60 to 140 % (Step：1 %)
Hp(0.07) accum. dose	Accumulated dose of beta	mSv / mrem
nf calibration factor	Calibration factor for fast neutron detector	60 to 140 % (Step：1 %)
nf accum. dose	Accumulated dose of fast neutron	mSv / mrem
nth calibration factor	Calibration factor for thermal neutron detector	60 to 140 % (Step：1 %)
nth accum. dose	Accumulated dose of thermal neutron	mSv / mrem

<Setting item>

Items	Definition / Range and unit of functions	
Hp(10) calibration factor	Calibration factor for gamma detector	60 to 140 % (Step : 1 %)
Hp(0.07) calibration factor	Calibration factor for beta detector	60 to 140 % (Step : 1 %)
nf calibration factor	Calibration factor for fast neutron detector	60 to 140 % (Step : 1 %)
nth calibration factor	Calibration factor for thermal neutron detector	60 to 140 % (Step : 1 %)

<Calibration due date (CAL DUE)>

Items	Definition / Range and unit of functions	
Calibration due date	Setting of calibration due date by selecting the date from calendar.	to Dec 31, 2099 MM/DD/YYYY

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again	Re-start communication with dosimeter. (*)This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig.5-5**

5. 7 Maintenance settings

Read or write maintenance settings such as functions ON/OFF.
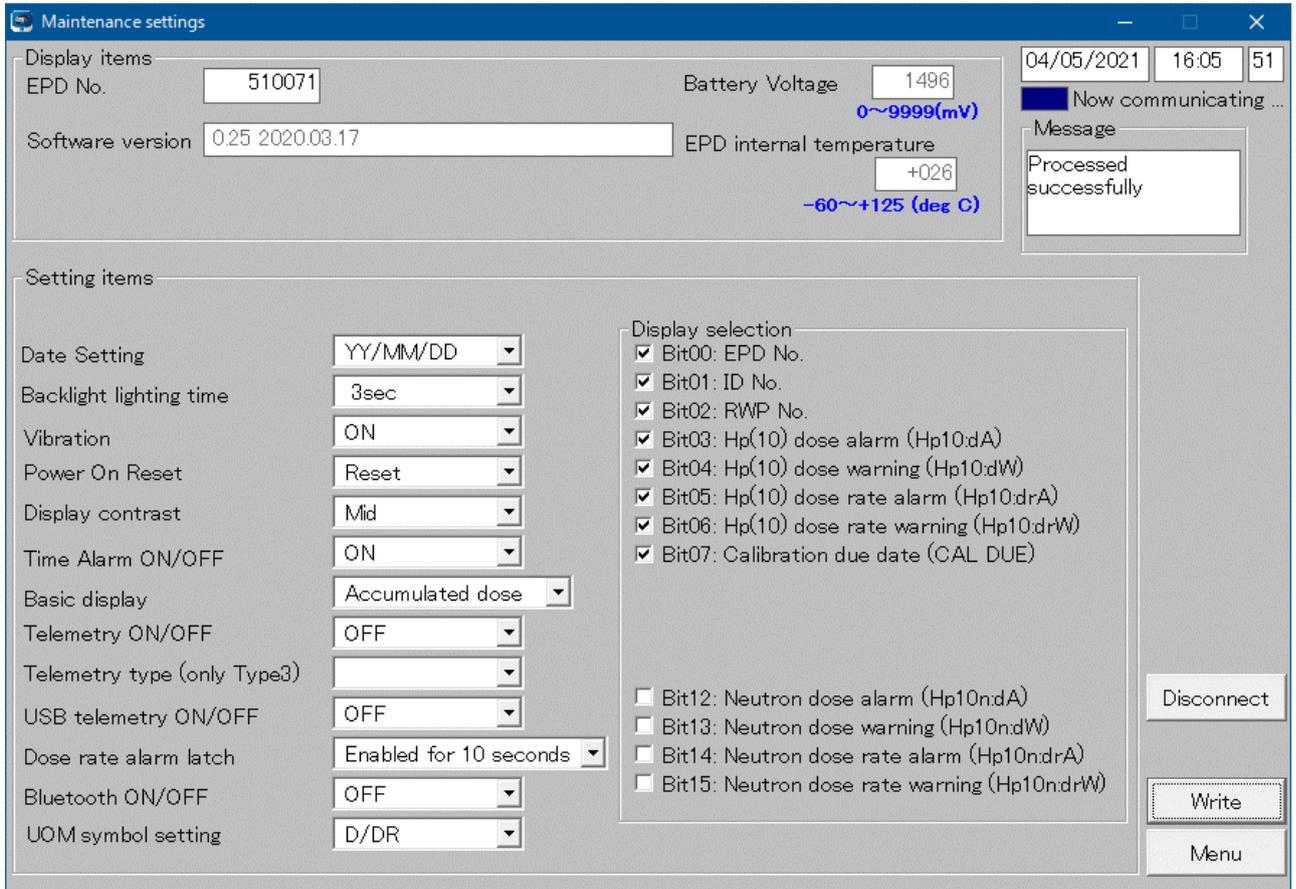
Fig. 5- 9 Maintenance settings window

<Display items>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Don't change the value.
Software version	Software version of dosimeter	Don't change the value.
Battery Voltage	Current battery voltage	Don't change the value.
EPD internal temperature	Inside temperature of dosimeter	Don't change the value.

