No. 59-2973-4

EN

REDSCAN Pro

Laser Scan Detector

RLS-50100V

RLS-3060V

Setting guide (Ver. 2.1.x)

Support browser: Chrome
(running on Windows 10, Mac, Android)

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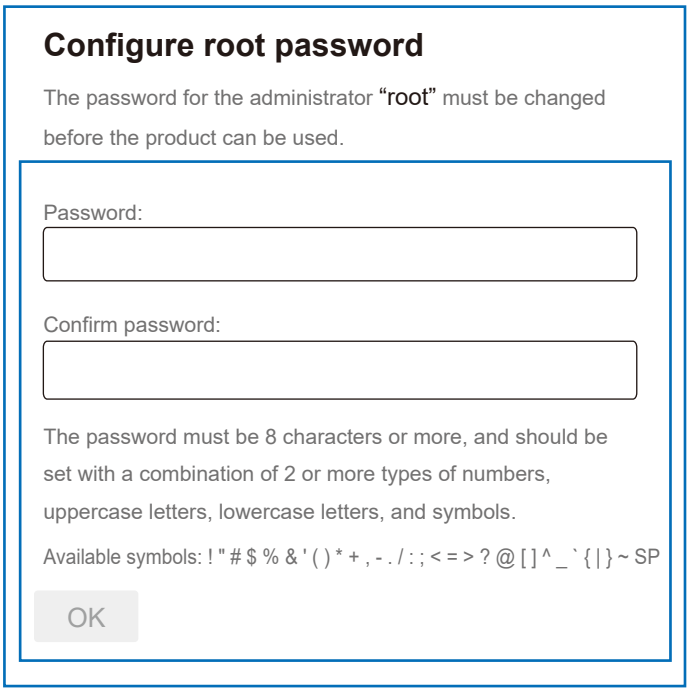
*1.1 = Ver1.1 or later

*2.0 = Ver.2.0 or later **2.0 = Renamed in Ver.2.0 or later

*2.1 = Ver.2.1 or later

1. Initial configuration



2.x.x (xxxx/xx/xx)

1-1. Configure root password

Available:

Alphabets [A to Z.]

Numbers [0 to 9]

Symbols

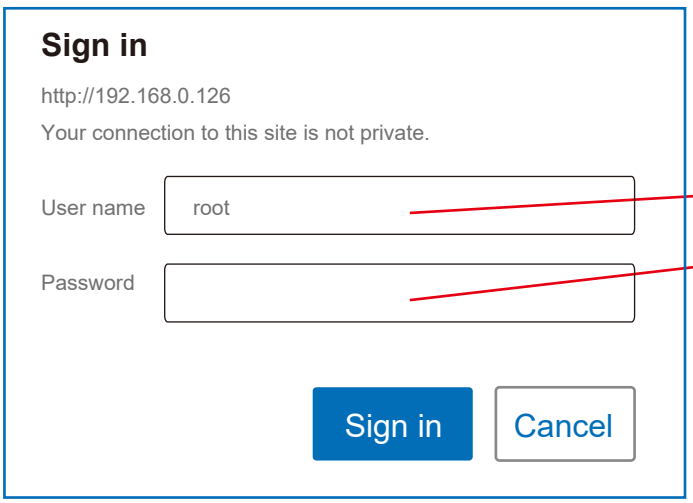
[! " # $ % & ' ( ) * + , - . / : ; < = > ?

@ [ ] ^ _ ` { | } ~ ***space***]

Root password

“Root password” is used for the authorization of the administrator.

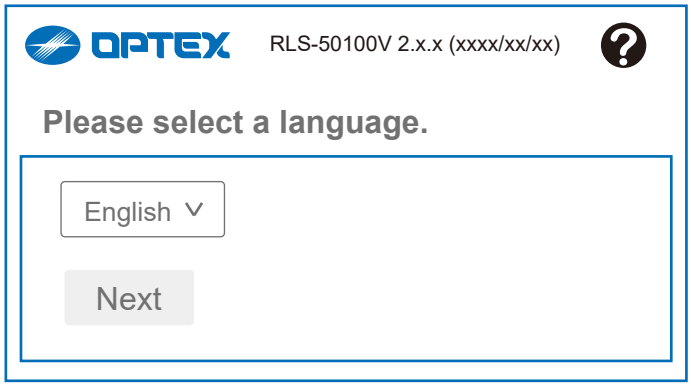
It must be configured before starting the settings through this software.



1-2. Sign in

User name: root

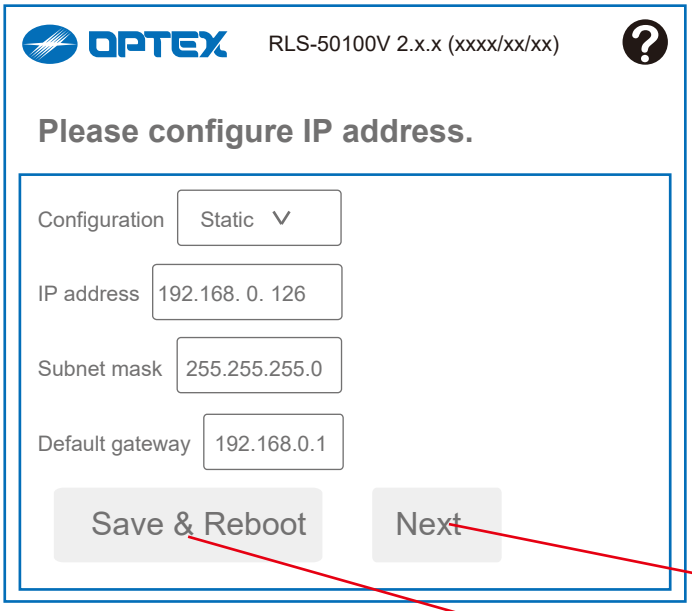
Password: As you created in the previous section



1-3. Select Language

Select language to be used in this software.

Default: English



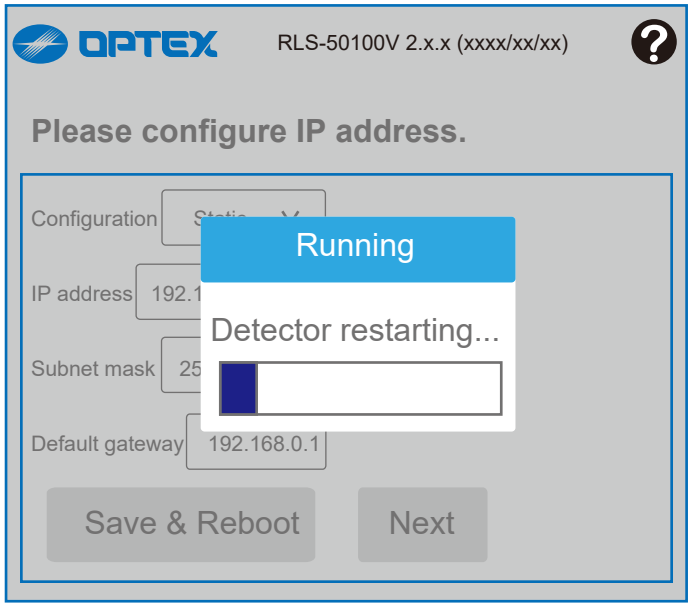
1-4. Configure IP address

Configure the IP address of the gear running this software.

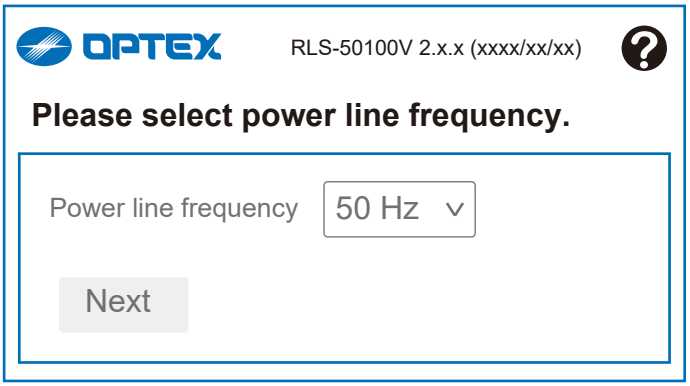
Configuration: [static, DHCP]
IP address: ***default 192. 168.0.126***
Subnet mask: ***default 255.255.255.0***
Default gateway: ***default 192.168.0.1***

Next: Go to next item ***without*** any changing.

Save & Reboot: Save the changing, and reboot automatically.

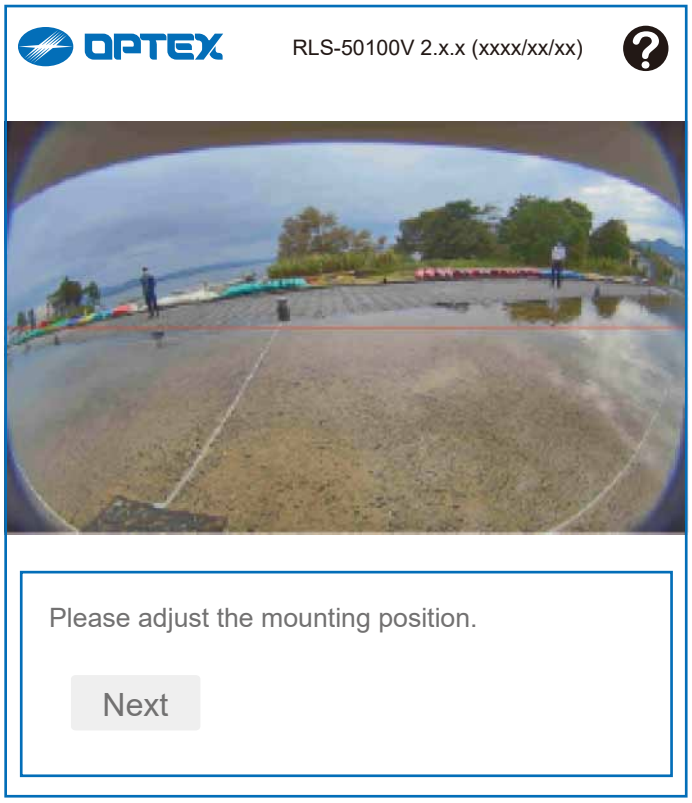


Wait for the reading the settings .... .



1-5. Select power line frequency

Select power line frequency [50 Hz, 60 Hz]

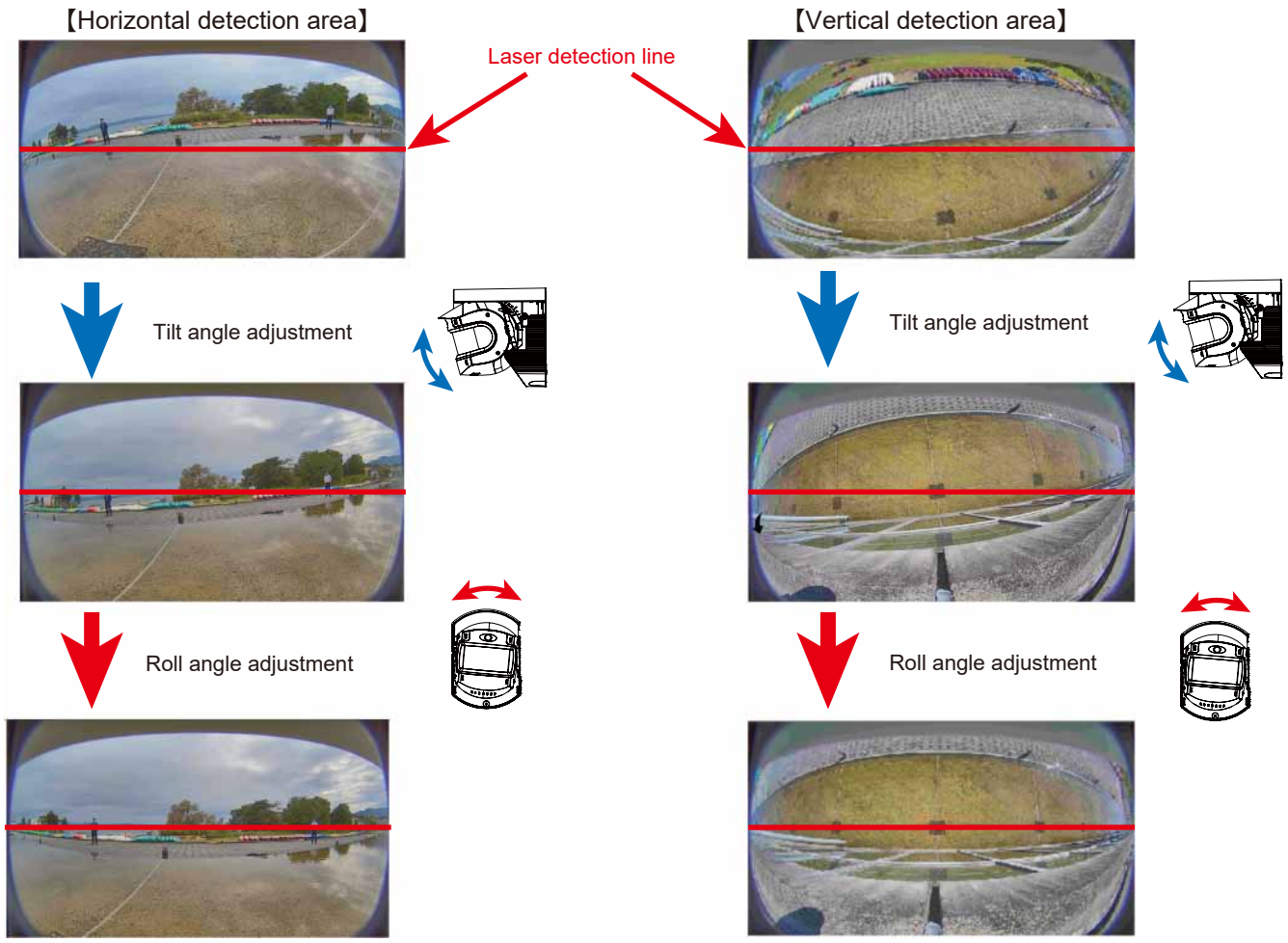


1-6. Adjust the mounting position.

Adjust the mounting position while checking the camera image.

Refer to the following pages for the procedure.

Adjusting with image checking



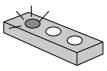
Angle Adjustment

A fine angle adjustment with LAC-1

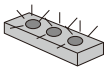
Adjust the position of laser path with LAC-1 which provides LED and sound when it receive infrared beams to secure required detection area.

< HINTS >

3 LED' s indicate detection area sensitivity independently to locate high sensitive area precisely.



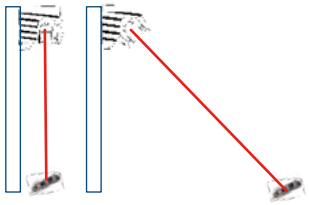
If one of 3 LED' s is blinking quickly, it stays in high sensitive area but the others do not.



If all 3 LED' s are blinking auickly, all stay in high sensitive area, namely LAC-1 is located parallel to detection area.

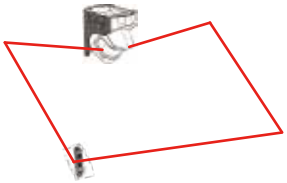
Angle adjustment for tilt direction

1. Aim LAC-1 towards REDSCAN Pro and move LAC-1 slowly where the detection area exists.
2. Tilt the REDSCAN Pro (＋5 and -95 degree) until the laser comes to the targeted position.

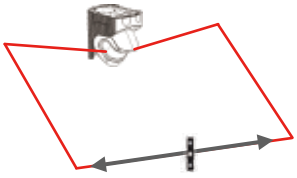


Angle adjustment for rolling direction

1. Do as same as the left.
2. Roll the REDSCAN Pro (+/-5 degrees) until the laser comes to the targeted position.



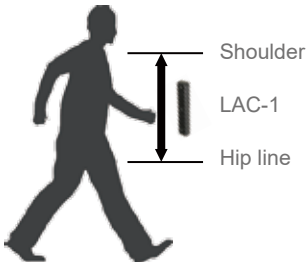
3. Check that the laser beams are targeted to the desired areas and there is no obstacles in the detection area.

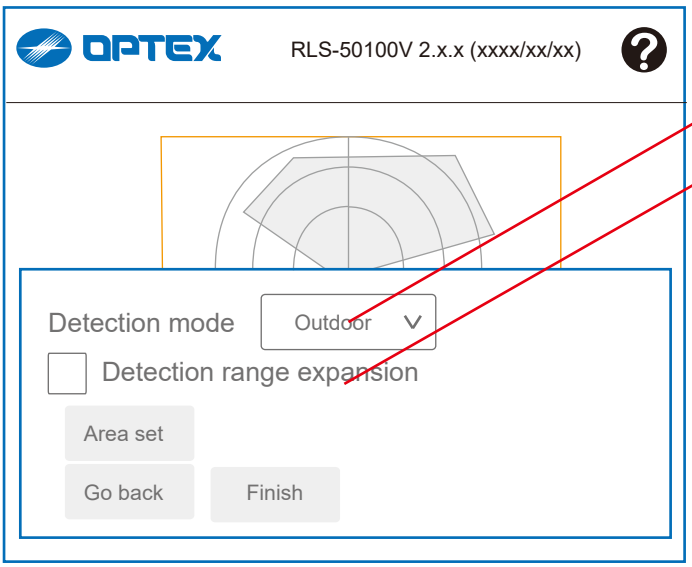


Check if the laser beams are targeted to the desired areas by the way described on the next steps.

Instruct a person hold the LAC-1 and stand at either side edge of required protection area. The person should hold LAC-1 in front of their body between shoulder and hip line.

Adjust the position of laser beams by moving the main unit slowly so that LAC-1 blinks.





1-7. Detection

Detection mode: [Outdoor, Indoor]

Detection range expansion:

-> See the column below for details

Area set

Go back

Finish

Detection mode

Outdoor Mode:

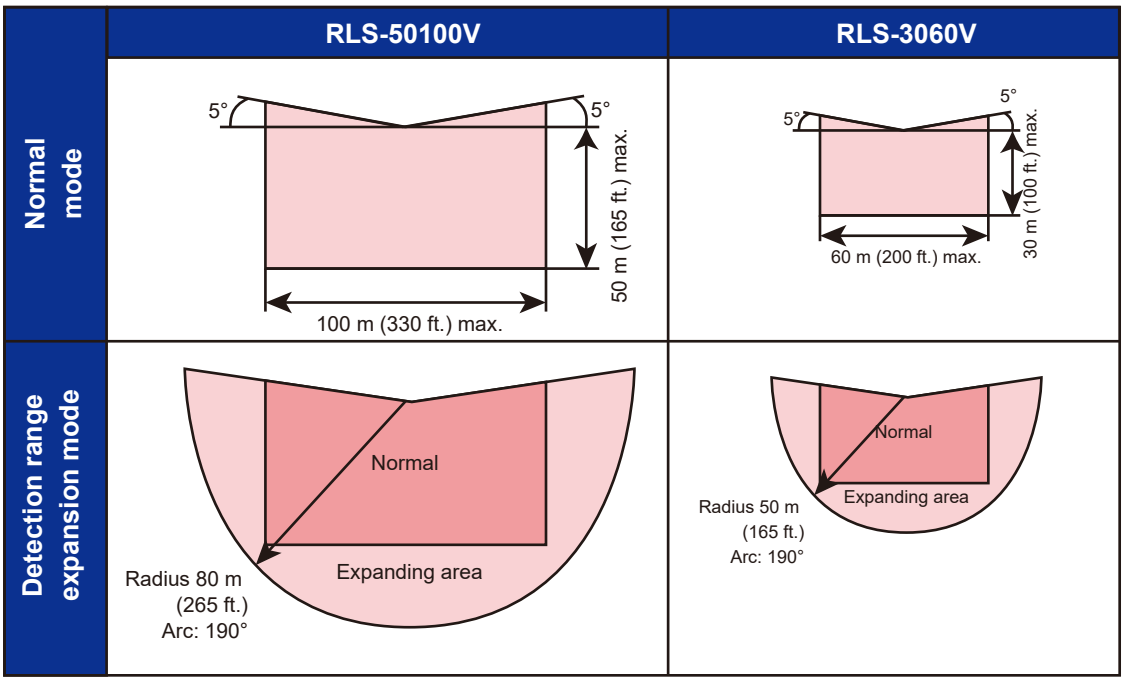
This option can be selected for general outdoor applications. In this mode, the special algorithm works to reduce false alarms caused by weather conditions (e.g. rain, snow or fog). In order to reduce false alarms under harsh environment, the Environmental Resistance function is available.

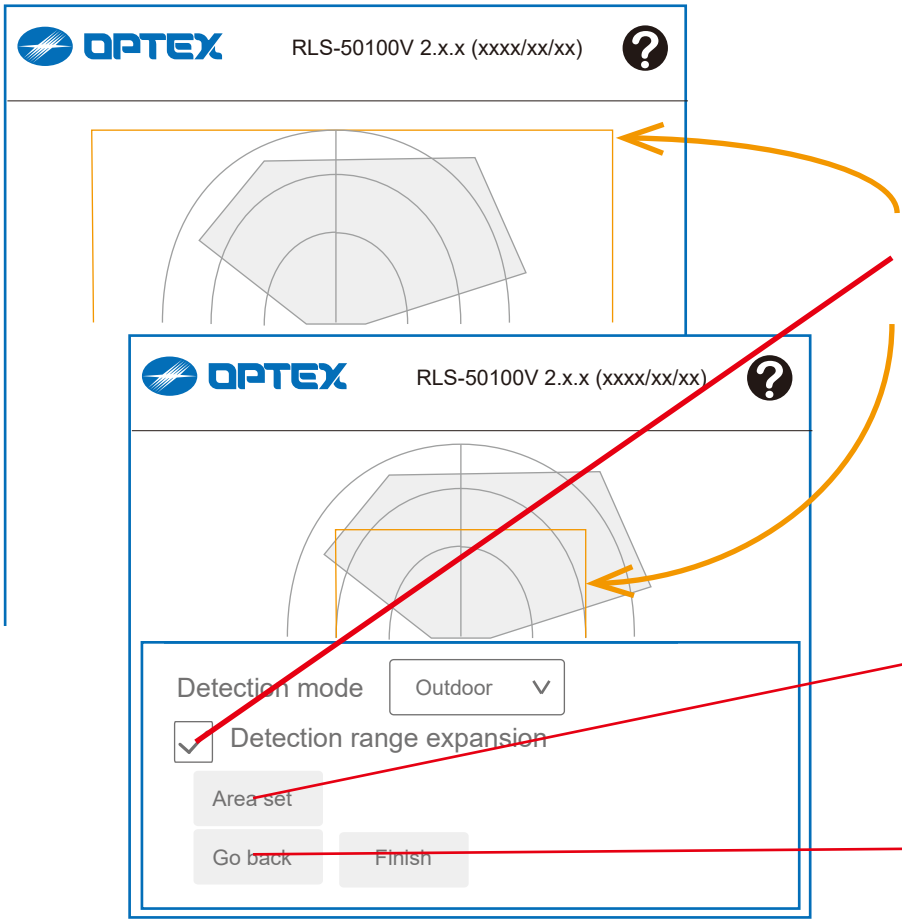
Indoor Mode:

For general indoor applications. In this mode, Environmental Resistance and DQ Output are disabled.

Detection Range Expansion Mode

The detection range of REDSCAN Pro can be extended to 50 - 80 m and become a fan shape of Arc 190°





Detection range expansion

Detection range expansion

Area set

Start the area scanning and then setting.
Click to pop-up open the confirmation window, and start the area scanning after OK is clicked.

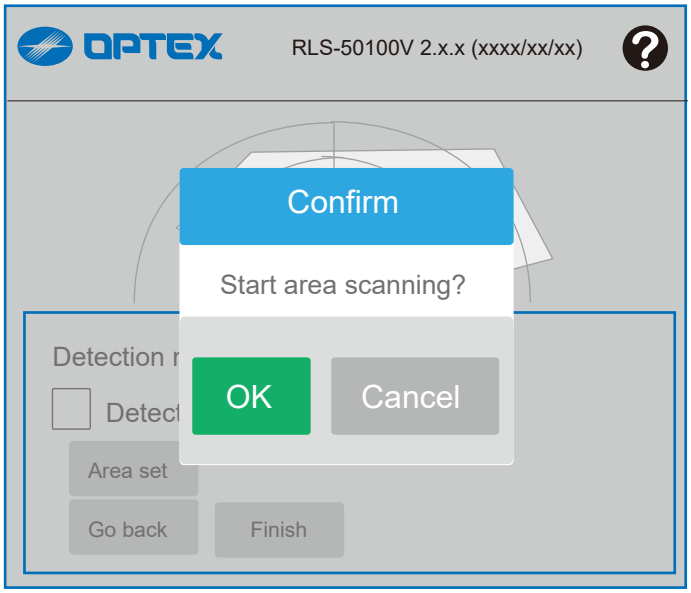
Go back

Back to the previous item without an area set.

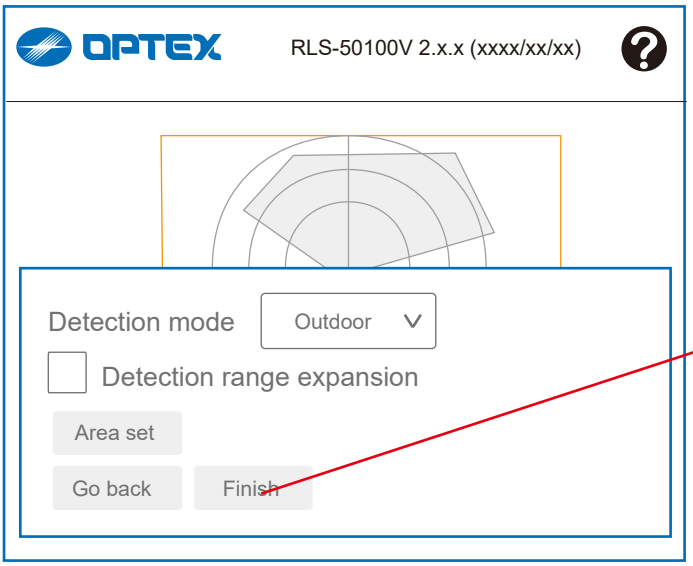
Area setting

"Area setting" enables to learn background of the area. The background information is base for decreasing false alarm.

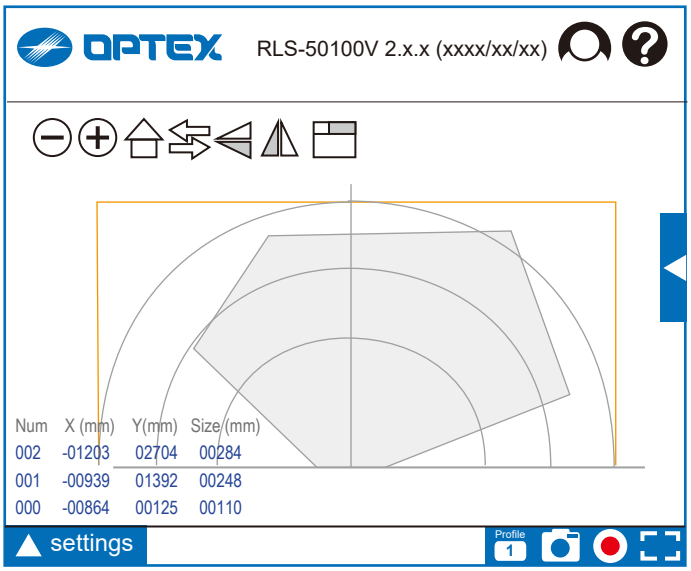
**** Do not enter the detection area during area setting.***



Area scanning start .... .

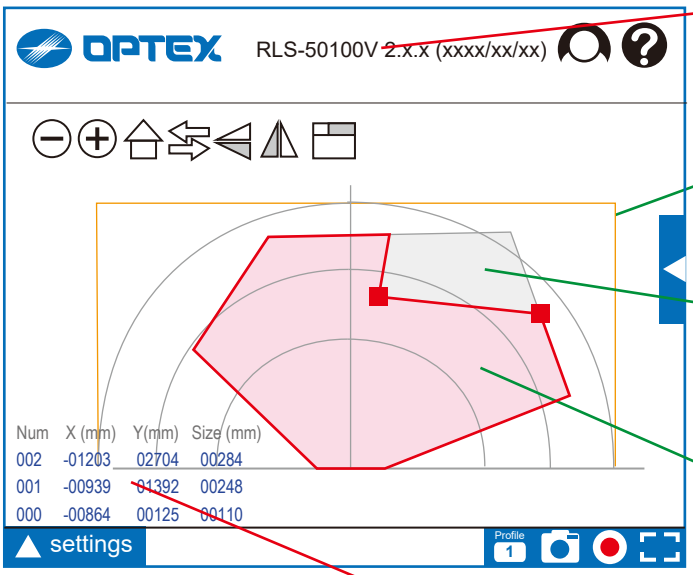


The last screen of the “1. Initial configuration” .
Push the button to finish this procedure.



The “Home view” screen appears after the
“1. Initial configuration” process has been completed.

2-1. Home view



RLS-50100V 2.x.x (xxxx/xx/xx)

Indication of the software version and the update date.

Detection range

Limit the detection area.

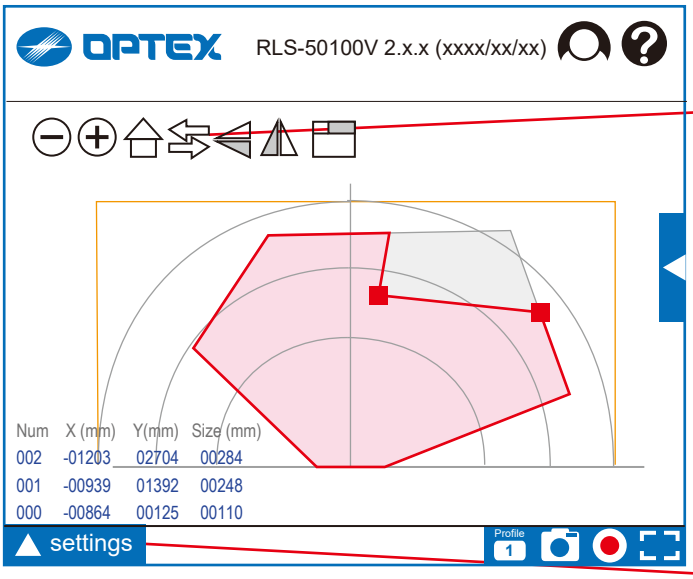
Sensing area

The location displayed in gray is the area actually detected by the laser sensor.

Detection area

You can create the detection area by processing the sensing area, such as cutting, masking or allocating so on, within the detection range.

Indicator of the intrusion number, location and size

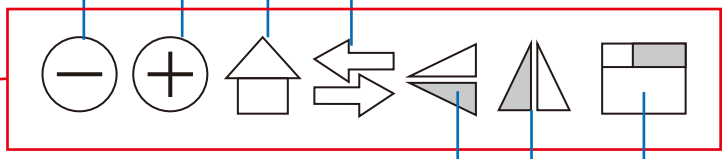


Zoom out

Zoom in

Back to the home position

Switching between the home view and camera view



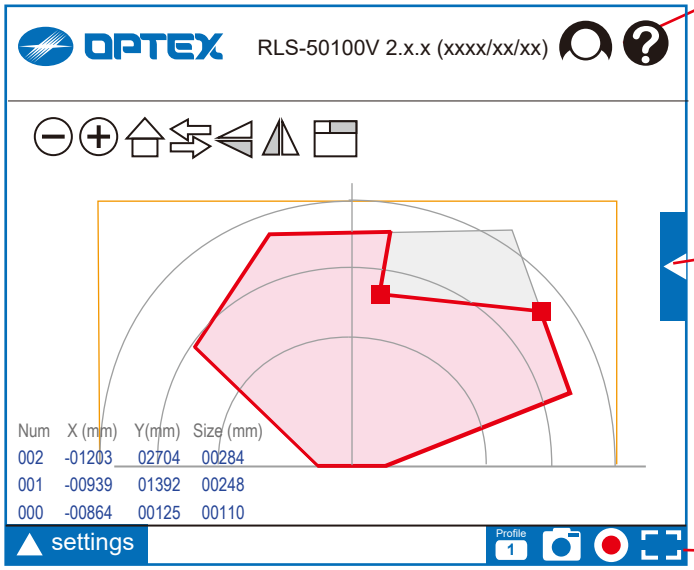
Flip vertical

Flip horizontal

Open the window for the home view or the images

Call the setting window

Click to open the windows for the settings.



Personal figure; who is log in.

Guide; Click to open the separate window.

Status display

Click to display the status.

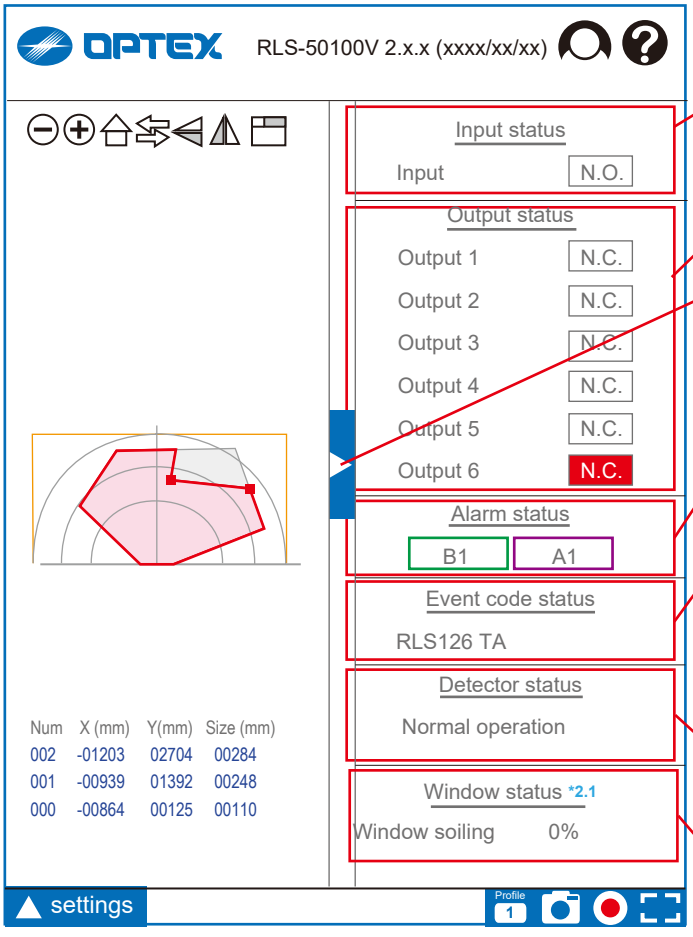
Switch the profile displayed

Snap shot

Recording Start/Stop

Full screen

2-2. Status display



Input status [N.C., N.O.]

Current input is shown in red.

Output status [N.C., N.O.]

Current output is shown in red.

Status display

Click to slide open/close.

Alarm status

Current alarm status is shown in red.

Event code status

All the codes ***(R.E.C. = REDSCAN Event Code)*** that currently output are listed.

R.E.C. (REDSCAN Event Code)

A1, A11, A12 .... B1, B11, B12 .....: Zone alarm

AM: Anti-Masking

AR: Anti-Rotation

DQ: Environmental Disqualification

DM: Device Monitoring

MO: Master Alarm

SO: Soiling

TA: Tamper Output

TR: Device Trouble

Detector status

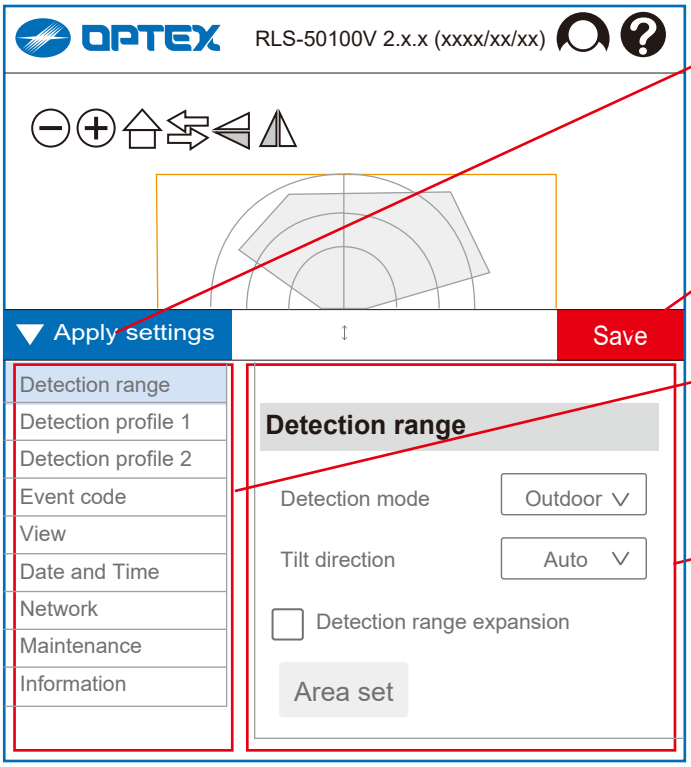
[Normal operation, Hardware error, Over heat

Camera error, Others error]

Window status *2.1 (Ver.2.1 or later)

The dirt rate of the window is displayed in %.

2-3. Setting display



Apply settings

Click to apply changings, to close the settings window and to restart the process.

Save the settings

Click to save the set parameters.

Menu window

List the setting menu

Selected item is turned in blue.

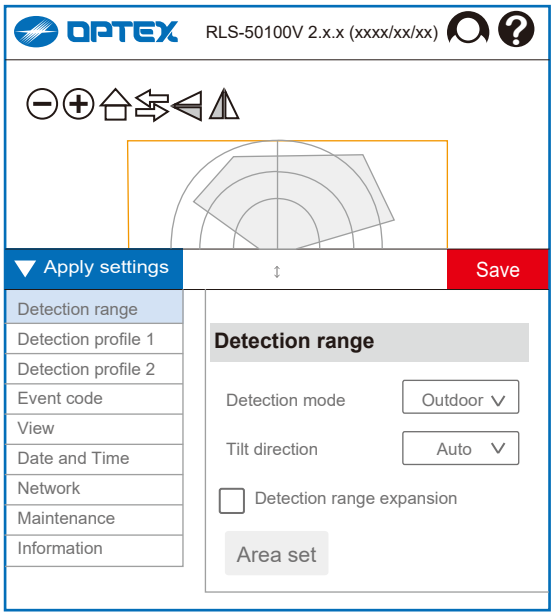
Setting window

Display the setting item.

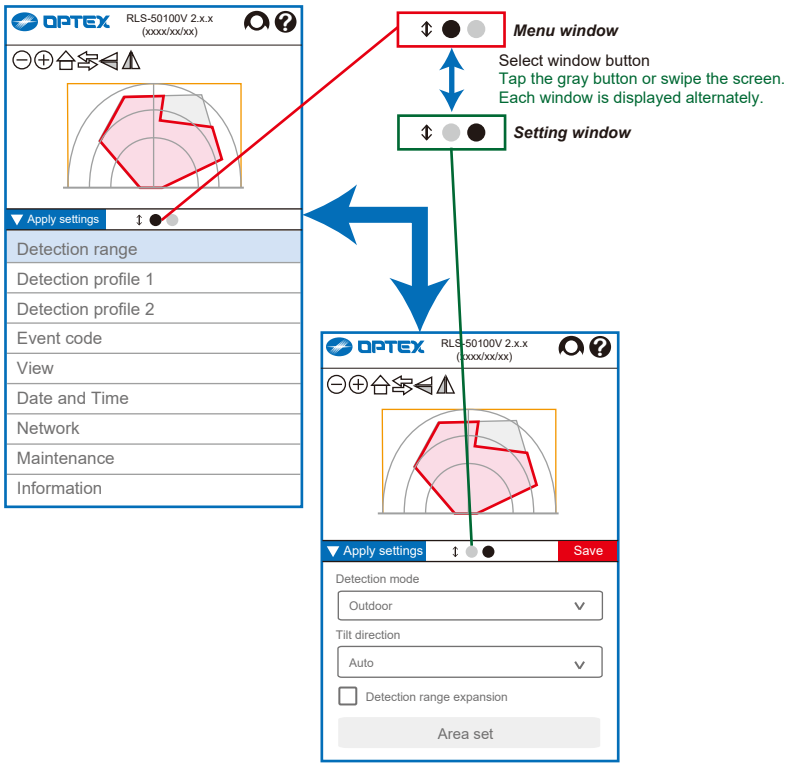
Setting display for a Smart Phone

On the setting screen for PC, menus and settings are displayed on one screen, while for smartphones, both are manually switched and displayed.

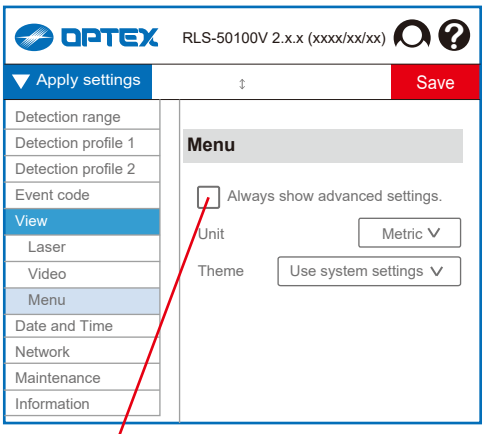
Settings for a PC display



Settings for a Smart Phone



3. ONVIF settings

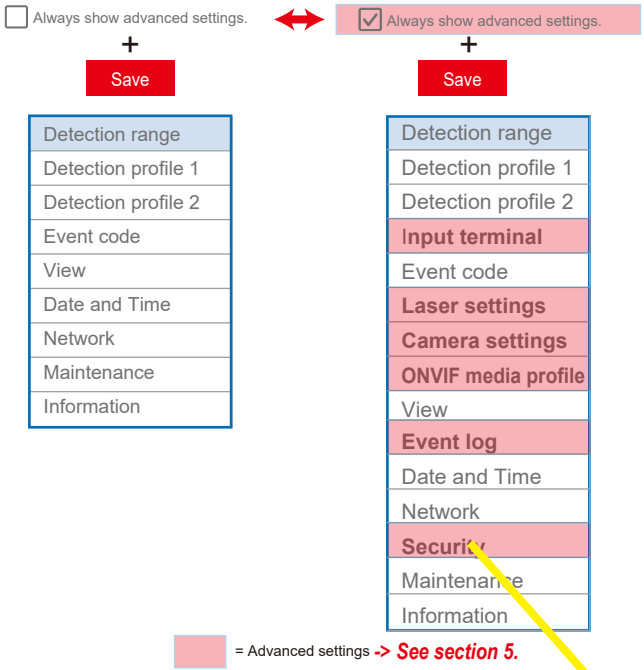


REDSCAN Pro series supports ONVIF and RTSP.
Client application can get video stream of embedded camera in REDSCAN Pro series.
Username and password are common to ONVIF and RTSP.
Even if ONVIF is not used, create ONVIF account by the sequence below to use RTSP authentication.