<Setting items>

Items	Definition / Range and unit of functions	
Date Setting	Setting of date indication	YY/MM/DD / MM/DD/YY / DD/MM/YY
Backlight lighting time	Set a lighting time of backlight	3sec / 10sec / 30sec / 60sec / Continuity
Vibration	Set ON/OFF for vibrator function	OFF / ON
Power On Reset	Reset of EPD data such as accumulated dose, when Power On	Continuity / Reset
Display contrast	Set a contrast of display	Low / Mid / Hi
Time Alarm ON/OFF	Set ON/OFF of time alarm	OFF / ON
Basic display	Set a display during Power On	Accumulated dose / dose rate
Telemetry ON/OFF	Set ON/OFF for telemetry communication	OFF / ON
Telemetry type	Data format for telemetry communication	Type3
USB telemetry ON/OFF	Set ON/OFF for telemetry via USB communication	OFF / ON
Dose rate alarm latch	Alarming is continued for 10 seconds after cancellation of dose alarm	Disabled / Enabled for 10 seconds / Enabled
Bluetooth ON/OFF	Set ON/OFF for telemetry via Bluetooth communication	OFF / ON
UOM symbol setting	Setting of unit of measurement symbol	D/DR / d/dr

<Display selection>

Select the item to be displayed on the screen

Items	Difinition	Display character
EPD No.	Dosimeter Number	-
ID No.	ID card number	-
RWP No.	RWP number	-
Hp(10) dose alarm	Accum. dose alarm threshold for gamma	Hp10:dA
Hp(10) dose warning	Accumulated dose warning (pre alarm) threshold for gamma	Hp10:dW
Hp(10) dose rate alarm	Dose rate alarm threshold for gamma	Hp10:drA
Hp(10) dose rate warning	Dose rate warning (pre alarm) threshold for gamma	Hp10:drW
Calibration due date	Due date for calibration	CAL DUE
Hp(0.07) dose alarm	Accum. dose alarm threshold for beta	Hp07:dA
Hp(0.07) dose warning	Accumulated dose warning (pre alarm) threshold for beta	Hp07:dW
Hp(0.07) dose rate alarm	Dose rate alarm threshold for beta	Hp07:drA
Hp(0.07) dose rate warning	Dose rate warning (pre alarm) threshold for beta	Hp07:drW
Neutron dose alarm	Accum. dose alarm threshold for Neutron	Hp10n:dA
Neutron dose warning	Accumulated dose warning (pre alarm) threshold for Neutron	Hp10n:dW
Neutron dose rate alarm	Dose rate alarm threshold for Neutron	Hp10n:drA
Neutron dose rate warning	Dose rate warning (pre alarm) threshold for Neutron	Hp10n:drW

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

5. 8 Read out EPD data

The data in the dosimeter are shown on this screen.
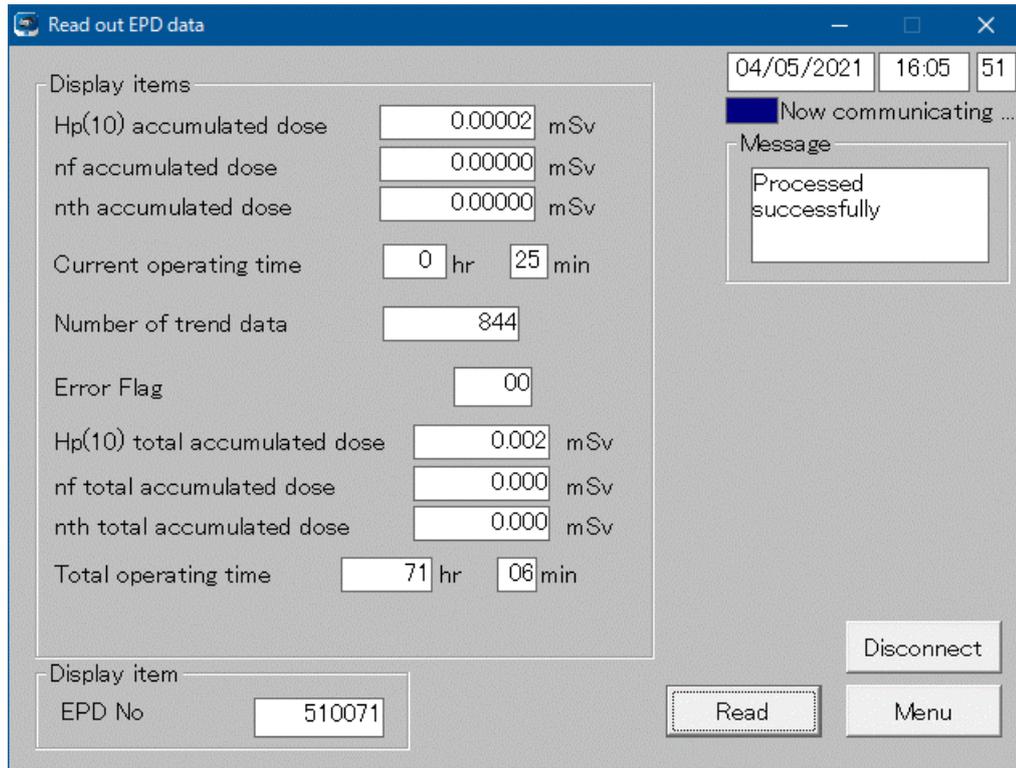
Fig. 5- 10 Read out EPD data window