ONVIF
ONVIF is an open industry forum that provides and promotes standardized interfaces for effective interoperability of IP-based physical security products. See the site below for details. Specifications are downloadable.
https://www.onvif.org/

ONVIF Device manger is popular tool in the industry. It enables accessing and testing ONVIF device. See the site below for details.
https://sourceforge.net/projects/onvifdm/

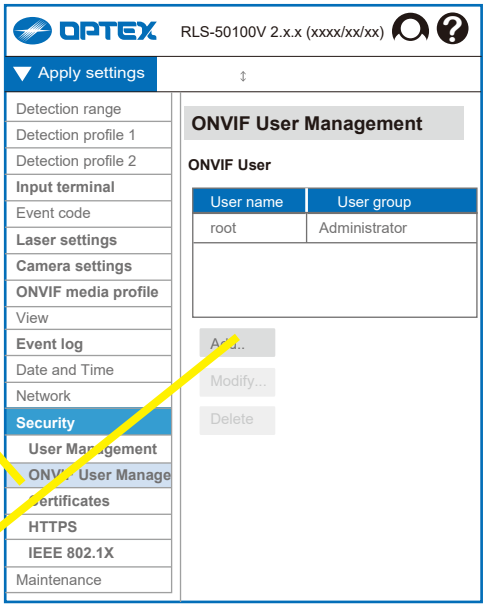
Always show advanced settings

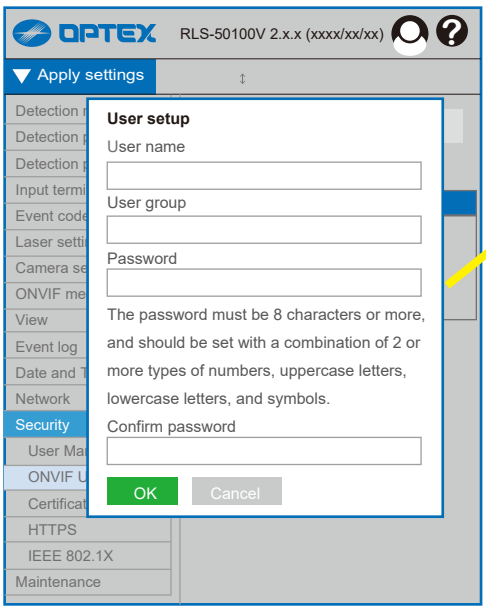


= Advanced settings ***-> See section 5.***

3-1. To use ONVIF

[1] Select "View" then "Menu".
[2] Click "Always show advanced settings".
[3] Select "Security" then "ONVIF User Management"
[4] Following items are set by default.
User name: root
User group: Administrator
Password: ***As you set it as the initial value*** ***-> Secc 1-1. Configure root password***
Add or modify them, if you need.

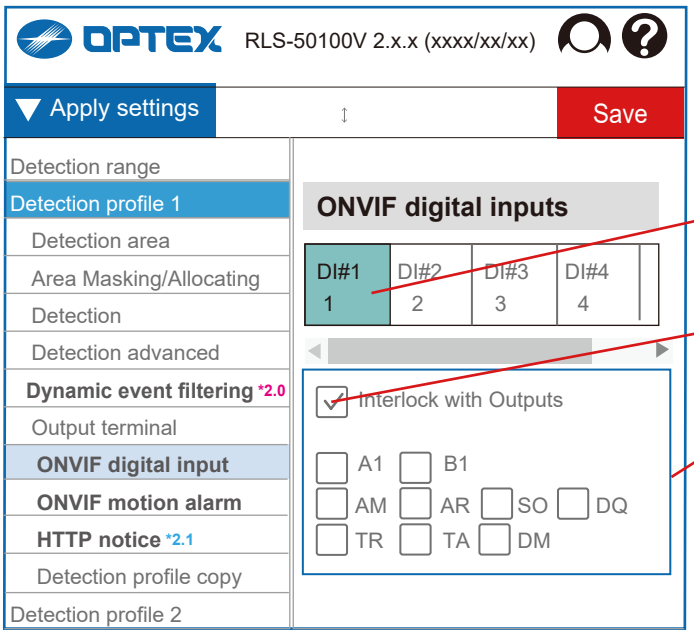




User setup
User name
User group
Select user group that is defined by ONVIF.
Password
The password must be 8 characters or more, and should be set with a combination of 2 or more types of numbers, uppercase letters, lowercase letters, and symbols.
Confirm password
OK
Cancel

3-2. ONVIF menu on Profile 1 and 2

When set the "Always show advanced settings" to enable,
2 ONVIF menu items appear on each Profile 1 and 2.



(Bold letters = advanced settings)
***2.0** = Ver.2.0 or later
***2.1** = Ver.2.1 or later

4-2-6. ONVIF digital inputs

Can set the each terminal individually according to the ONVIF format.

Select the terminal for settings

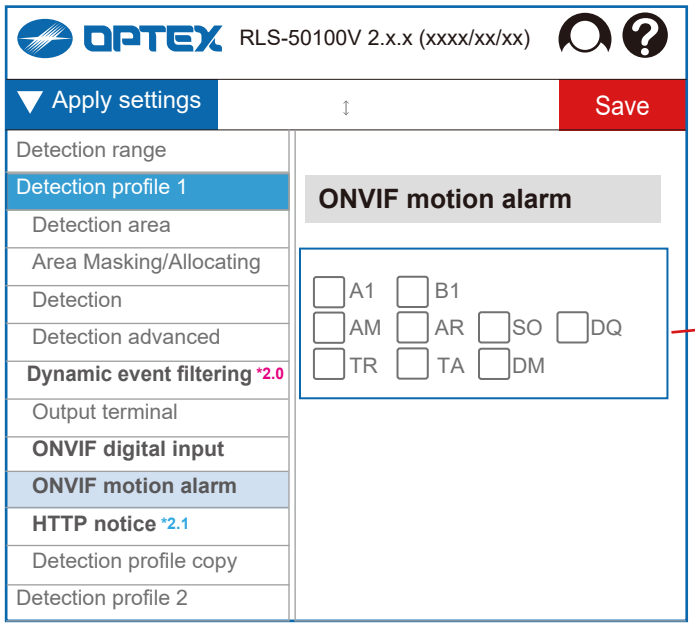
[DI#1, 2, 3, 4, 5, 6]

Interlock with Outputs

Select events

[A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, AM, AR, SO, DQ, TR, TA, DM]

Respond when the selected event occurs.
The choices appear only when “Interlock with Outputs” is not selected.



(Bold letters = advanced settings)
***2.0** = Ver.2.0 or later
***2.1** = Ver.2.1 or later

4-2-7. ONVIF motion alarm

Can set the ONVIF motion alarm responding to the select events.

Select events

[A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, AM, AR, SO, DQ, TR, TA, DM]

Respond when the selected event occurs.

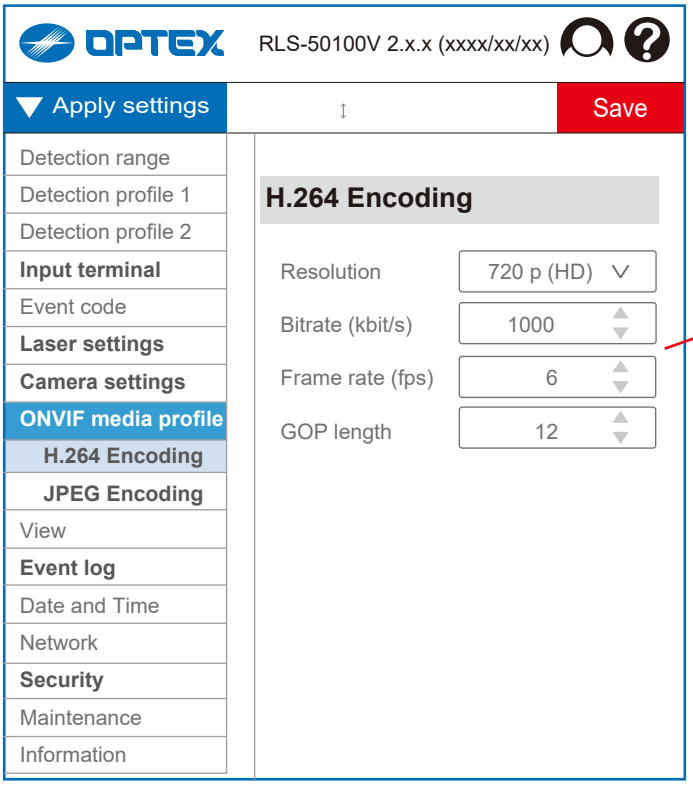
R.E.C. (REDSCAN Event Code)

A1, A11, A12 .... B1, B11, B12 .....: Zone alarm
AM: Anti-Masking
AR: Anti-Rotation
DQ: Environmental Disqualification
DM: Device Monitoring
MO: Master Alarm
SO: Soiling
TA: Tamper Output
TR: Device Trouble

3-3. ONVIF menu on Advanced settings

When set the "Always show advanced settings" to enable,

2 ONVIF menu items also appear on ONVIF media profile.



(Bold letters = advanced settings)

5-5. ONVIF media profile

5-5-1. H.264 Encoding

Resolution

[720 p (HD), 360 p, 180 p]

Bitrate (kbit/s)

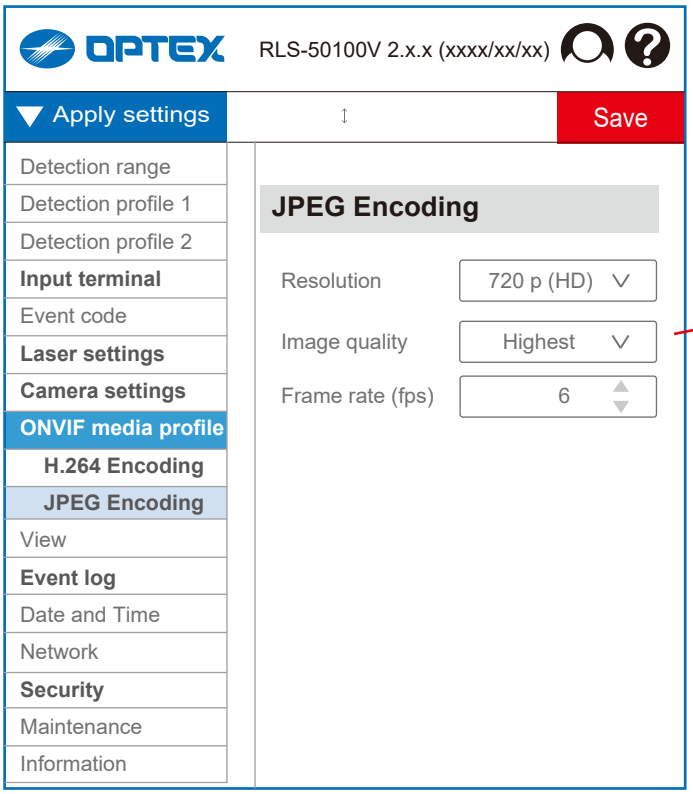
[200 to 2,000]

Frame rate (fps)

[1 to 10]

GOP length

[5 to 50]



(Bold letters = advanced settings)

5-5-2. JPEG Encoding

Resolution

[720 p (HD), 360 p, 180 p]

Image quality

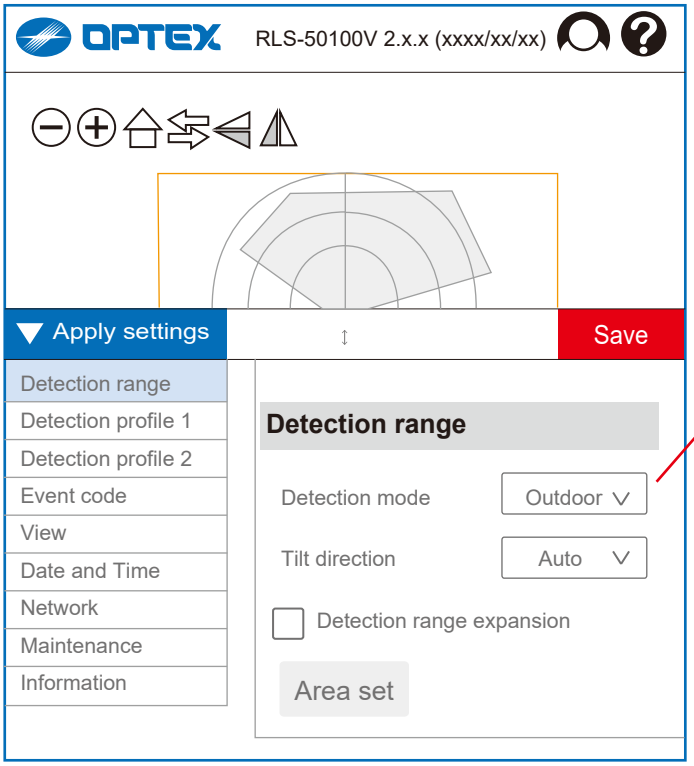
[Highest, High, Normal, Low, Lowest]

Frame rate (fps)

[1 to 10]

4-1. Detection range

These items are already set in "Initial settings", in normal process, so there is no need to set these items again. Modify the parameters only when you need to change them.



Detection mode **[Outdoor, Indoor]**

Tilt direction **[Vertical, Horizontal, Auto]**

"Auto" setting allows to detect the direction in the "Area setting" and set the method automatically.

Use in default "Auto" setting normally.

Detection range expansion

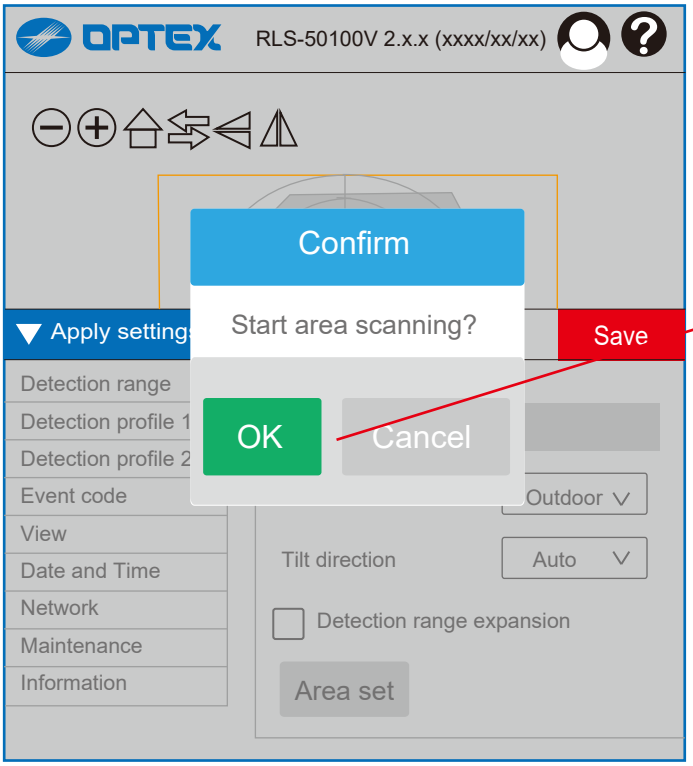
RLS-50100V

[50 m x 100 m rectangle, 80 m x 190° fanshape]

RLS-3060V

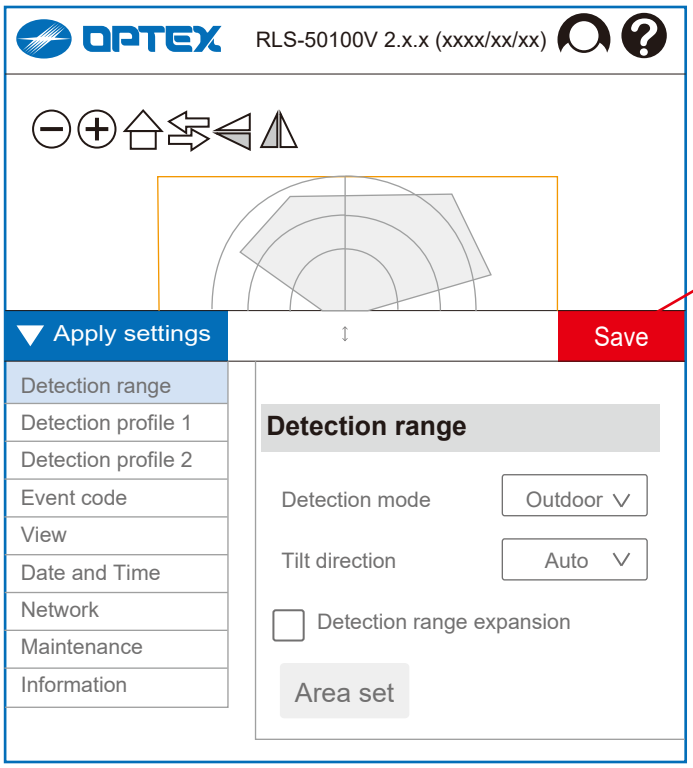
[30 m x 60 m rectangle, 50 m x 190° fanshape]

Area set



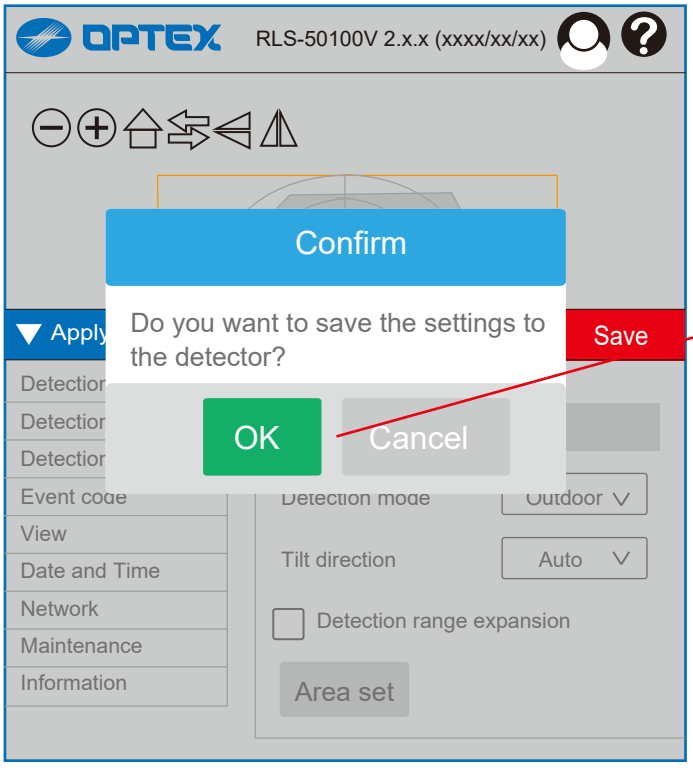
Confirmation 1

Click "OK" to start the area setting, or "cancel" it.



Save the settings

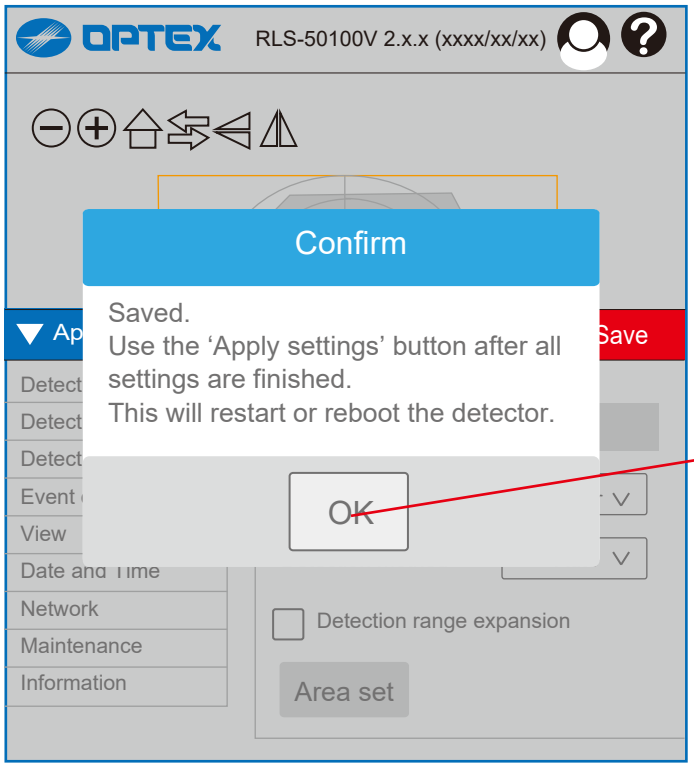
Click to save the detection range settings.



Confirmation 2

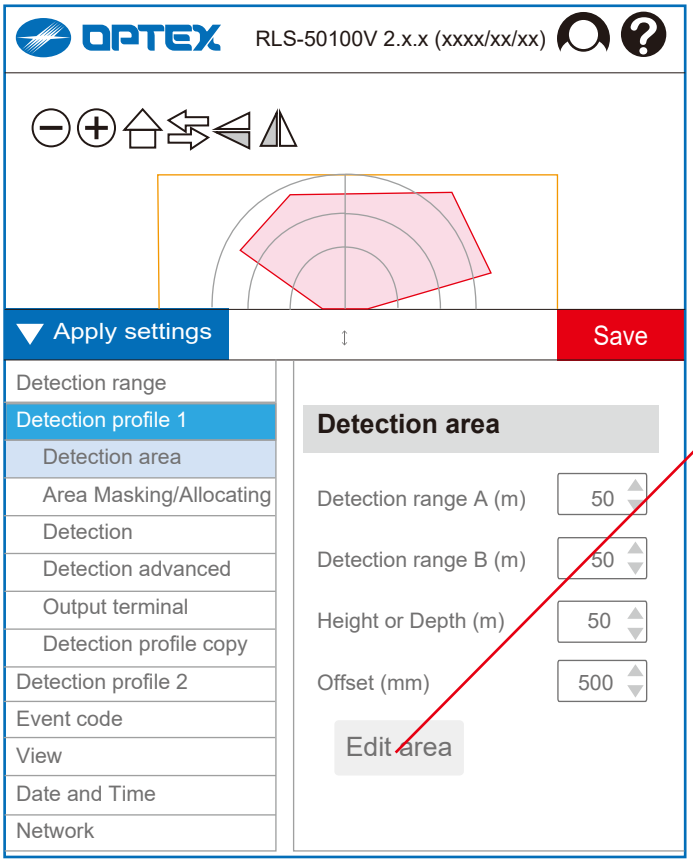
After click “Save” button, other confirmation window appears.

Click “OK” or “Cancel” to progress the procedure.



Confirmation 3

Final confirmation of the detection range settings, after saving them.



4-2. Detection profile 1

4-2-1. Detection area

	RLS-50100V	RLS-3060V
Detection range A (m)	[0 to 50]	[0 to 30]
Detection range B (m)	[0 to 50]	[0 to 30]
Height or Depth (m)	[0 to 50]	[0 to 30]
Offset (mm)	[0 to 1,000 (= 1 m)]	

Edit area

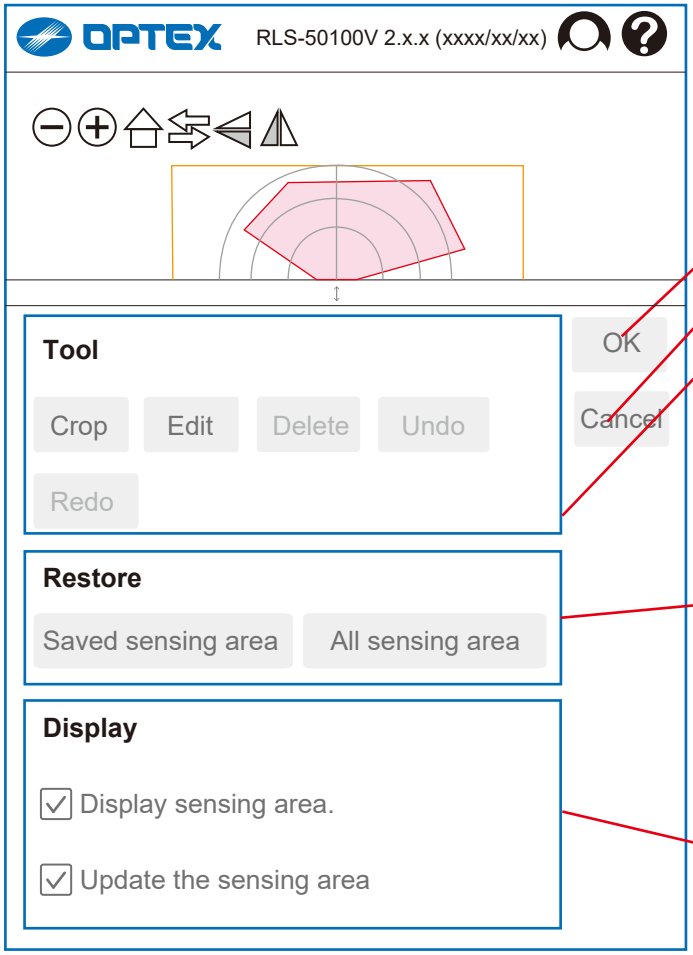
Open the separate window to edit the detection area.

Detection Range

Detection area can be limited by "range A" , "range B" and "Height or Depth." Yellow line will indicate the effective detection range after settings are completed.

Offset

Perimeter of detection area near background can be excluded by the Offset distance. In vertical mode, obstacles on the ground or floor can generate false alarm. Also, plants and small animals can cause false alarm.



**** View window can be moved by dragging, when any "tool" is not selected.***

OK: save the edited results.

Cancel: undo the edited results.

Tool

Crop: cutting the detection area partially.

Edit: adjust the shape of the cutting area.

Delete: cancel the cutting of the detection area.

Undo: return to the previous shape of the detection area.

Redo: cancel "undo" .

--> See the Example bellow for details.

Restore

Saved sensing area:

revert the sensing area to the saved one.

All sensing area:

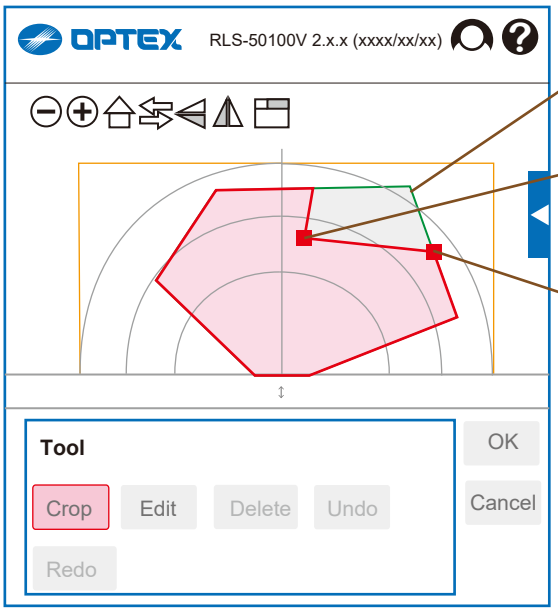
setting the detection area so as to cover all sensing areas.

Display

Display the sensing area.

Update the sensing area.

Example



Initial scan area

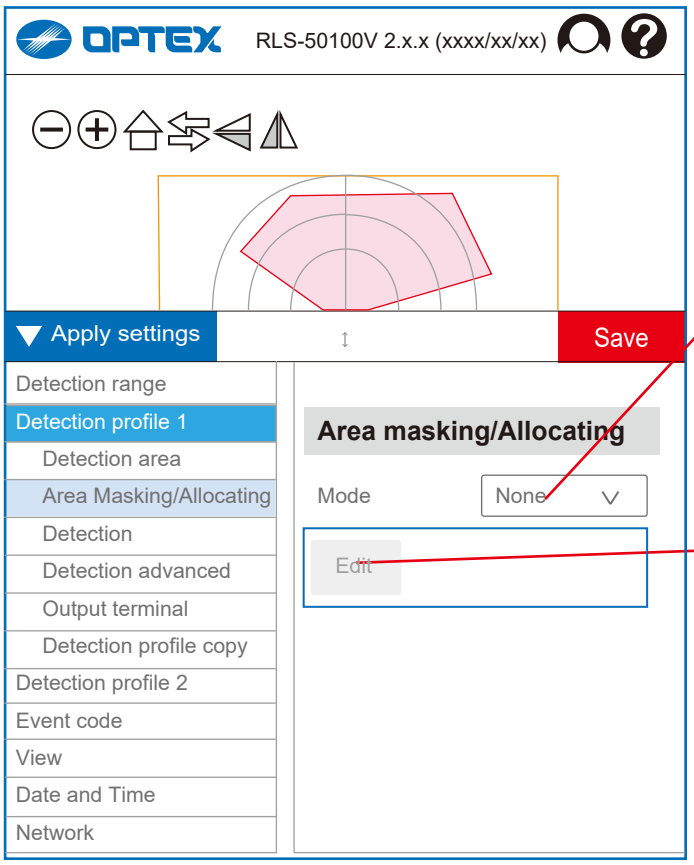
The shape at the time of area setting is displayed in green line.

Cutting by "Crop"

The side farther than the cutting line is excluded from the detection area.

Adjusting by "Edit"

The shape of the cutting area can be adjusted.



4-2-2. Masking/ Allocating

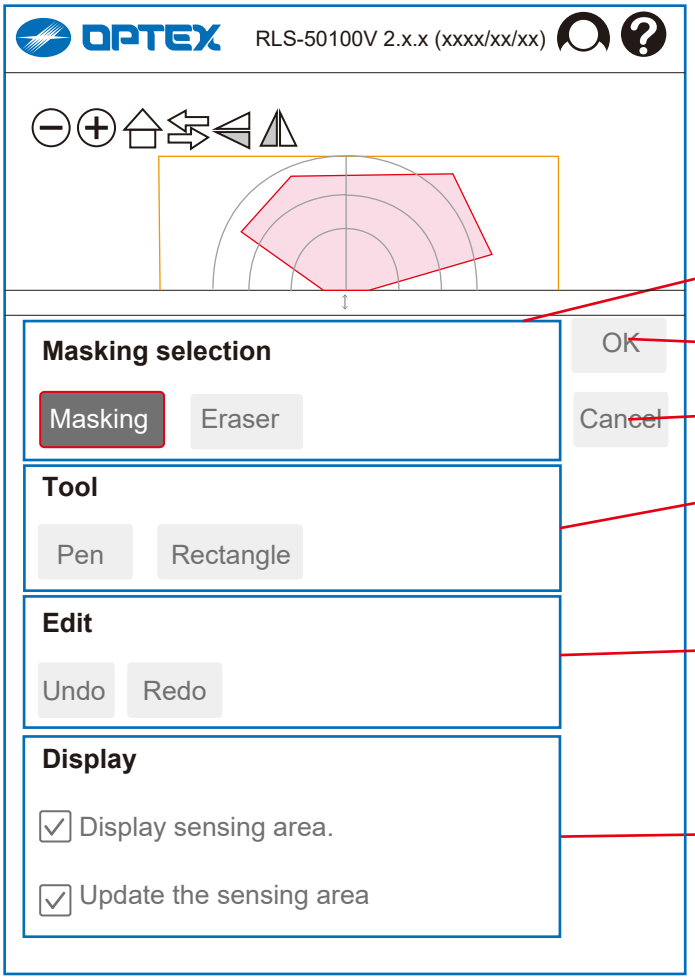
Mode [None, Mask, Allocating]

Mask: masking area is available to ignore some area and reduce false alarm.

Allocating: allocated areas are available to distinguish where objects are detected.

Edit the masking/ allocating

Open the separate window to edit masking/allocating.



4-2-2-1. Masking

**** View window can be moved by dragging, when any "tool" is not selected.***

Masking selection

Select masking or erasing.

Save the edited results.

Cancel the edited results.

Tool

Select Pen or Rectangle.

--> See the explain on the next page for details.

Edit

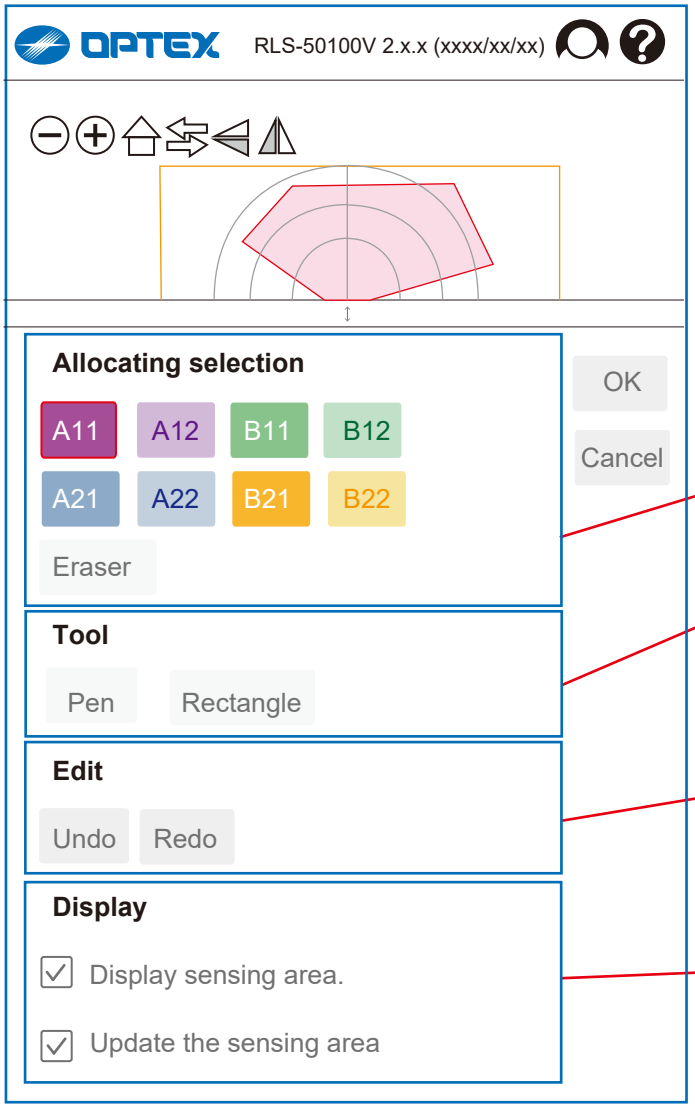
Undo: return to the previous settings.

Redo: cancel "undo" .

Display

Display the sensing area.

Update the sensing area.



4-2-2-2. Allocating

Allocation selection

Select one to allocate.

Tool

Select Pen or Rectangle.

--> See the explain below for details.

Edit

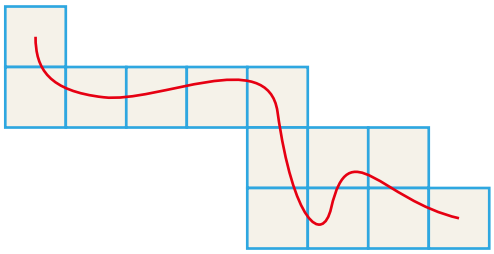
Undo: return to the previous settings.

Redo: cancel “undo” .

Display

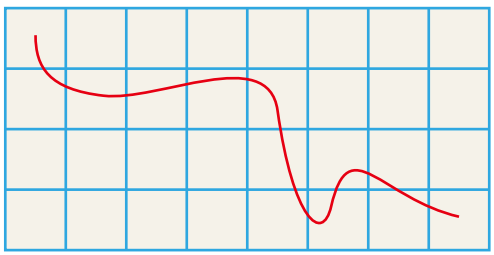
Display the sensing area.

Update the sensing area.



Selecting sections by “Pen” tool

Sections through which the pen passed are selected.



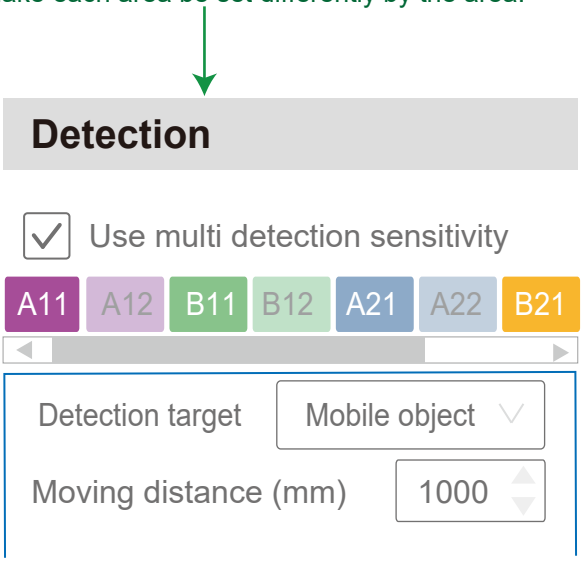
Selecting sections by “Rectangle” tool

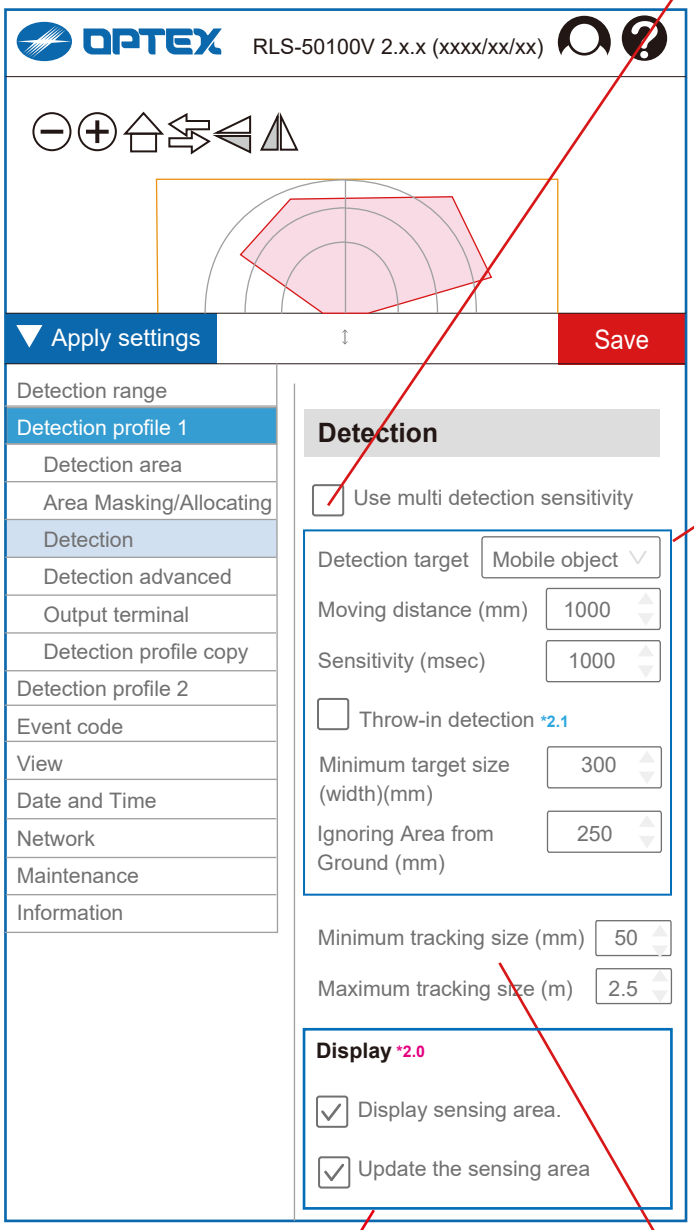
Quadrilateral sections between the start and end points are selected.

4-2-3. Detection

Multi settings

If “Use multi detection sesitivity” is selected, it can make each area be set differently by the area.





Detection target [Mobile object, Presence]

Moving distance (mm) *Mobile object only*
[500 to 10,000 (= 0.5 to 10 m)]
The Moving distance is to avoid false alarm caused by static obstacles. If an object is detected longer than the moving distance, alarm is issued.

Sensitivity (msec.) *Presence only*
[100 to 900,000 (= 15 min.)]
The Sensitivity is to avoid false alarm caused by instantaneous event. If an object is detected longer than the Sensitivity time, alarm is issued.

Throw-in detection *2.1 (Ver.2.1 or later) *Presence only*
Detects objects that pass quickly through the detection area, such as thrown objects. Since it detects instantly, the risk of false alarm increases depending on the environment.

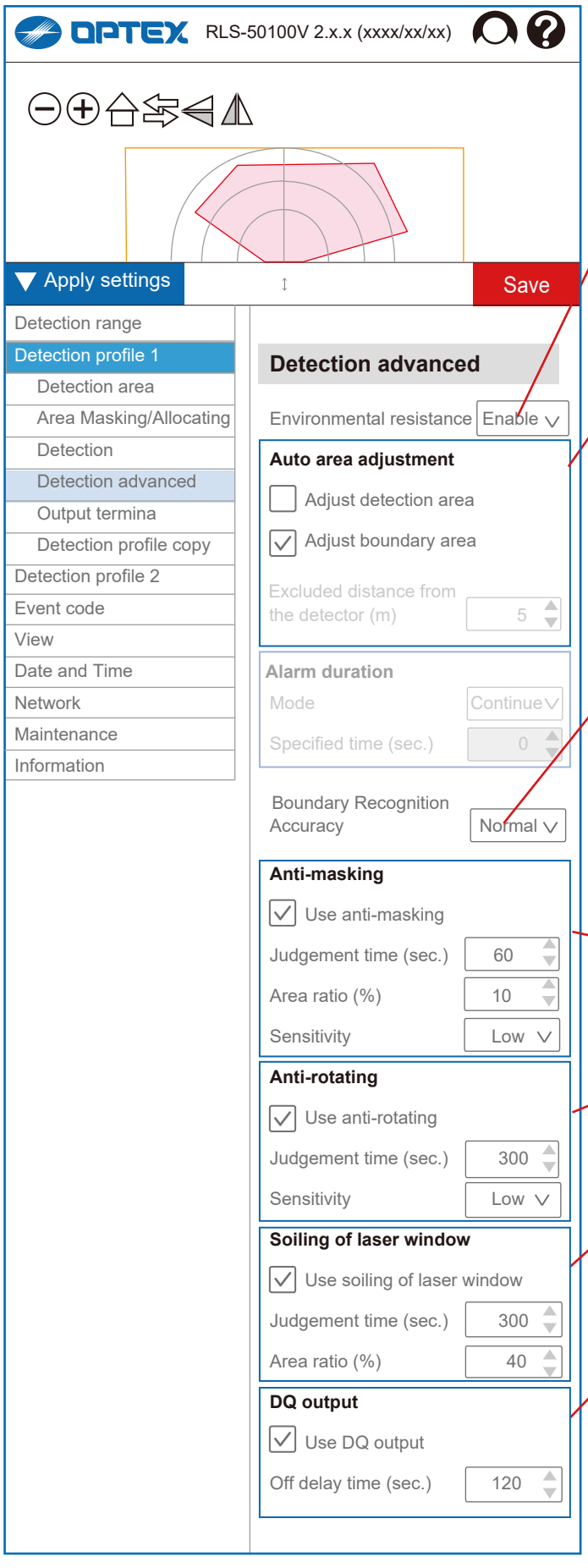
Minimum target size (width) (mm)
[10 to 1,000 (= 1 m)]
The Size is to avoid false alarm caused by small object. If an object is smaller than Minimum Target Size, the object is ignored.

Ignoring Area from Ground (mm) *Vertical mode only*
[1 to 5,000 (= 5 m)]
Objects near to ground are ignored. Enter the height of the ignoring area.

Minimum tracking size (mm) [10 to 1,000 (= 1 m)]
If an object is smaller than Minimum Tracking Size, the object is ignored. After an object is detected, the object is tracked while the size is larger than Minimum Tracking Size.