<Display items>

Items	Definition / Range and unit of functions
Hp(10) accum. dose	Current accumulated dose of gamma
Hp(0.07) accum. dose	Current accumulated dose of beta
nf accum. dose	Current accumulated dose of fast neutron
nth accum. dose	Current accumulated dose of thermal neutron
Current operating time	Operation time of dosimeter
Number of trend data	Number of trend data currently stored
Error Flag	Error status 08: Low Battery, 40: Detector Failure, 48: Multiple failure
Hp(10) total accum. dose	Accumulated dose of gamma after previous reset
Hp(0.07) total accum. dose	Accumulated dose of beta after previous reset
nf total accum. dose	Accumulated dose of fast neutron after previous reset
nth total accum. dose	Accumulated dose of thermal neutron after previous reset
Total operation time	Accumulated operation time after previous reset

\<Display item\>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Don't change the value.

\<Command Button\>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again	Re-start communication with dosimeter. **(*)**This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig.5-5**

5. 9 Operating mode setting

Select operating mode.

Set Correction Factor (nf) and (nth).
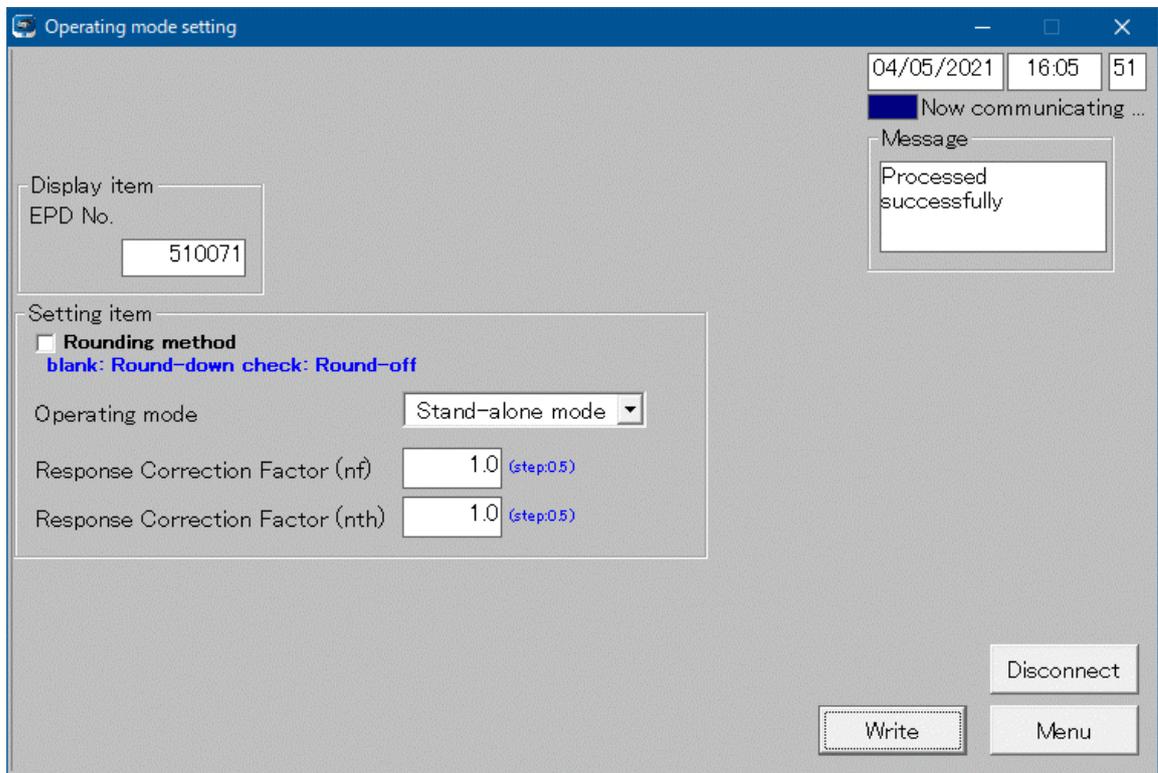
Fig. 5- 11 Operating mode setting window

<Display item>

Item	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	000001 to 999999

\<Setting items\>

Items	Definition / Range and unit of functions	
Rounding method	Selection of rounding method	Blank:Round-down, Check:Round-off
Operating mode	Selection of operating mode	Stand-alone mode / System mode

Differences in Operating mode		
	Stand-alone mode	System mode
Power ON/OFF with button on dosimeter	Available	Not available
Setting change with button on dosimeter	Available	Not available Change settings using this software.