Maximum tracking size (m) *RLS-50100V* [1 to 50] *RLS-3060V* [1 to 30]
If an object is bigger than Maximum Tracking Size, the object is ignored. After an object is detected, the object is tracked while the size is smaller than Maximum Tracking Size.

Display *2.0 (Ver.2.0 or later)
Display the sensing area.
Update the sensing area.



4-2-4. Detection advanced

1. Common items for Horizontal/Vertical mode

Environmental resistance *Outdoor mode only*
[Disable, Enable, Enhanced]

Disable: Response time of alarm is minimum but false alarm can increase in harsh environment such as a fog or snow.
Enable: False alarm can be reduced by balanced detection ability.
Enhanced: False alarm due to fog or snow is reduced, but response time is long and some objects may not be detected.

Auto area adjustment

REDSCAN continues to learn background area and update background information gradually. By checking Adjust Detection Area, the detection area is adjusted proportionally to the background. (i.e. False alarm by snow can be reduced.)

Adjust detection area

When enabled, adjusts the detection area. To adjust the detection area, Adjust boundary area must be enabled.

Adjust boundary area

When enabled, adjusts the boundary area.

Boundary Recognition Accuracy [Low, Normal, High]

By changing this parameter that defines the accuracy for the recognition of the boundary (e.g. wall, floor, ground), the unit may easily detect the target which locates near the boundary.

Default value is Normal. “High” can be selected.
Higher accuracy condition, the unit can detect the target near the boundary, on the other hand, there is a possibility that it makes false alarms by noise from the surface.

So, need to conduct the test to check its affect carefully at the actual site before operation .

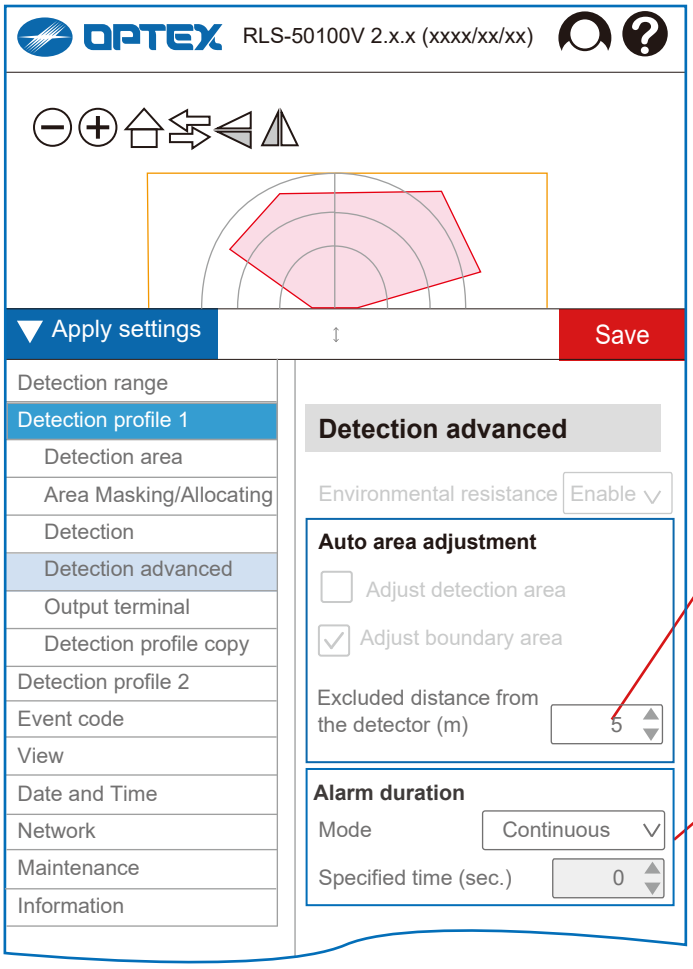
Anti-masking enable
Judgement time (sec.) [1 to 600 (= 10 min.)]
Area ratio (%) [10 to 100]
Sensitivity [Low, Middle, High]

Anti-rotating enable
Judgement time (sec.) [1 to 600 (= 10 min.)]
Sensitivity [Low, Middle, High]

Soiling of laser window enable
Judgement time (sec.) [1 to 600 (= 10 min.)]
Area ratio (%) [10 to 100]

DQ (Disqualify) output enable
Off-delay timer (sec.) [1 to 600 (= 10 min.)]

Anti-Masking
Detects obstacles which mask the detector.
Anti-Rotation
Detects that the unit is rotated.
Soiling of the Window
Detects dirt is soiling detector window.
DQ (Environmental Disqualification) output
Detects harsh environment, fog, rain, or snow for example.



2. Horizontal mode

Excluded distance from the detector (m)

RLS-50100V [0 to 50 rectangle, 0 to 80 fanshape]

RLS-3060V [0 to 30 rectangle, 0 to 50 fanshape]

In horizontal mode, learning area can be limited to this parameter. Changes in this parameter are learned as background.

Alarm duration *Mobile object only*

Mode [Continuous, Preset]

Continuous:

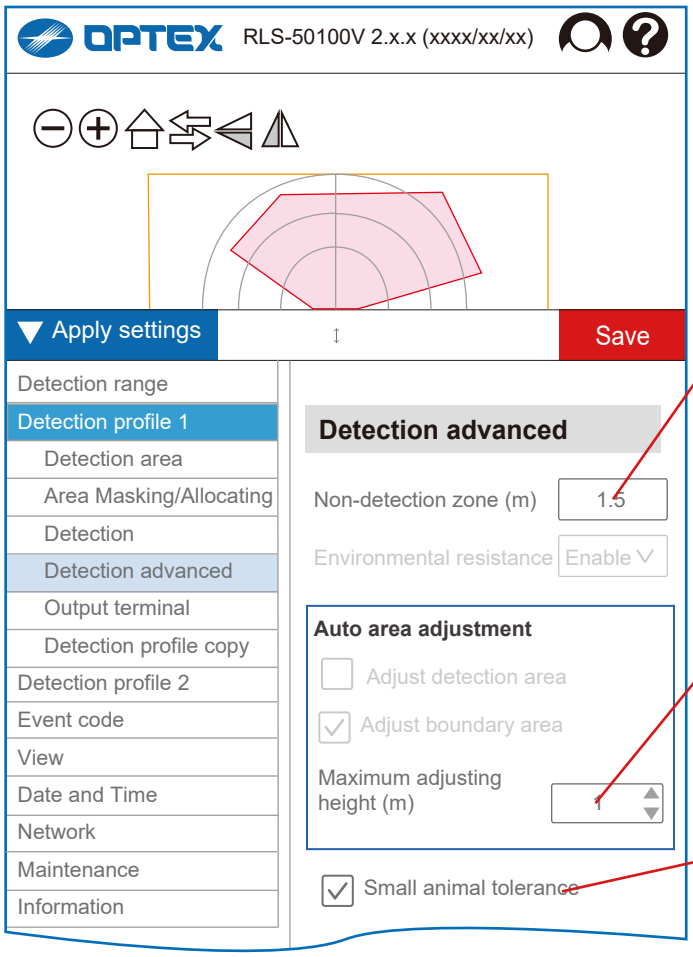
As long as an object remains in the detection area after detection, it keeps the alarm condition.

Preset:

Even though an object remains in the detection area after detection, the alarm will be restored after the preset time.

Specified time (sec.) [1 to 30,000 (= 500 min.)]

Setting for alarm duration after detection.



3. Vertical mode

Non-detection zone (m)

RLS-50100V [0 to 50 rectangle, 0 to 80 fanshape]

RLS-3060V [0 to 30 rectangle, 0 to 50 fanshape]

Objects near to ceiling are ignored.
In vertical detection area, protruding objects on the ceiling can cause false alarm. Enter the height of the ignoring area.

Maximum adjusting height (m)

RLS-50100V [0 to 50 rectangle, 0 to 80 fanshape]

RLS-3060V [0 to 30 rectangle, 0 to 50 fanshape]

In vertical mode, learning area can be limited to Maximum Adjusting Height. Changes under the height are learned as background.

Small animal tolerance

In vertical mode, small animals on the ground are ignored by this function.

Additional menu on Profile 1 and 2

When set the "Always show advanced settings" to enable, following 4 *2.1 menu items appear on each Profile 1 and 2.

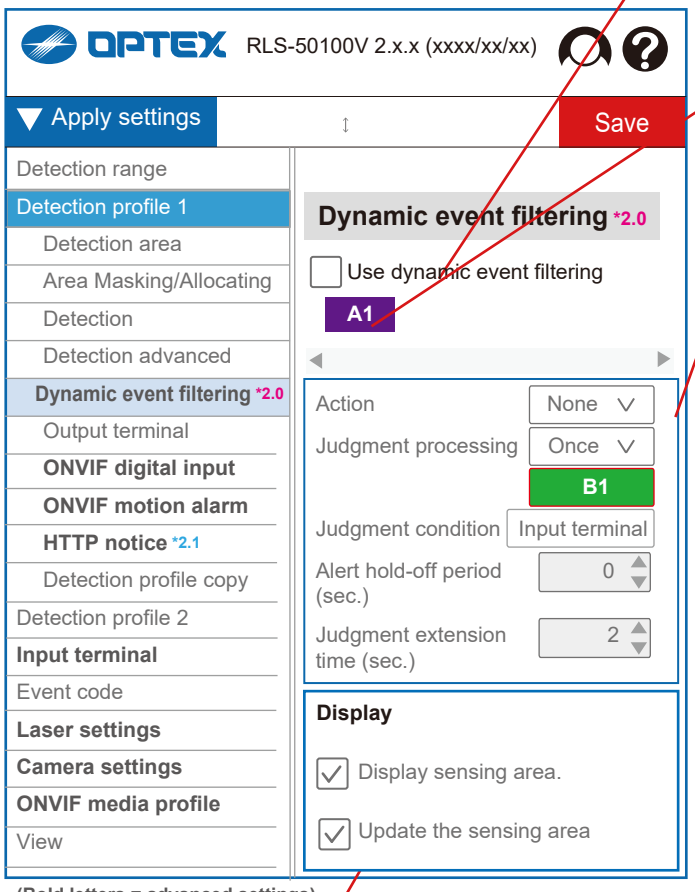
--> Refer to Section "4-5-3. Menu" or "5-1. Menu view".

[1] 4-2-4A. Dynamic event filtering *2.0 (Ver.2.0 or later)

[2] 4-2-6. ONVIF digital input

[3] 4-2-7. ONVIF motion alarm

[4] 4-2-7A. HTTP notice *2.1 (Ver.2.1 or later)



(Bold letters = advanced settings)
*2.0 = Ver.2.0 or later
*2.1 = Ver.2.1 or later

Display

Display the sensing area.

Update the sensing area.

4-2-4A. Dynamic event filtering *2.0 (Ver.2.0 or later)

Use dynamic event filtering
When this function is enabled, detection area A is assigned as an "Alert zone" and detection area B is assigned as a "Judgment zone", and the output is judged by the AND or NAND logic of each area. In addition, all detection areas B never create an alarm by itself alone.

Alert zone
The detection area A that can be used as an “Alert zone” is displayed. When the area filter is available, “A11”, “A12” ... so on are displayed, and can be set their individual conditions for each detection area.

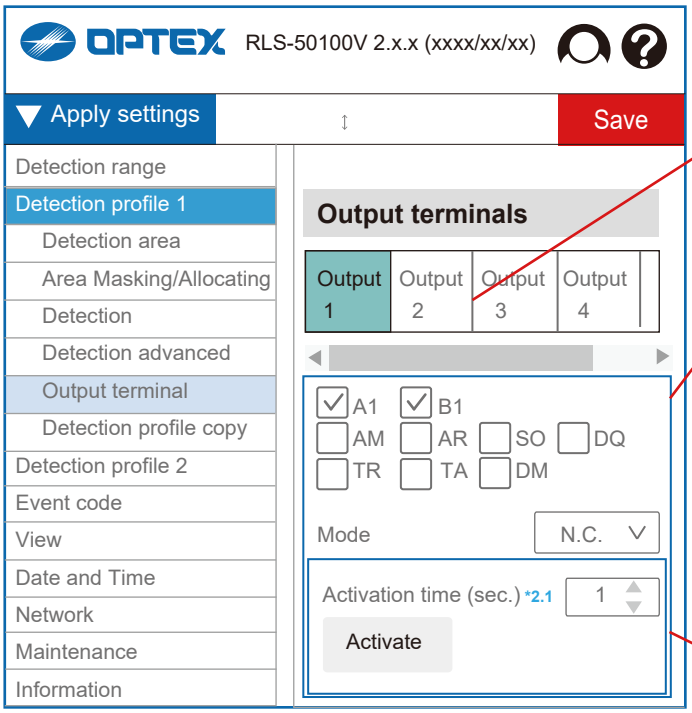
Action [None, Advance, Suppress]
None: Dynamic event filtering can not be used for this area.
Advance: Only conditions under detections in the "Judgement area", the detection in the "Alert zone" makes alarm condition. (AND logic)
Suppress: Only conditions without detection in the "Judgement area", the detection in the "Alert zone" makes alarm condition. (NAND logic)

Judgment processing [Once, Always]
Once: Judgment is executed only during the "Alert hold-off period". After the "Alert hold-off period" ends, the alarm will be output based on the judgment result.
Always: Judgment is always executed after the "Alert hold-off period" ends, the alarm will be output based on the judgment result. (Delay timer)

Judgment condition
The detection area B that can be used as an “Judgment zone” is displayed. When the area filter is available, “B11”, “B12” ... so on are displayed, and can be set also the input terminal as the judgment condition.

Alert hold-off period (sec.) [0 to 900 (= 15 min.)]
Set the period from the detection in the "Alert zone" to the alarm output. (Delay timer)

Judgment extension time (sec.) [0 to 900 (= 15 min.)]
Set the extension time for the "judgment condition" . (OFF-delay timer)



4-2-5. Output terminals

Can set the each terminal individually.

Select the terminal for settings
[Output 1, 2, 3, 4, 5, 6]

Select events
[A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, AM, AR, SO, DQ, TR, TA, DM]

Output when the selected event occurs.

R.E.C. (REDSCAN Event Code)

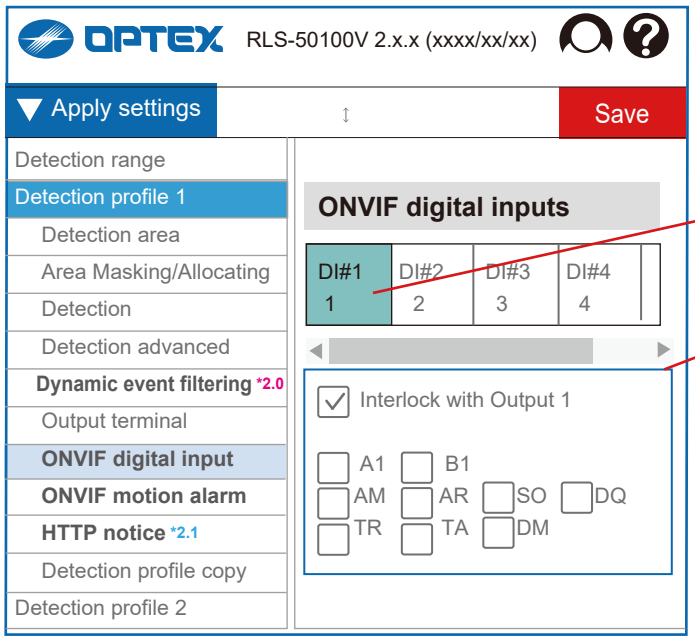
A1, A11, A12 .... B1, B11, B12 .....: Zone alarm
AM: Anti-Masking
AR: Anti-Rotation
DQ: Environmental Disqualification
DM: Device Monitoring
MO: Master Alarm
SO: Soiling
TA: Tamper Output
TR: Device Trouble

Select output mode [N.O., N.C.]

Activation time (sec.) *2.1 (Ver.2.1 or later)
[1 to 1,800 (= 30 min.)]
Set the time to activate the test output.
Press the "Activate" button for the test.

ONVIF menu on Profile 1 and 2

When set the "Always show advanced settings" to enable, 2 ONVIF menu items appear on each Profile 1 and 2. ***--> Refer to Section "3. ONVIF settings"***



(Bold letters = advanced settings)
*2.0 = Ver.2.0 or later
*2.1 = Ver.2.1 or later

4-2-6. ONVIF digital inputs

Can set the each terminal individually according to the ONVIF format.

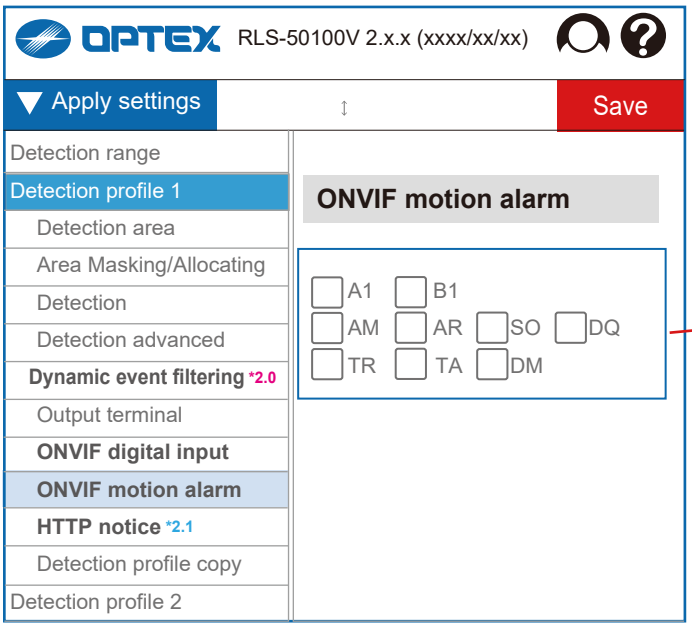
Select the terminal for settings
[DI#1, 2, 3, 4, 5, 6]

Interlock with Output 1 to 6

Select events
[A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, AM, AR, SO, DQ, TR, TA, DM]

Respond when the selected event occurs.
The choices appear only when "Interlock with Outputs" is not selected.

-> See "4-2-5. Output terminals" for R.E.C (REDSCAN event code)



(Bold letters = advanced settings)
*2.0 = Ver.2.0 or later
*2.1 = Ver.2.1 or later

4-2-7. ONVIF motion alarm

Can set the ONVIF motion alarm responding to the select events.

Select events

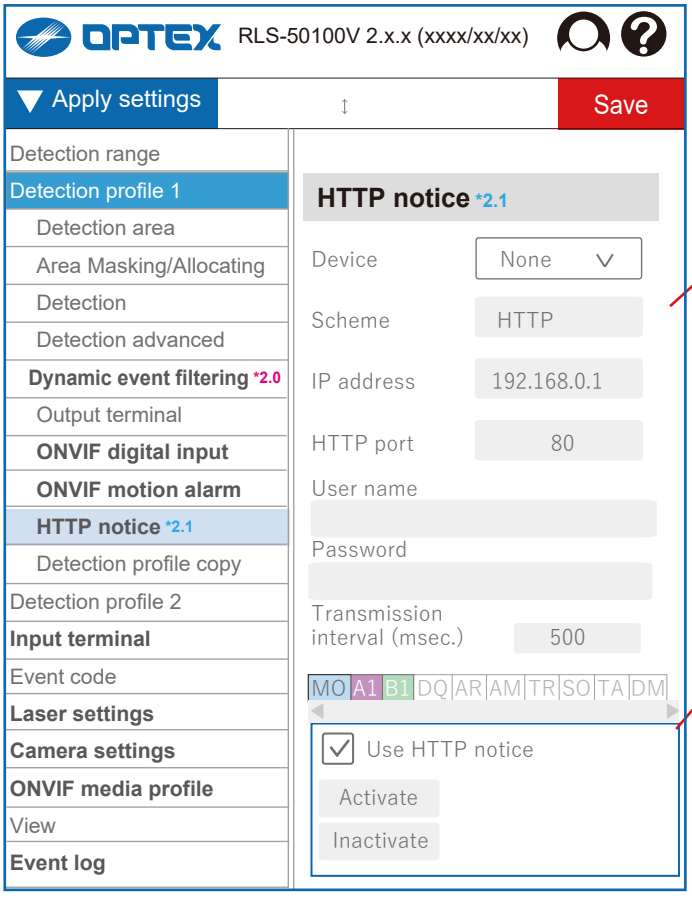
[A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, AM, AR, SO, DQ, TR, TA, DM]

Respond when the selected event occurs.

-> See "4-2-5. Output terminals" for R.E.C (REDSCAN event code)

4-2-7A. HTTP notice *2.1 (Ver.2.1 or later)

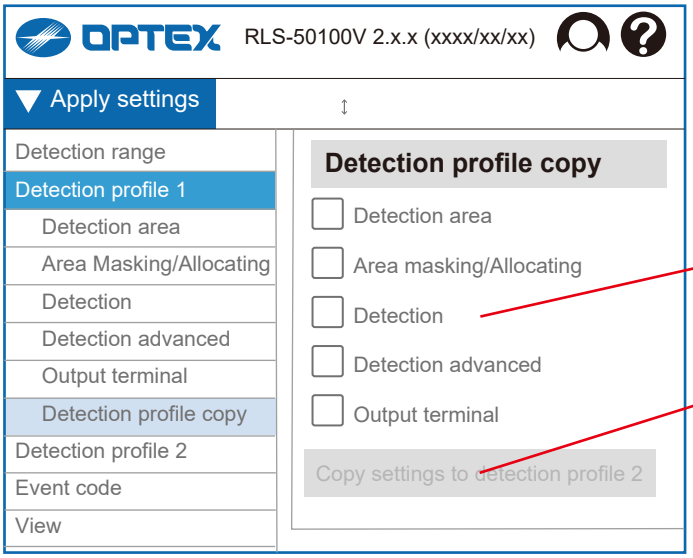
A function to control external devices using HTTP based on R.E.C (REDSCAN event code).
AXIS devices controlled by Virtual Inputs and Generic devices controlled by HTTP commands can be used.