Items	Definition / Range and unit of functions	
Response correction factor (nf)	Correction factor of nf for optimum energy response	0.0 to 99.0 (Step：0.5) (Must be 1.0 when calibration)
Response correction factor (nth)	Correction factor of nth for optimum energy response	0.0 to 256 (Step：0.5) (Must be 1.0 when calibration)

\<Command Button\>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

5. 10 EPD No.

Set EPD number.
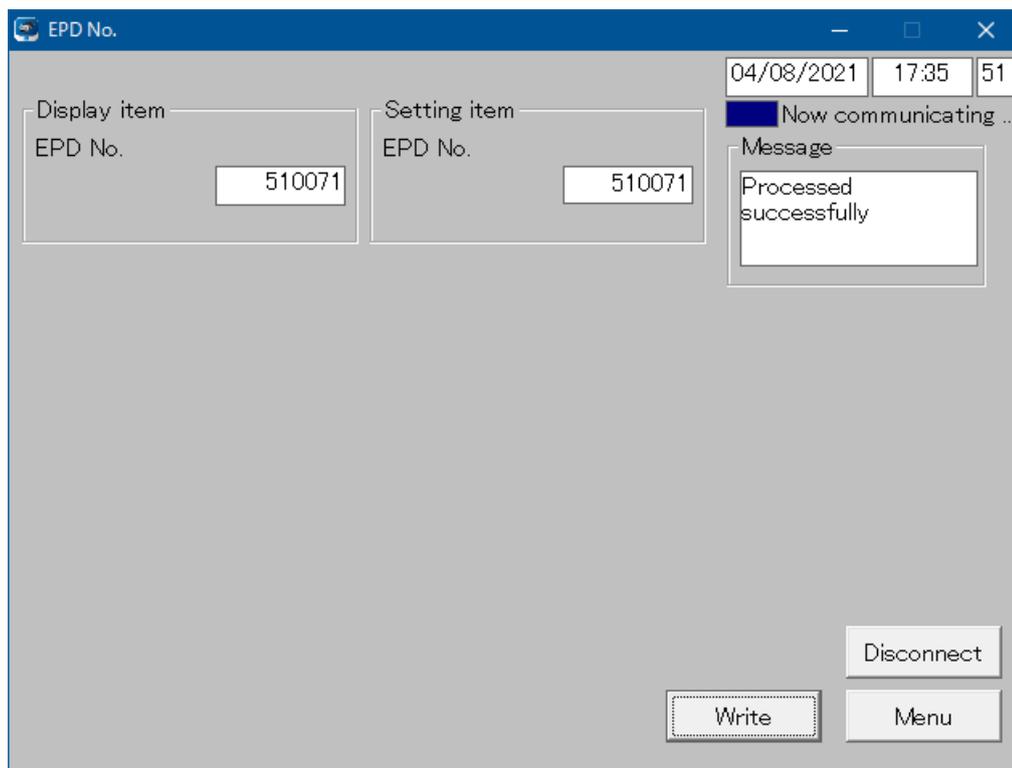
Fig. 5- 12 EPD No. window

<Display item>

Item	Definition / Range and unit of functions	
EPD No.	Current Dosimeter Number	000001 to 999999

<Setting item>

Item	Definition / Range and unit of functions	
EPD No.	New Dosimeter Number to be set	000001 to 999999

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

5. 11 Read out trend data

Display trend data.

5.11.1 Display items
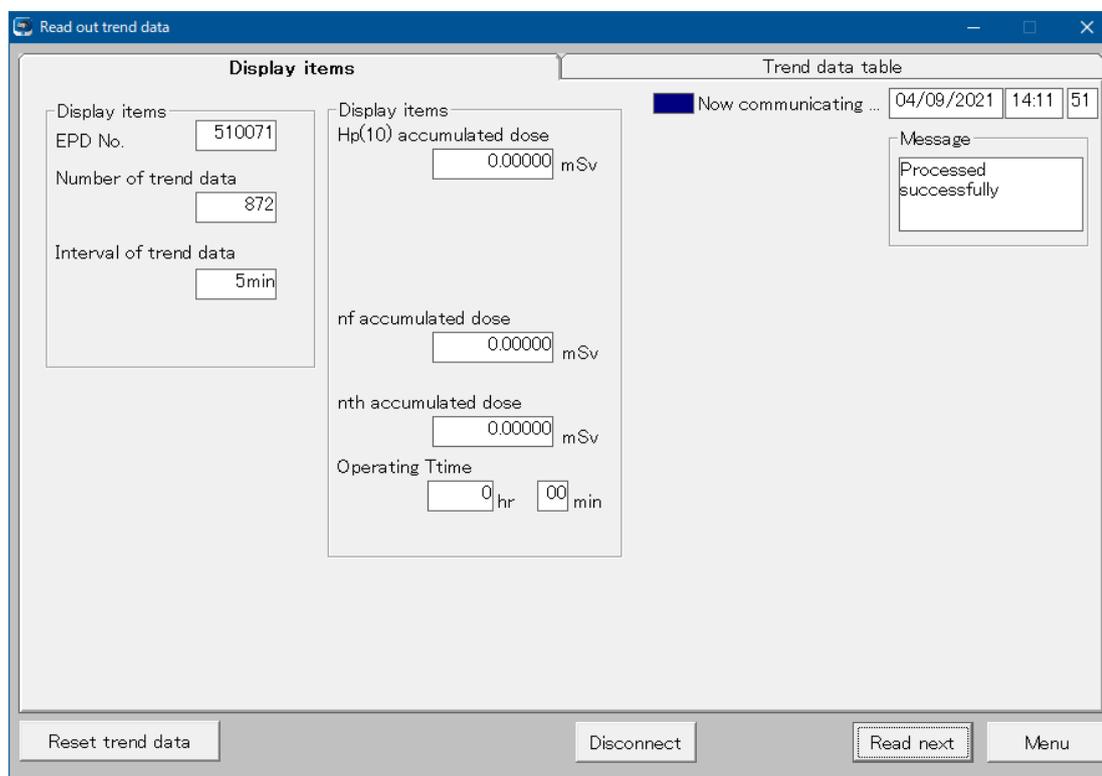
Fig. 5- 13 Read out trend data (display items) window

<Display items>

Items	Definition / Range and unit of functions
EPD No.	Dosimeter Number
Number of trend data	Number of trend data currently stored
Interval of trend data	Trend data record interval
Hp(10) accum. dose	Accumulated dose of gamma
Hp(0.07) accum. dose	Accumulated dose of beta
nf accum. dose	Accumulated dose of fast neutron
nth accum. dose	Accumulated dose of thermal neutron
Operating time	Operation time of dosimeter

<Command Button>

Reset trend data	Clear and reset trend data.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Read next	Start reading data of other dosimeter without back to Menu.
Menu	Go back to Menu window: **Fig. 5-5**
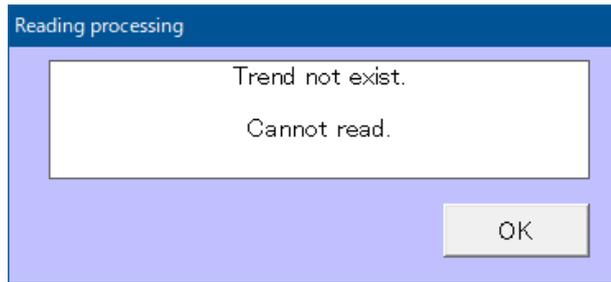
Fig. 5- 14 Error message window

⚠ Attention	The prompt window <Reading processing> will appear during data readout if a new trend does not exist. You need to wait until a data trending step given in the EPD settings window has passed, and then start data readout.

5.11.2 Trend data table

If there is trend data in the dosimeter, the data will be displayed as shown in Fig. 5-15.

To display Hp (0.07) or Neutron, use the button at the bottom center to change the display.

The trend data being displayed can be saved to the PC in csv format with "Save" button.

Change the extension from txt to csv when using it with spreadsheet software.

No.	Date and time	Restart flag	Interval of trend data (sec)	Accumulated dose (microSv)	Maximum dose rate (microSv/h)	Error flag	Alarm flag
1	02/16/2021 09:56:57	80	300	0	00.0E+0	00	00
2			300	0	00.0E+0	00	00
3			300	0	00.0E+0	00	00
4			300	0	00.0E+0	00	00
5			300	0	00.0E+0	00	00
6			300	0	07.0E+0	00	00
7			300	0	00.0E+0	00	00
8	02/16/2021 10:31:57	00	300	0	02.0E+0	00	00
9	02/16/2021 10:51:57	80	300	0	00.0E+0	00	00
10			300	0	00.0E+0	00	00
11			300	0	00.0E+0	00	00
12			300	0	00.0E+0	00	00
13			300	0	00.0E+0	00	00
14			300	0	00.0E+0	00	00
15			300	0	00.0E+0	00	00
16	03/05/2021 16:19:50	80	300	0	00.0E+0	00	00
17	03/05/2021 16:36:18	80	300	0	00.0E+0	00	00
18			300	0	00.0E+0	00	00
19			300	0	00.0E+0	00	00
20			300	0	00.0E+0	00	00
21			300	0	00.0E+0	00	00
22			300	0	00.0E+0	00	00