(Bold letters = advanced settings)
*2.0 = Ver.2.0 or later
*2.1 = Ver.2.1 or later

Device [None, AXIS device, Generic device]
Scheme [HTTP, HTTPS]
IP address
HTTP/HTTPS port
User name
Password
Transmission interval (msec.)
[500 to 10,000 (= 10 sec.)]

Event setting
Can be set for each selected event.
Use HTTP notice
Virtual input number [1 to 32] *1
Activation URI *2
Inactivate *2
Activate: Test output.
Inactivate: Stops test output.
Inactivate all: Stops all test outputs. *1
*1 = AXIS device only.
*2 = Generic device only.



4-2-8. Detection profile copy

Copy the settings to the profile 2.

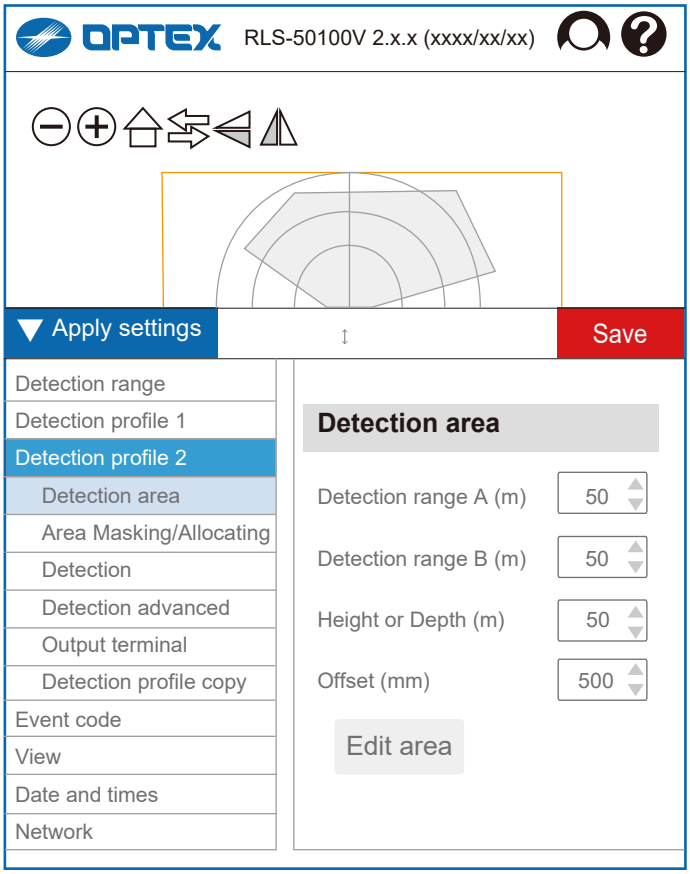
It can be adjusted individually after copying.

Select items

The selected items will be copied to the profile 2.

Copy button

It can be pushed at least one item is selected.

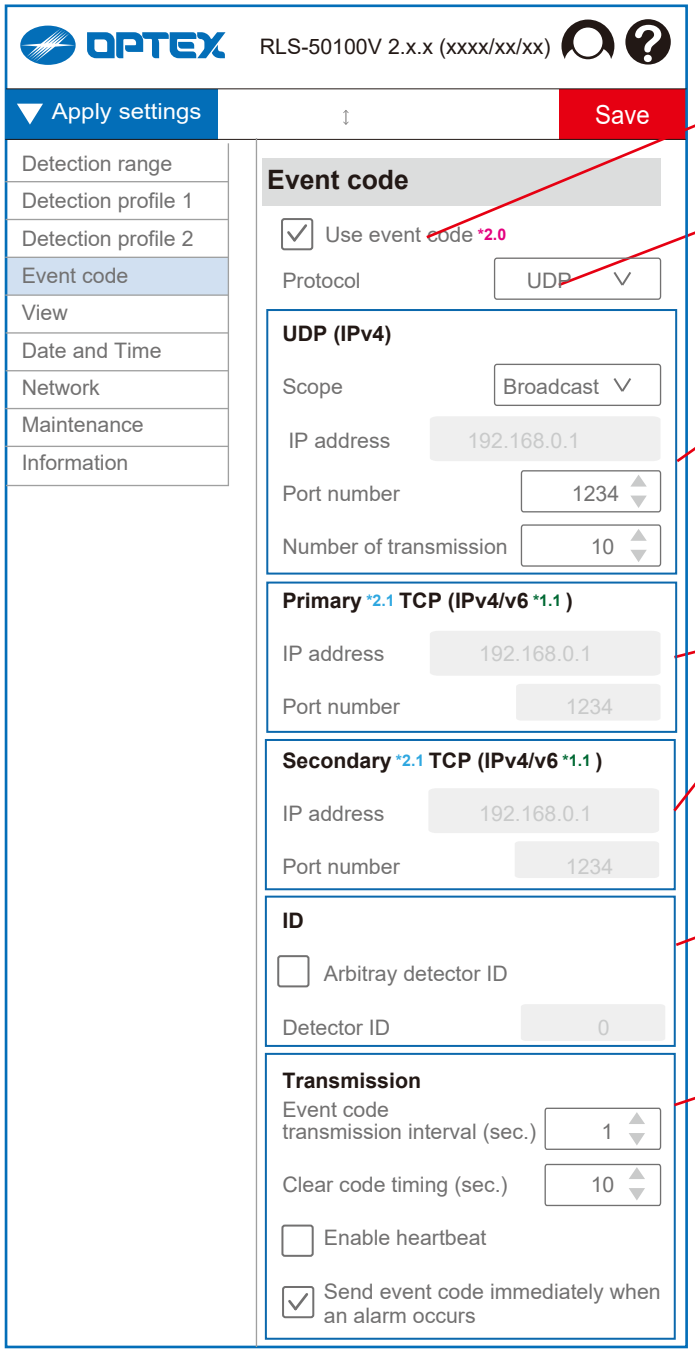


4-3. Detection profile 2

Set each item step by step just same as detection profile 1.

Each item of profile 1 can be also copied to profile 2.

4-4. Event code



Use event code *2.0 (Ver.2.0 or later)

If unchecked, the event code will not be sent.

Select the type of the communication protocol
[UDP, Primary TCP, UDP + Primary TCP,
Primary/Secondary TCP,
UDP + Primary/Secondary TCP]

UDP (IPv4) settings

Scope [Broadcast, Unicast]

IP address

Port number

Number of transmission [1 to 20]

Primary *2.1/ Secondary *2.1 TCP (IPv4/v6 *1.1) settings

IP address

Port number

*1.1 = Ver.1.1 or later *2.1 = Renamed/Added in Ver.2.1

ID settings

arbitrary detector ID enable

Detector ID [0 to 999]

Transmission

Event code transmission interval (sec.)

[1 to 3,600 (= 60 min.)]

Clear code timing (sec.) [2 to 60 (= 1 min.)]

Enable heartbeat

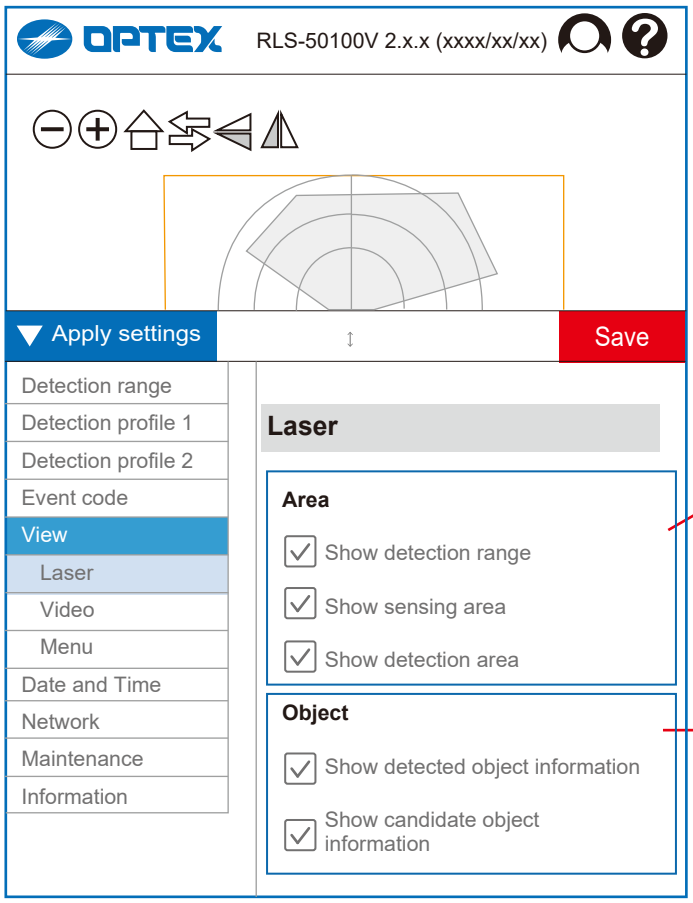
Heartbeat for Device Monitoring:

If it is checked, DM code is stored in R.E.C. and sent by Transmission Interval.

Send event code immediately when an alarm occurs

Remove the check mark, if you want to reduce the traffic of the event code.

-> See "4-2-5. Output terminals" for R.E.C (REDSCAN event code)

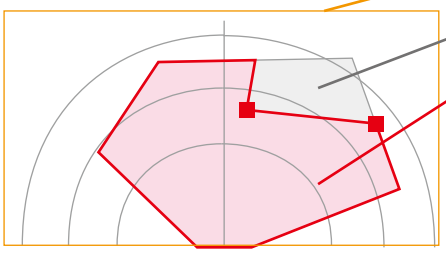


4-5. View

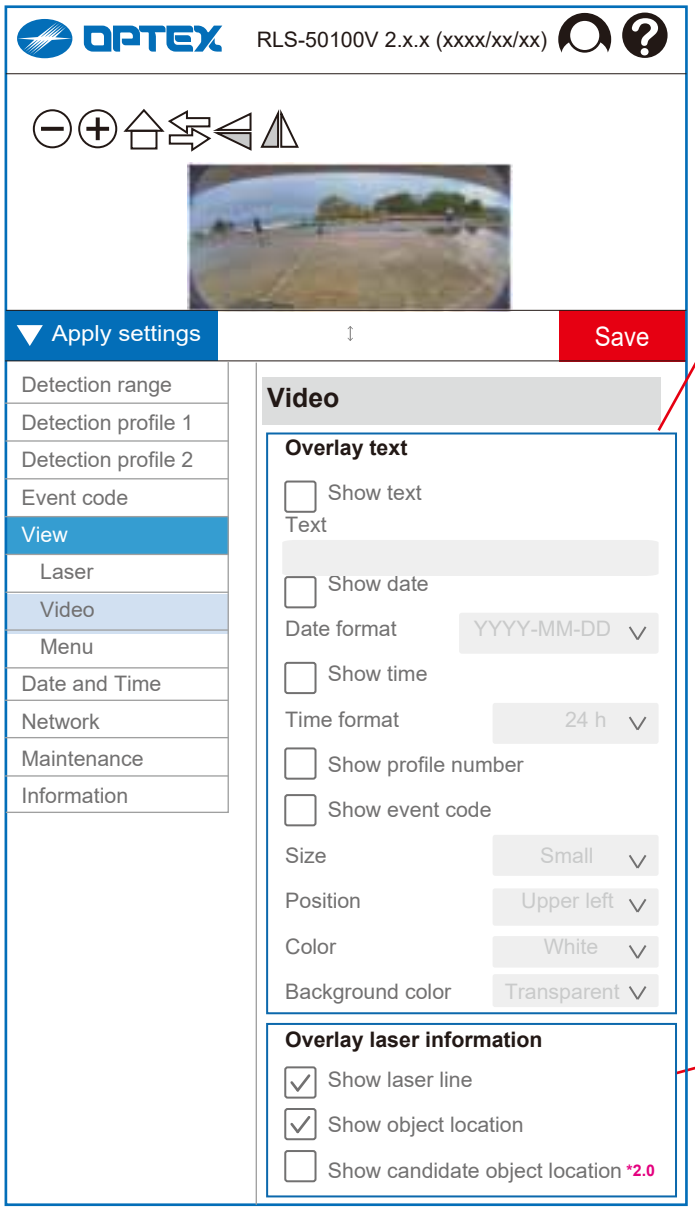
4-5-1. Laser

Detection/sensing area
Show detection range *1
Show sensing area *2
Show detection area *3

Object settings
Show detected object information
Show candidate object information



Detection/sensing area
*1 Detection range
*2 Sensing area
*3 Detection area



4-5-2. Video

Overlay text

They do not appear in the images on the browser.

Only for RTSP streaming.

Show text

Text [A to Z, a to z] [0 to 9] [! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [ ] ^ _ ` { | } ~ *space*]

Show date

Date format [YYYY-MM-DD, MM/DD/YYYY]

Show time

Time format [12h, 24h]

Show profile number

Show event code

Size [Small, Middle, Large]

Position [Upper right, Upper left, Lower right, Lower left]

Color [White, Black]

Background color [White, Black, Transparent, Semi-transparent]

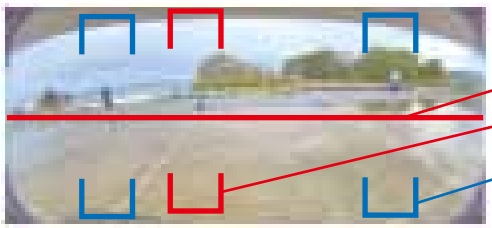
Overlay laser information

Show laser line **1*

Show object location **2*

Show candidate object location **3*

*2.0 (Ver.2.0 or later)



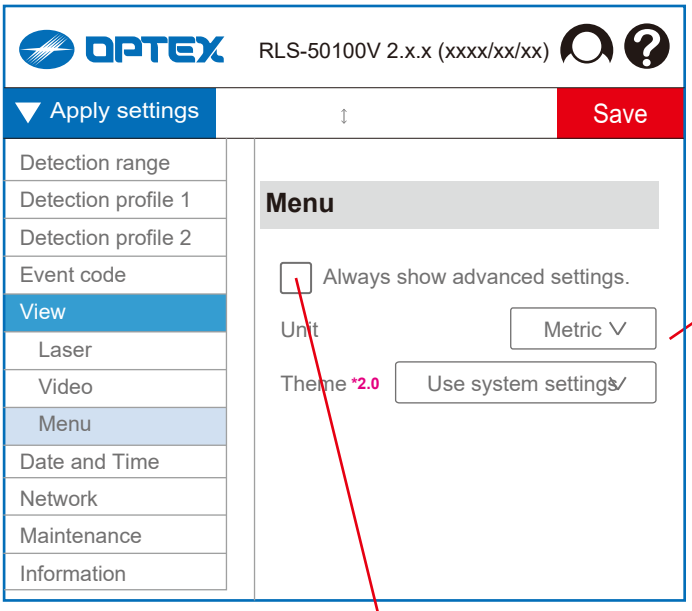
Overlay laser information

**1* Laser line

**2* Object location

**3* Candidate object location *2.0 (Ver.2.0 or later)

4-5-3. Menu



Unit [Metric, Feet]

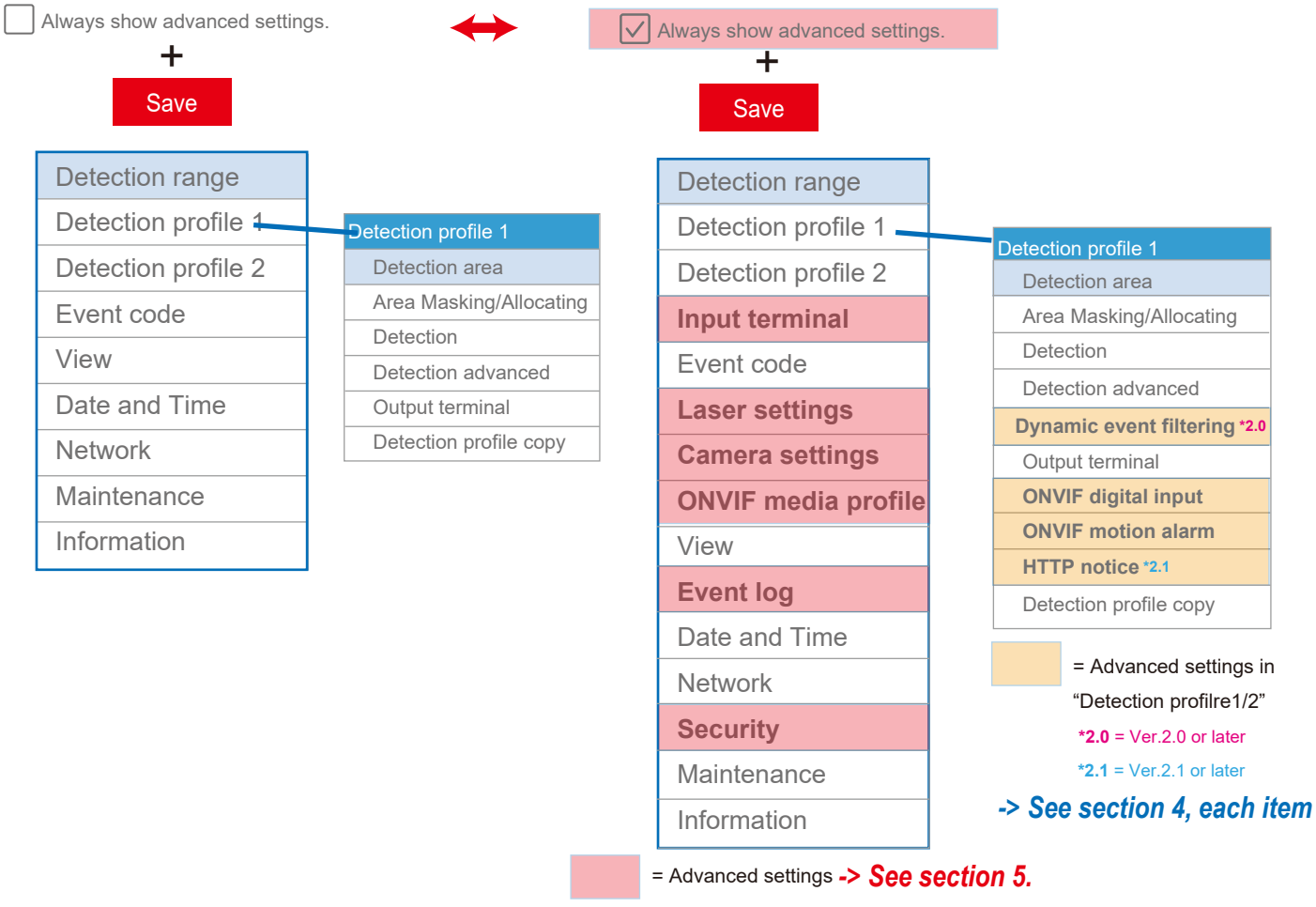
Theme *2.0 (Ver.2.0 or later)

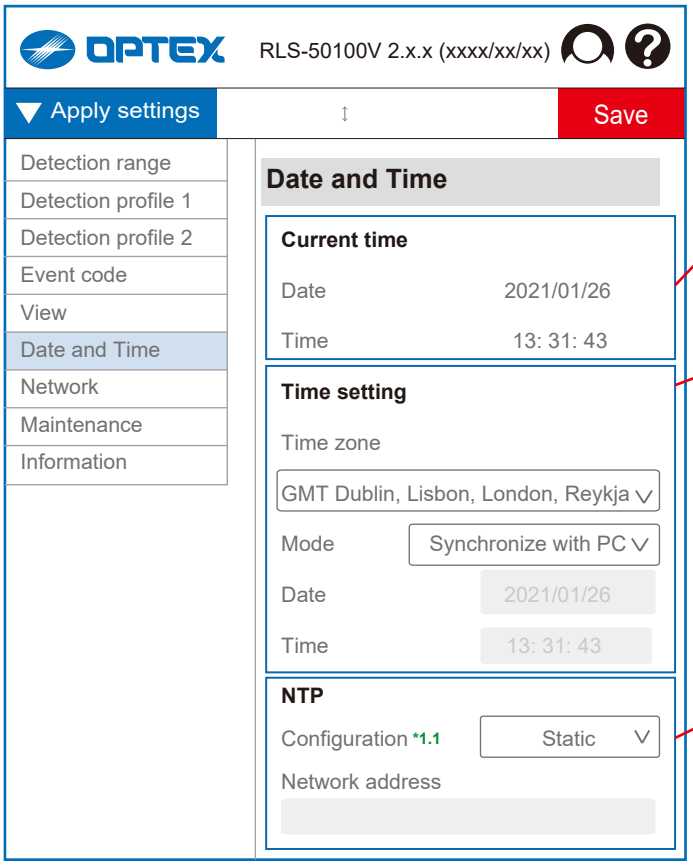
[Use system settings, Light, Dark]

Use system settings: Works with the theme settings for PCs and smartphones.

Light: Displayed on the screen in light mode.

Dark: Displayed on the screen in dark mode.