Fig. 5- 15 Read out trend data (trend data table) window

<Display items>

Items	Definition / Range and unit of functions
No.	Number of trend data
Date and time	Time of trend data acquisition. The time displayed is the dosimeter time and displayed every 7 or 14 data.
Restart flag	Continue or Restart of trend data measurement 00 : Continue, 80 : Restart
Interval of trend data (sec)	Trend data record interval
Accumulated dose (microSv, mrem)	Accumulated dose in the interval of trend data (μ Sv / mrem)
Maximum dose rate (microSv/h, mrem/h)	Maximum dose rate in the interval of trend data (µSv / mrem)

Error Flag	Type of error is indicated in hex. 0: not exist, 1: exist
	<Error flag of gamma trend data>
	    bit0: LOW Battery
	    bit1: Calibration expired
	    bit2: Memory failure
	    bit3: Abnormal inner temperature
	    bit4: RTC failure
	    bit5: Communication error
	    bit6: Gamma detector failure
	    bit7: Improper use
	<Error flag of Neutron or beta trend data>
	    bit0: Beta detector failure
	    bit1: nf detector failure
	    bit2: nth detector failure
	    bit3 to 7: (reserved)

* When multiple errors occur, all error items are displayed in hex notation.

Ex.) When Error flag of gamma trend data is displayed as "52", the following error items have occured simultaneously;

"Calibration expired" (bit 1), "RTC failure" (bit 4) and "Gamma detector failure" (bit 6) .

Items	Definition / Range and unit of functions
Alarm Flag	Type of alarm is indicated in hex.　0: not exist, 1: exist <Alarm flag of gamma trend data> 　　bit0: Time alarm 　　bit1: Emergency alarm 　　bit2: Accumulated dose of gamma overload 　　bit3: Dose rate of gamma overload 　　bit4: Accumulated dose of gamma alarm 　　bit5: Dose rate of gamma alarm 　　bit6: Accumulated dose of gamma warning 　　bit7: Dose rate of gamma warning <Alarm flag of Neutron or beta trend data> 　　bit0 to 1 : (reserved) 　　bit2: Accumulated dose of Neutron or beta overload 　　bit3: Dose rate of Neutron or beta overload 　　bit4: Accumulated dose of Neutron or beta alarm 　　bit5: Dose rate of Neutron or beta alarm 　　bit6: Accumulated dose of Neutron or beta warning 　　bit7: Dose rate of Neutron or beta warning

* When multiple alarms activate, all alarm items are displayed in hex notation.

Ex.) When Alarm flag of gamma trend data is displayed as "52", the following alarm items have activated simultaneously;

"Emergency alarm" (bit 1), "Accumulated dose of gamma alarm" (bit 4) and "Accumulated dose of gamma warning" (bit 6) .

<Command Button>

Read out trend data	All stored trend data is read out.
Hp(10)	Display trend data of gamma
Hp(0.07)	Display trend data of beta
Neutron	Display trend data of Neutron
Save	Stored trend data is all saved in a file.

5. 12 Reset EPD data

Reset operation time and accumulated dose.
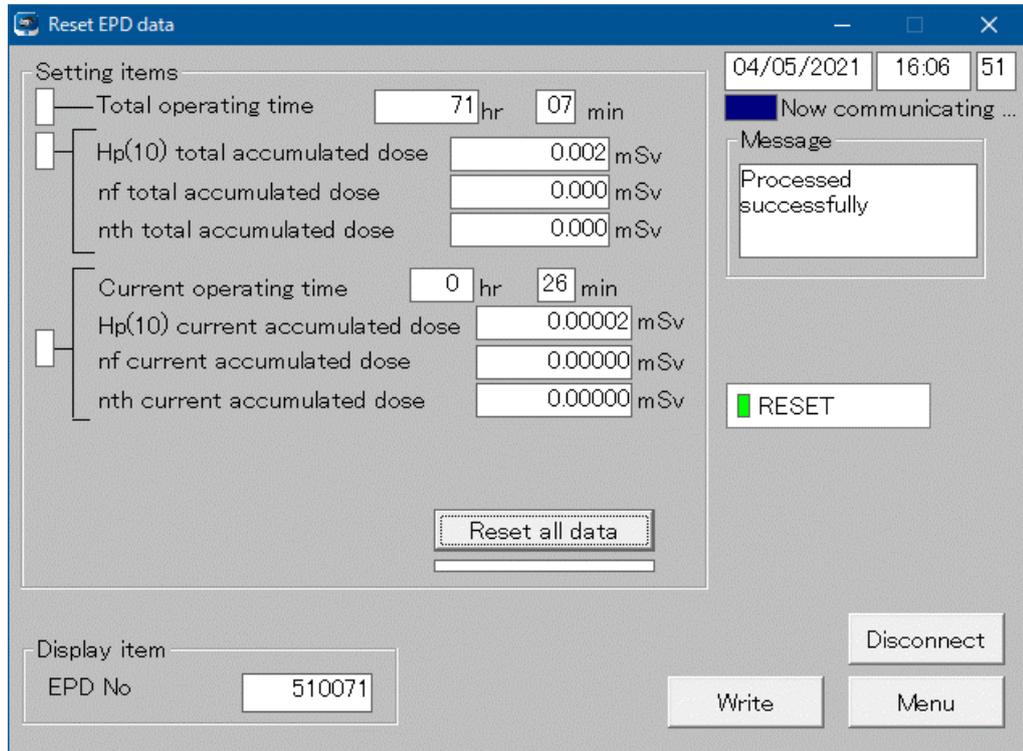
Fig. 5- 16 Reset EPD data window

<Setting item>

Reset all data	All data is reset.	All items are selected. Click "Write" button to reset all values.

<Display item>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Number of Dosimeter communicating

<Command Button>

Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. **(*)**This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

5. 13 WiFi setting

Set WiFi setting.
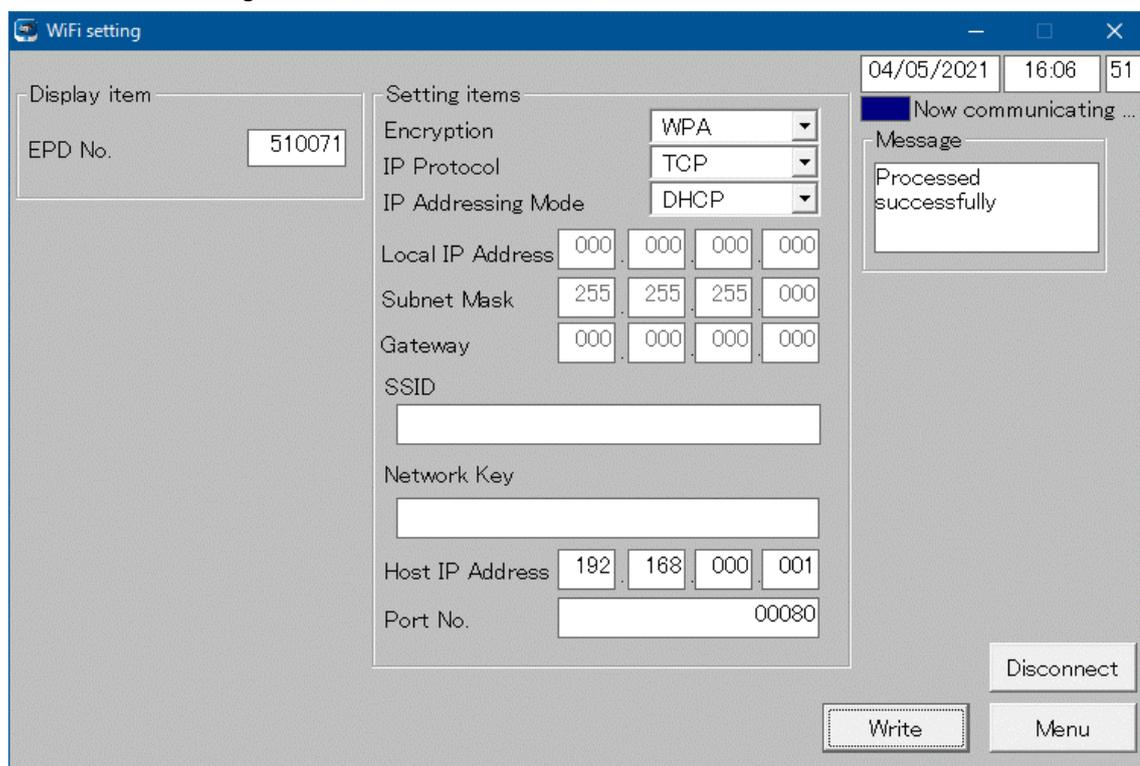
Fig. 5- 17 WiFi setting window

<Setting items>

Items	Definition / Range and unit of functions	
Encryption	Encryption method of WiFi communication	None / WPA / WPA2 / WEP
IP Protocol	Ethernet protocol	UDP / TCP
IP Addressing Mode	Mode selection of IP address setting	DHCP / Static
Local IP Address	Local IP address of dosimeter	Set Local IP
Subnet Mask	Subnet Mask of network	Set Subnet Mask
Gateway	Gateway of network	Set Gateway
SSID	SSID of WiFi access point	Set SSID
Network Key	Network key of WiFi access point	Set Network key
Host IP Address	Host IP address of server	Set Host IP address
Port No.	Port number of server	Set Port No.

<Display item>

Items	Definition / Range and unit of functions	
EPD No.	Dosimeter Number	Number of Dosimeter communicating

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter.
	(*)This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

5. 14 Alarm management

Set alarm action such as alarm pattern.

Fig. 5- 18 Alarm management window

When displaying Hp(0.07) or Neutron, click buttons at the bottom center.