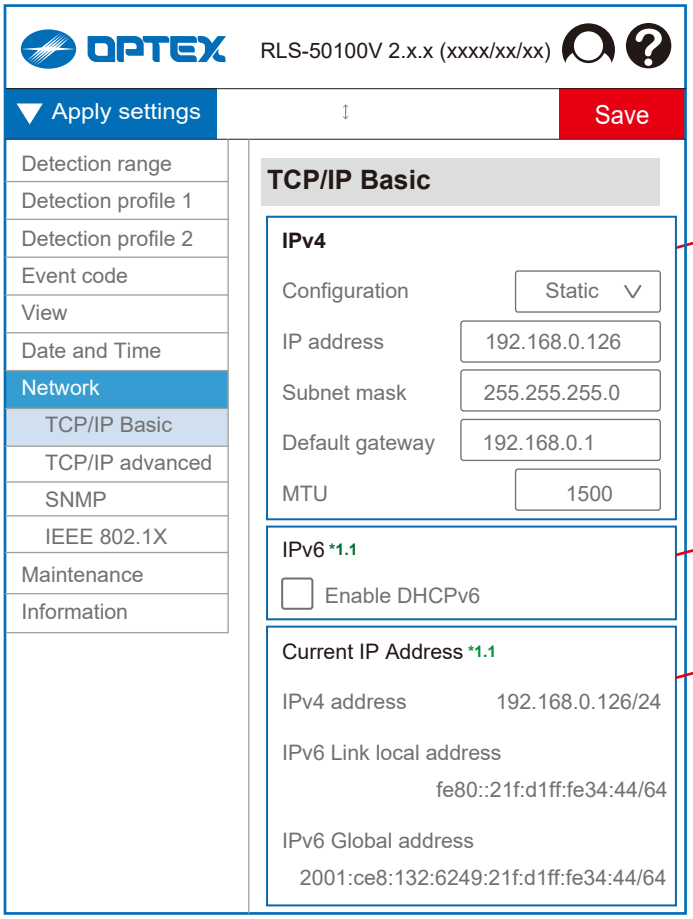


4-6. Date and times

Current time
Date
Time

Time settings
Time zone [GMT-12 to +14]
Mode [Synchronize with PC, Synchronize with NTP, Manual setup]
Date
Time

NTP
Configuration [Static, DHCP] *1.1
Network address
*1.1 = Ver.1.1 or later



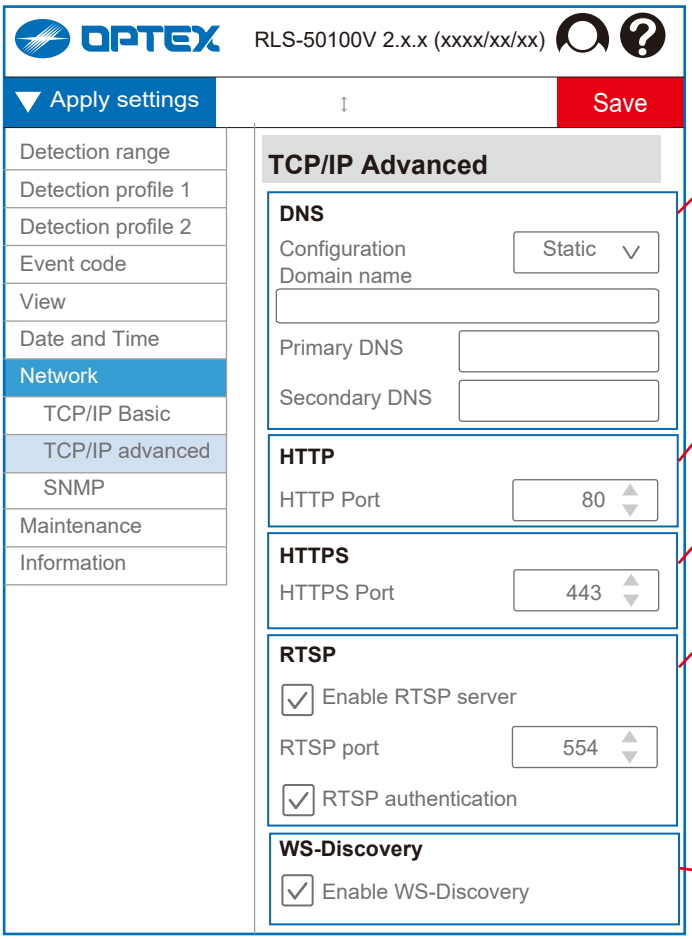
4-7. Network

4-7-1. TCP/IP Basic

IPv4
Configuration [Static, DHCP]
IP address
Subnet mask
Default gateway
MTU [1000 to 1500]

IPv6 *1.1
Enable DHCPv6

Current IP Address *1.1
IPv4 address
IPv6 Link local address
IPv6 Global address
*1.1 = Ver.1.1 or later



4-7-2. TCP/IP Advanced

DNS settings
Configuration [Static, DHCP]
Domain name
Primary DNS
Secondary DNS

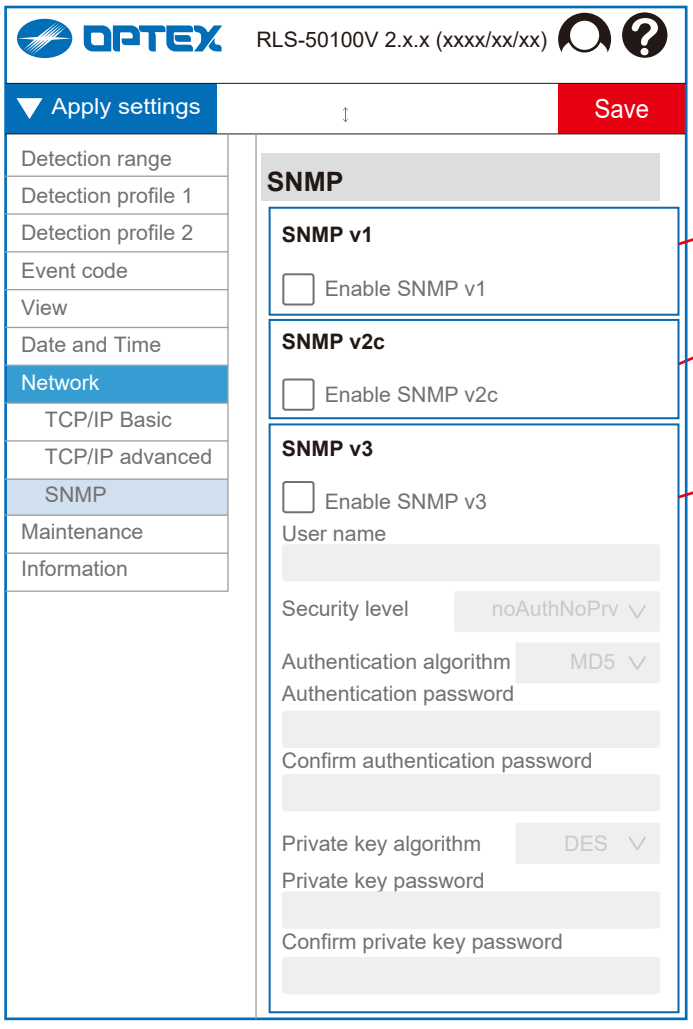
HTTP setting
HTTP Port

HTTPS setting
HTTPS Port

RTSP settings
Enable RTSP server
RTSP Port
Enable RTSP authentication

Authentication of RTSP server and ONVIF server is common.
URI of RTSP of REDSCAN Pro is
rtsp://(IP address)/stream/0
URI of HTTP tunneling of REDSCAN Pro is
http://(IP address)/stream/0

WS-Discovery setting
Enable WS-Discovery

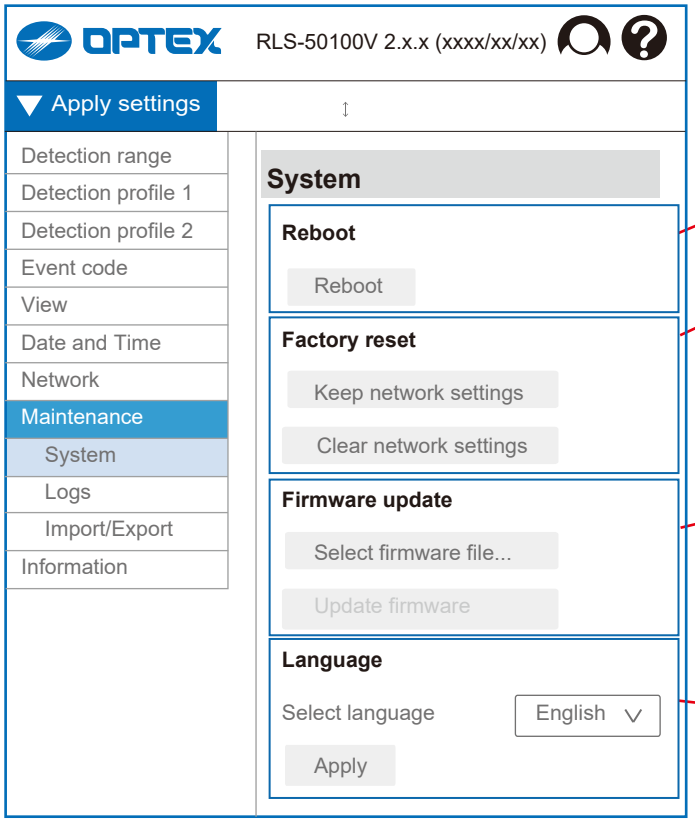


4-7-3. SNMP

SNMP v1
Enable SNMP v1

SNMP v2c
Enable SNMP v2c

SNMP v3
Enable SNMP v3
User name
Security level [noAuthNoPriv, authNoPriv, authPriv]
Authentication algorithm [MD5, SHA]
Authentication password
Confirm authentication password
Private key algorithm [DES, AES]
Private key password
Confirm private key password



4-8. Maintenance

4-8-1. System

Reboot

Perform a reboot

Factory reset

Keep network settings:

restore to the default settings except network settings

Clear network settings:

restore to the factory default with all settings

Firmware update

Select firmware file:

open the separate window to select the file

Update firmware:

start to update by the selected file

Language

Select language

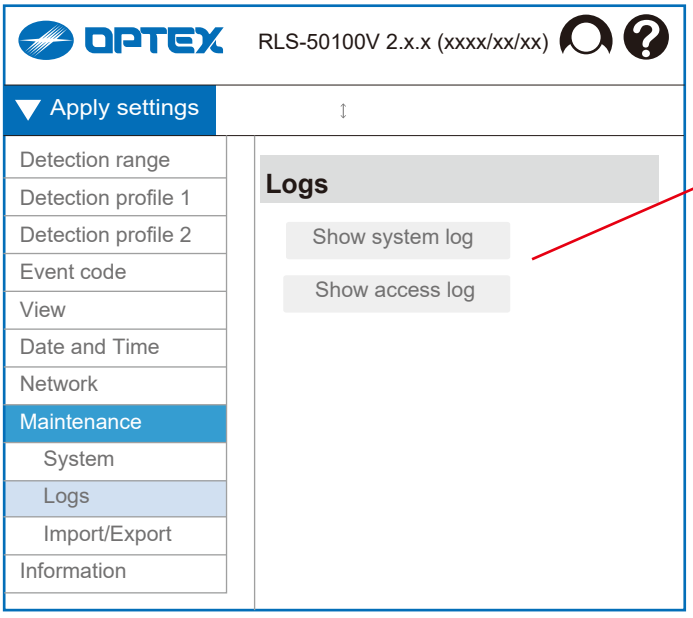
[English (Default), Français, Deutsche, Italiano, Español, Portugés Brasil, 中文 , 日本語]

Apply

Firmware update:

Version up; The set parameters will be inherited even after the update.

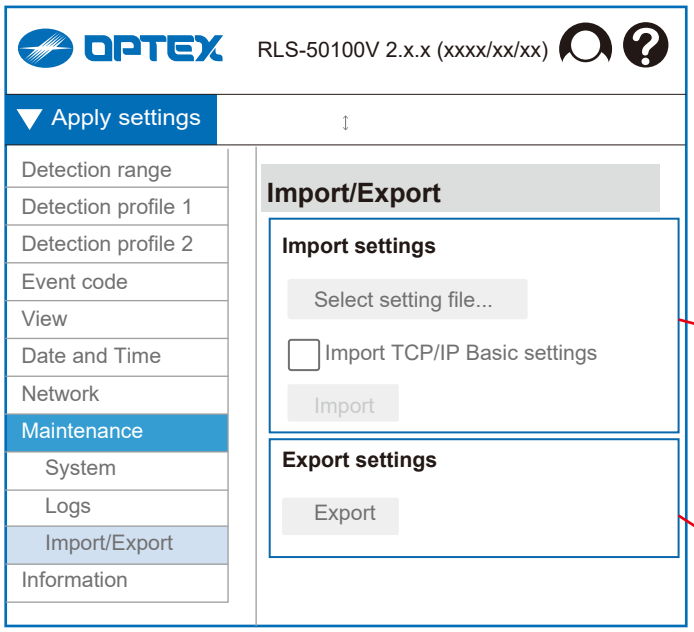
Version down; The set parameters will ***not*** be inherited after the update.
All settings will ***return*** to factory defaults.



4-8-2. Logs

Show system log

Show access log



4-8-3. Import/Export

This function allows you to copy the set parameters to other devices.

For example, it is effective in the following cases.

[1] Make the same settings for multiple devices at the same site.

[2] Reflect all or part of past settings on different sites.

[3] Back up the settings.

Import settings

Select setting file

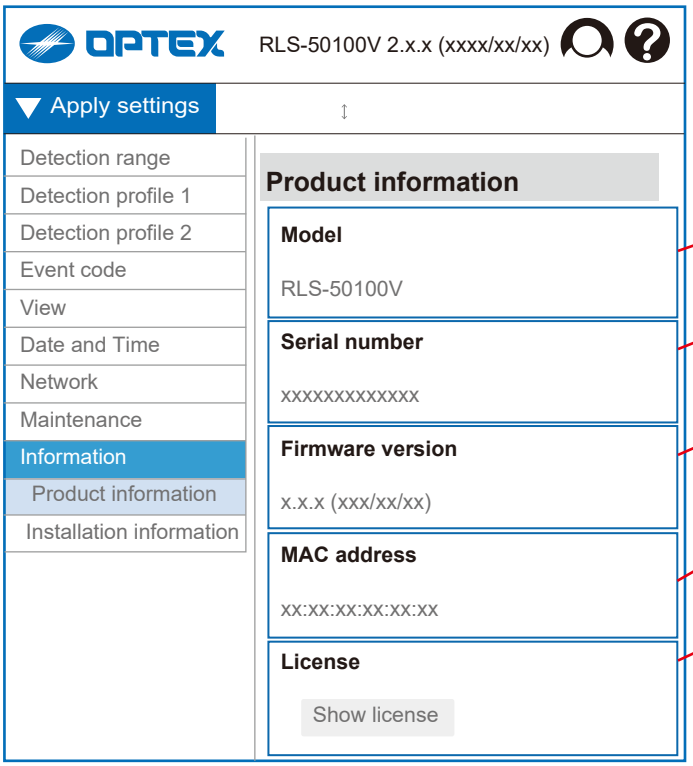
Import TCP/IP Basic settings Enable

-> Refer to "4-7-1. TCP/IP Basic" about setting items.

Import starts

Export settings

Export starts



4-9. Information

4-9-1. Product information

Model name

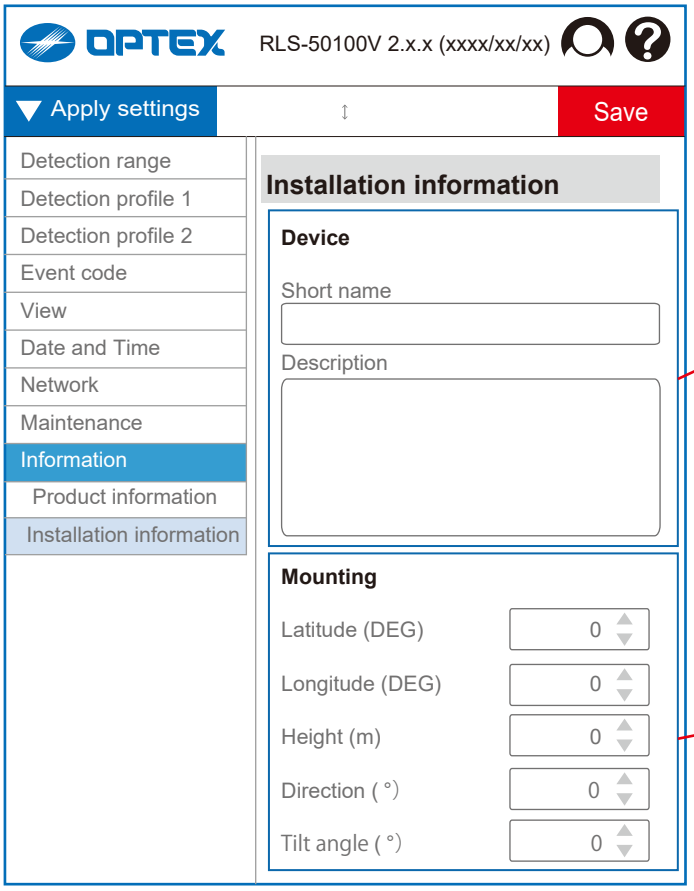
Serial number

Firmware version

MAC address

License

Show the license information by pushing the button.



4-9-2. Installation information

The information described here can be referred to from the outside by communication.

Show the device information

Short name

Description

Use this area freely as a memo.

Show the mounting information

Latitude (DEG)

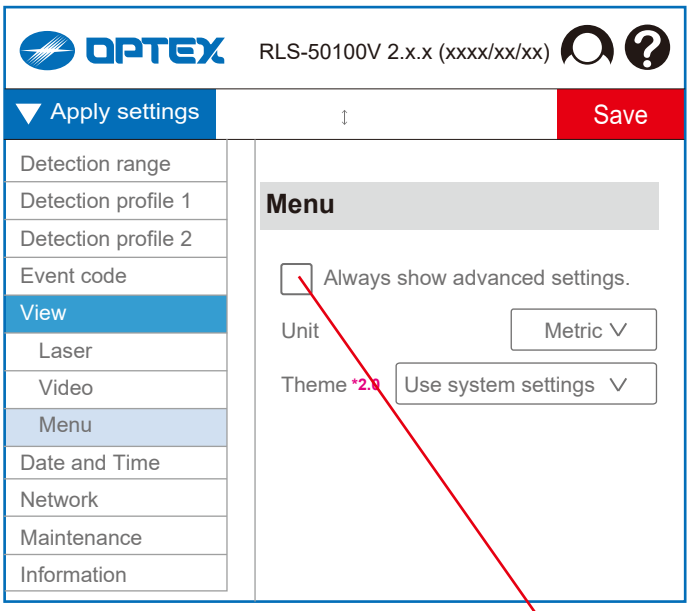
Longitude (DEG)

Height (m)

Direction (°) [0° to 359°]

North = 0° South = 180°

Tilt angle (°) [-90° to 90°]

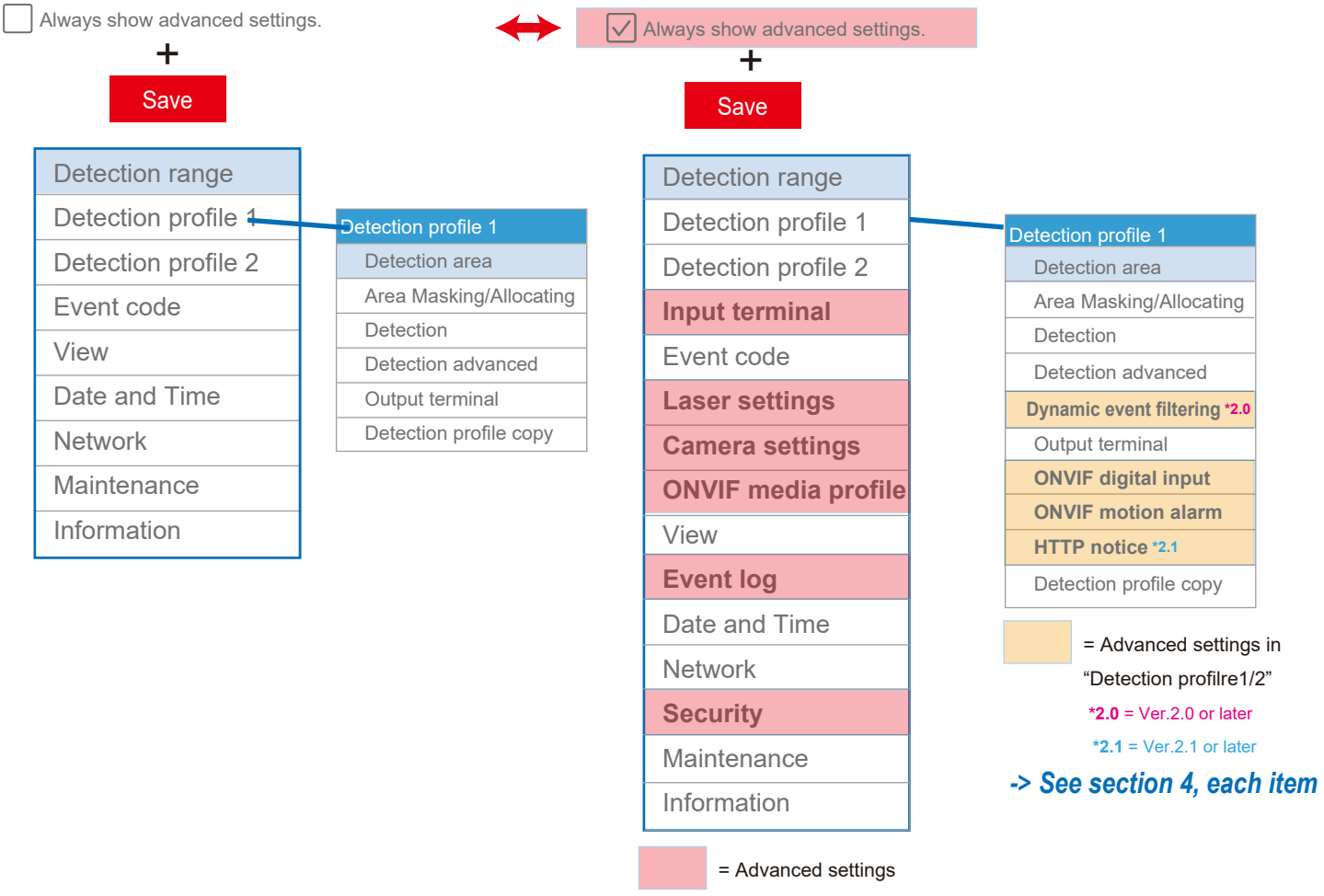


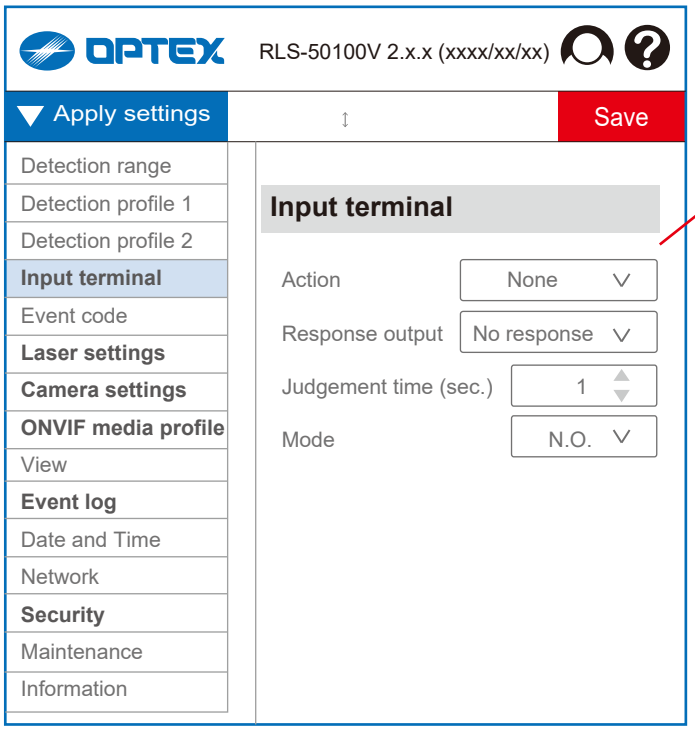
Always show advanced settings

5. Advanced settings

5-1. Menu view

If “Always show advanced settings” is checked, several additional items will be displayed as shown.