\<Setting items\>

Type of alarm

Items	Definition
Hp(10) Dose Alarm	Accum. dose alarm threshold for gamma
Hp(10) Dose Warning	Accumulated dose warning (pre alarm) threshold for gamma
Hp(10) Rate Alarm	Dose rate alarm threshold for gamma
Hp(10) Rate Warning	Dose rate warning (pre alarm) threshold for gamma
Operating Time Alarm	Alarm for operating time
Low Battery	Low battery voltage
Detector Failure	Sensing device failure
Memory Error	Memory function error
Call Button	Press call button
Communication Error	Communication device error
Calibration Due Expired	Calibration due date is expired.

Items	Definition
Hp(0.07) Dose Alarm	Accum. dose alarm threshold for beta
Hp(0.07) Dose Warning	Accumulated dose warning (pre alarm) threshold for beta
Hp(0.07) Rate Alarm	Dose rate alarm threshold for beta
Hp(0.07) Rate Warning	Dose rate warning (pre alarm) threshold for beta
Neutron Dose Alarm	Accum. dose alarm threshold for Neutron
Neutron Dose Warning	Accumulated dose warning (pre alarm) threshold for Neutron
Neutron Rate Alarm	Dose rate alarm threshold for Neutron
Neutron Rate Warning	Dose rate warning (pre alarm) threshold for Neutron

Settings

Items	Definition / Range and unit of functions	
Alarm Pattern (Note 1)	Selection of alarm action pattern for LED, vibration and buzzer.	Disabled/1/2/3/4/5
Frequency	Buzzer frequency	High/Low
Buzzer Sound	Buzzer action	OFF/ON
Backlight	Backlight color	OFF / RED / YELLOW / WHITE
Sounding Time	Sounding time of buzzer	Continuous, every one minute from 1 to 15 minutes
Mute by Button	If set available, buzzer sound becomes off after pushing button.	Not available / Available
Vibration	Vibration action	OFF/ON
Flash LED	LED action at top side of LCD	OFF/ON
Latch	If set ON, latch function is valid in dose rate alarm (warning).	OFF/ON

Note 1: See instruction manual of electronic personal dosimeter for details on alarm pattarn.

<Setting items>

Items	Definition / Range and unit of functions	
Call Button Action	Selection of call button action	-Emergency Alarm : Performs the set alarm action. Emergency status is reported to the computer when the wifi telemetry is ON. -Support Assist : Performs the set alarm action. Emergency status is not reported to the computer even when the wifi telemetry is ON. Test: Operation test of backlight, LED and vibration Disabled :No action

Items	Definition / Range and unit of functions	
Emergency Alarm / Support Assist Message	This message appears when call button is pressed.	10 alphanumeric characters
Alarm Test	When each alarm event is selected and written, the alarm action can be checked.	OFF / Each Alarm Event

<Setting mode>

Items	Definition
Collective setting	The selected setting is set at the same time for all alarm events.
Custom setting	Any setting is set for each alarm event individually.
Default setting	The default setting is set for each alarm event.

<Display item>

Item	Definition / Range and unit of functions
EPD No.	Dosimeter Number

<Command Button>

Write	Write the setting values to the dosimeter.
Disconnect	Finish the communication with dosimeter.
Read again (*)	Re-start communication with a dosimeter. (*)This is indicated while communication is not established.
Menu	Go back to Menu window: **Fig. 5-5**

6.   Troubleshooting

Response to message on pop up window

(1) Communication error

Indicates communication error between a computer and a Dosimeter Setting Device.

・During computer start up, processing, or error occurrence between a computer and a Dosimeter
   Setting Device

Error	Suggested Solution
<Establishing communication> Error message	Check the cable connection. Check the position of dosimeter and setting device.
<Status process> No response	Check the cable connection. Check the position of dosimeter and setting device.

・For communication error during data readout from dosimeter

Error	Suggested Solution
<Reading Process> Error message	Retry reading out.
<Reading Process> No response	Check the connection with cable.
<Reading Process> Trend not exist. Cannot read.	No Trend data. Create Trend data first, and then read out.

・For communication error during writing configurations to the dosimeter

Error	Suggested Solution
<Writing Process> Error message	Process reading out, first. Check the cable connection. Check the position of dosimeter and setting device.
<Writing Process> No response	Process reading out, first. Check the cable connection.

★ Please restart PC if the errors not listed in this section occurred.

(2) Internal error

   Error detected inside a computer is indicated.

・At starting of writing / Occurrence of abnormality on configuration range:

Error	Suggested Solution
Input error of **** value. Re-enter the correct value.	Value of **** within the invalid range. Re-enter the value within the valid range

(3) Error during at communication start:

   Errors detected by a computer internal check when attempted to write, or to readout trend data.

・When attempting writing process.

Error	Suggested Solution
No response	Start reading process, first.

・Error when attempted to reading out trend data

Error	Suggested Solution
No response	Cancel the trend data readout, then start regular reading process.

★ Please restart PC if the errors not listed in this section occurred.