(Bold letters = advanced settings)

5-2. Input terminal

Action

[None, Detection profile switching, Area set, Sensor check #]

= No response is returned during trouble output (AM/AR/SO/TR) or Disqualified environment output (DQ).

Response output

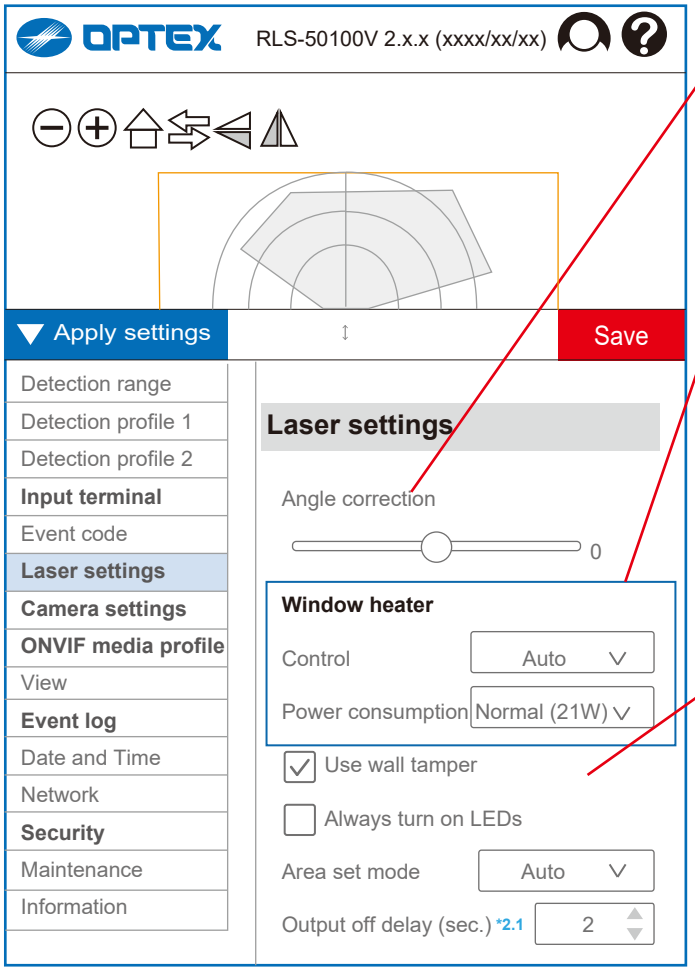
[No response, Output 1, 2, 3, 4, 5, 6]

Judgement time

[0 to 10]

Mode

[N.O., N.C.]



(Bold letters = advanced settings)

5-3. Laser settings

Angle correction

[-5° to +5°]

The inclination of the detection area is corrected by software within ±5°.

Window heater

The RLS-LWVH has a transparent conductive film heater inside the laser window, and it can be selected as an option for cold environments.

Control: [Auto, Disable]

Power consumption:

[Low (17 W), Normal (21 W), High (25 W), Max (30 W)]

Heating power settings

4 steps (Watts)	operation temp.	***Notes***
Low (17 W)	-30°C (-22°F)	
Normal (21 W)	-40°C (-40°F)	***Default***
High (25 W)	-40°C (-40°F)	***Defrost to -30°C (-22°F) / PoE+ usage limit***
Max (30 W)	-40°C (-40°F)	***Defrost to -40°C (-40°F) / DC power usage limit***

Use wall tamper

Turn it off when the wall tamper switch may not be pressed properly, for example mounting on a pole.

Always turn on LEDs

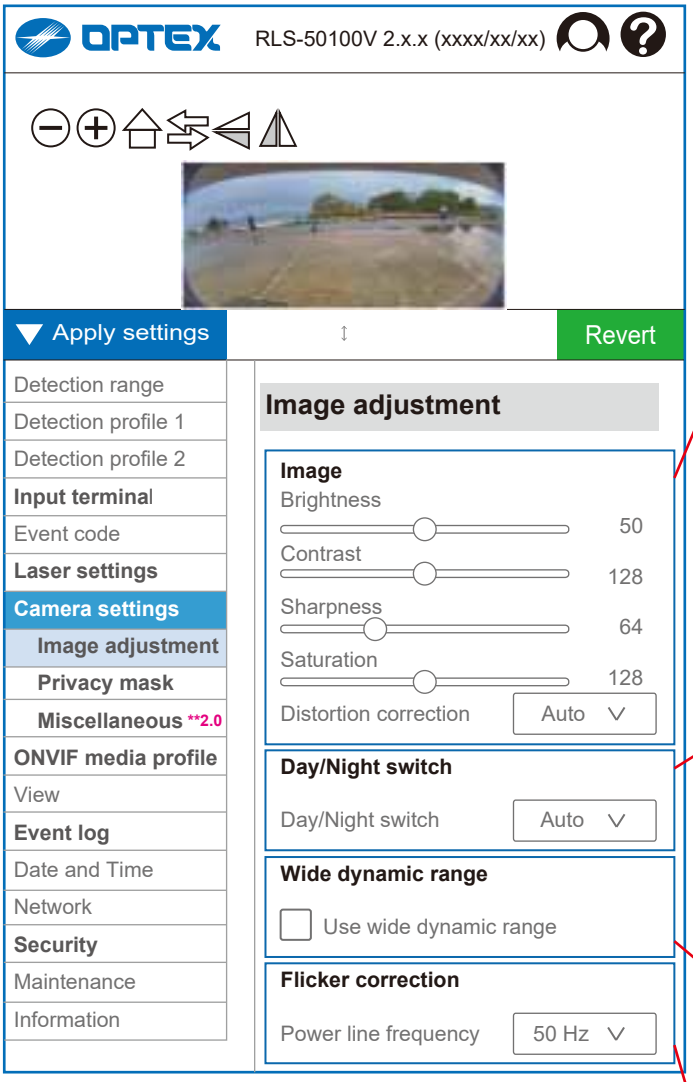
Area set mode

[Auto, Indoor option, Outdoor option]

Use it with “Auto” basically, because the area set is optimized according to the Indoor/Outdoor mode. Select 2 type of options, only if “Auto” can not work properly.

Output off delay (sec.) *2.1 (Ver.2.1 or later)

[0.1 to 60 (= 1 min.)]



(Bold letters = advanced settings)

**2.0 = Renamed in Ver.2.0 or later

5-4. Camera settings

5-4-1.Image adjustment

Image

Brightness [0 to 100]

Contrast [0 to 255]

Sharpness [0 to 255]

Saturation [0 to 255]

Distortion correction [Auto, Vertical, Horizontal]

Set it to "Auto" basically that applies an appropriate correction according to the current installation angle.

"Horizontal" corrects the angle so that each direction looks evenly spaced.

"Vertical" corrects so that the far side is easier to see.

Day/Night switch [Auto, Night, Day]

Auto: Switching automatically according to the ambient illuminance.

Night: It is fixed to a monochrome image so that it can record even in low light.

Day: It is fixed to a color image regardless of the ambient illuminance.

Wide dynamic range

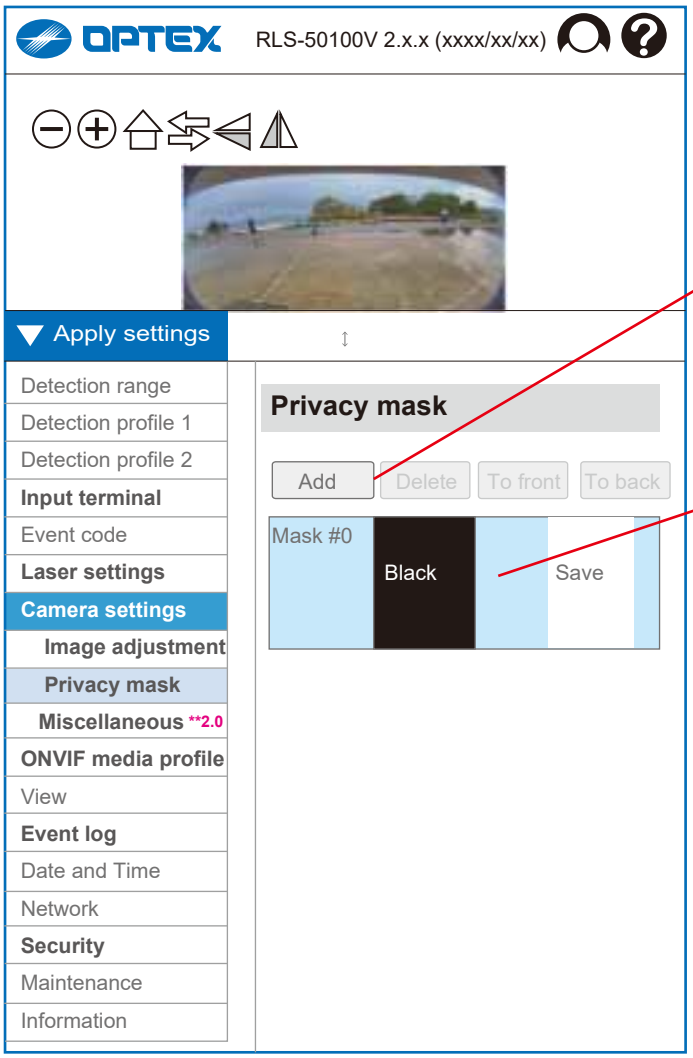
Dynamic range is the difference in brightness between the darkest and brightest parts of an image.

When it is turned on, it is corrected so that the difference in brightness is reduced, and overexposure and underexposure are less likely to occur.

It is recommended to turn it on under conditions where there is a large difference in brightness.

Flicker correction [50 Hz, 60 Hz]

It should be same as the power frequency.



(Bold letters = advanced settings)

****2.0** = Renamed in Ver.2.0 or later

5-4-2. Privacy mask

If you need to maintain privacy such as nearby facilities or people, you can use the privacy mask function to mask the specified area of the image.

Masking configuration

Add: to add a masking area for the camera images

Delete: to delete a masking area of the camera images

To front: Move the selected privacy mask forward.

To back: Move the selected privacy mask back.

Mask # [0 to 7]

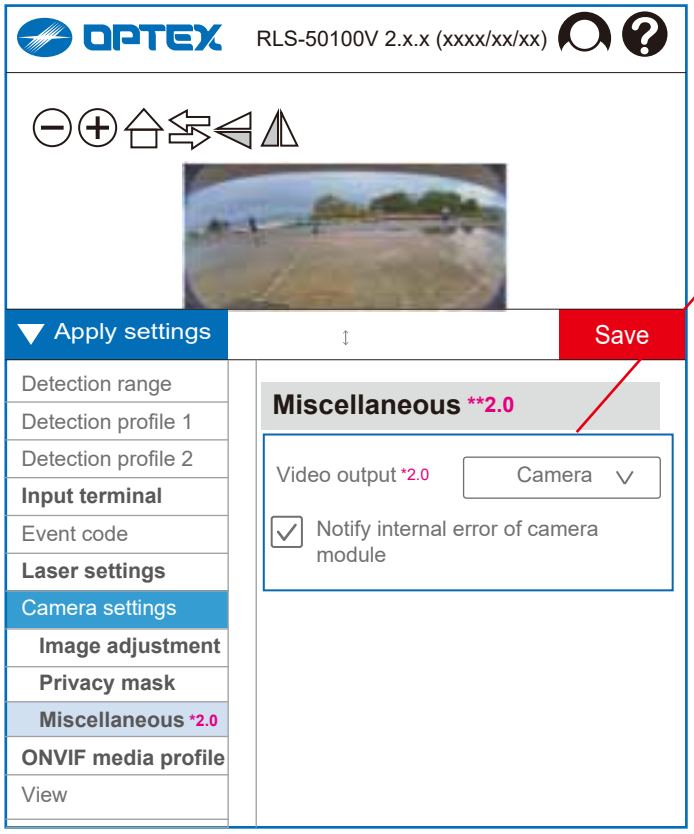
Color [Black, White, Gray, Red, Blue, Green,

Cyan, Yellow, Mosaic]

Save: to save the masking configuration

Moving to the other item without pressing "Save", the masking settings will be restored.

Revert: After confirming the settings by pressing "Save", the "Revert" button will appear, allowing you to return to the settings before editing.



(Bold letters = advanced settings)

*2.0 = Renamed in Ver.2.0 or later

5-4-3. Miscellaneous **2.0 (Renamed in Ver.2.0 or later)

Video output *2.0 (Ver.2.0 or later)

[Camera, All black, Mosaic]

Camera: Camera images without any processing

All black: Black images. Settings on "Camera - Privacy mask" and "View - Video" are ignored.

Mosaic: Images with mosaic. Settings on "Camera - Privacy mask" are ignored.

Notify internal error of camera module

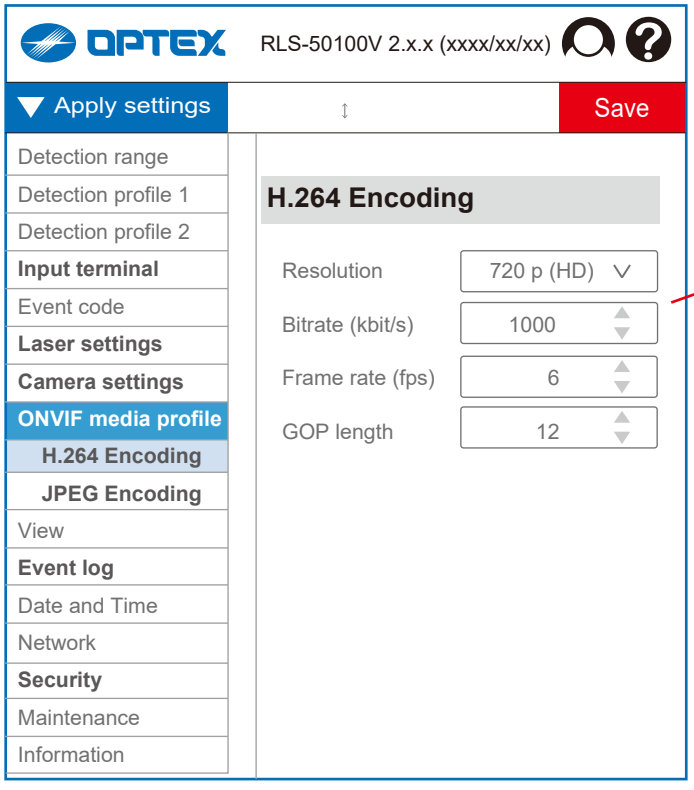
If you make it enable, the TR signal is output when an internal error occurs.

If you do not want to report a camera error as the TR signal, uncheck it.

ONVIF menu on Advanced settings

When add a user in "ONVIF User Management", 2 ONVIF menu can be used.

--> Refer to Section "3. ONVIF settings"



(Bold letters = advanced settings)

5-5. ONVIF media profile

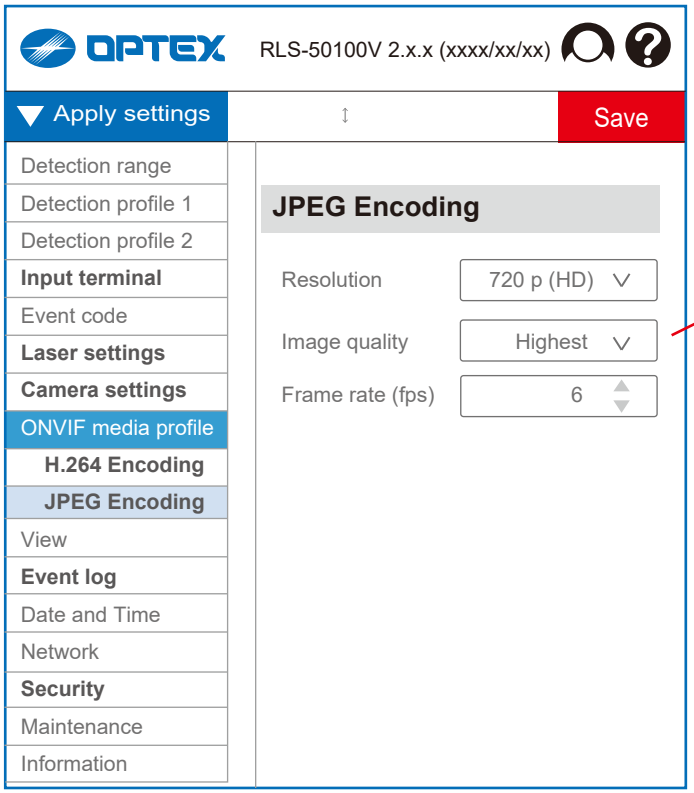
5-5-1. H.264 Encoding

Resolution [720 p (HD), 360 p, 180 p]

Bitrate (kbit/s) [200 to 2,000]

Frame rate (fps) [1 to 10]

GOP length [5 to 50]



(Bold letters = advanced settings)

5-5-2. JPEG Encoding

Resolution [720 p (HD), 360 p, 180 p]

Image quality [Highest, High, Normal, Low, Lowest]

Frame rate (fps) [1 to 10]

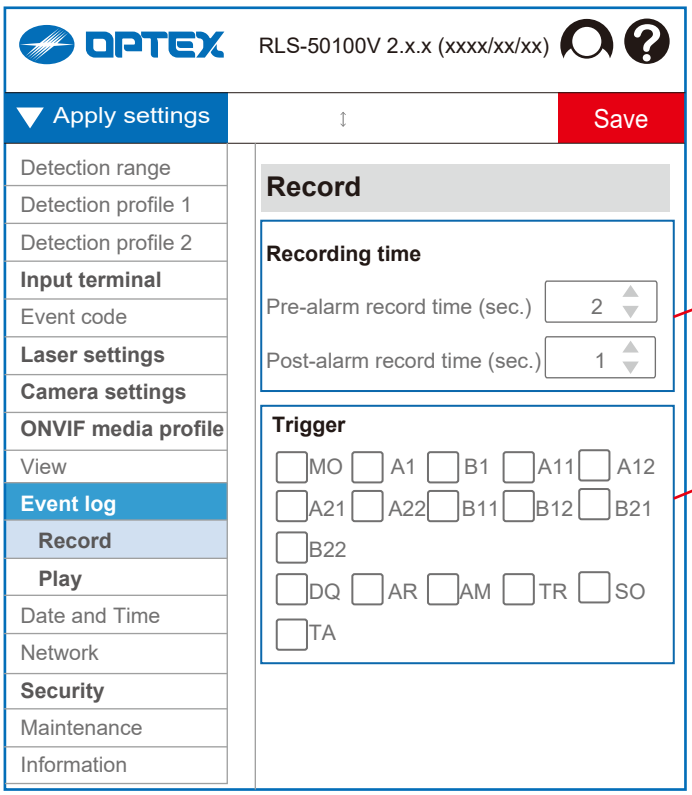
5-6. Event log

5-6-1. Record

You can save the camera image by using the set R.E.C. ***(REDSCAN Event Code. See list below)*** as a trigger.

You can set the Pre/Post recording time and the trigger to start recording.

You can save up to 500 logs.



(Bold letters = advanced settings)

Recording time

Pre-alarm record time (sec.) [2 to 5]

Post-alarm record time (sec.) [1 to 10]

Trigger

[MO, A1, A11, A12, A21, A22, B1, B11, B12, B21, B22, DQ, AR, AM, TR, SO, TA]

R.E.C. (REDSCAN Event Code)

A1, A11, A12 .... B1, B11, B12 .....: Zone alarm

AM: Anti-Masking

AR: Anti-Rotation

DQ: Environmental Disqualification

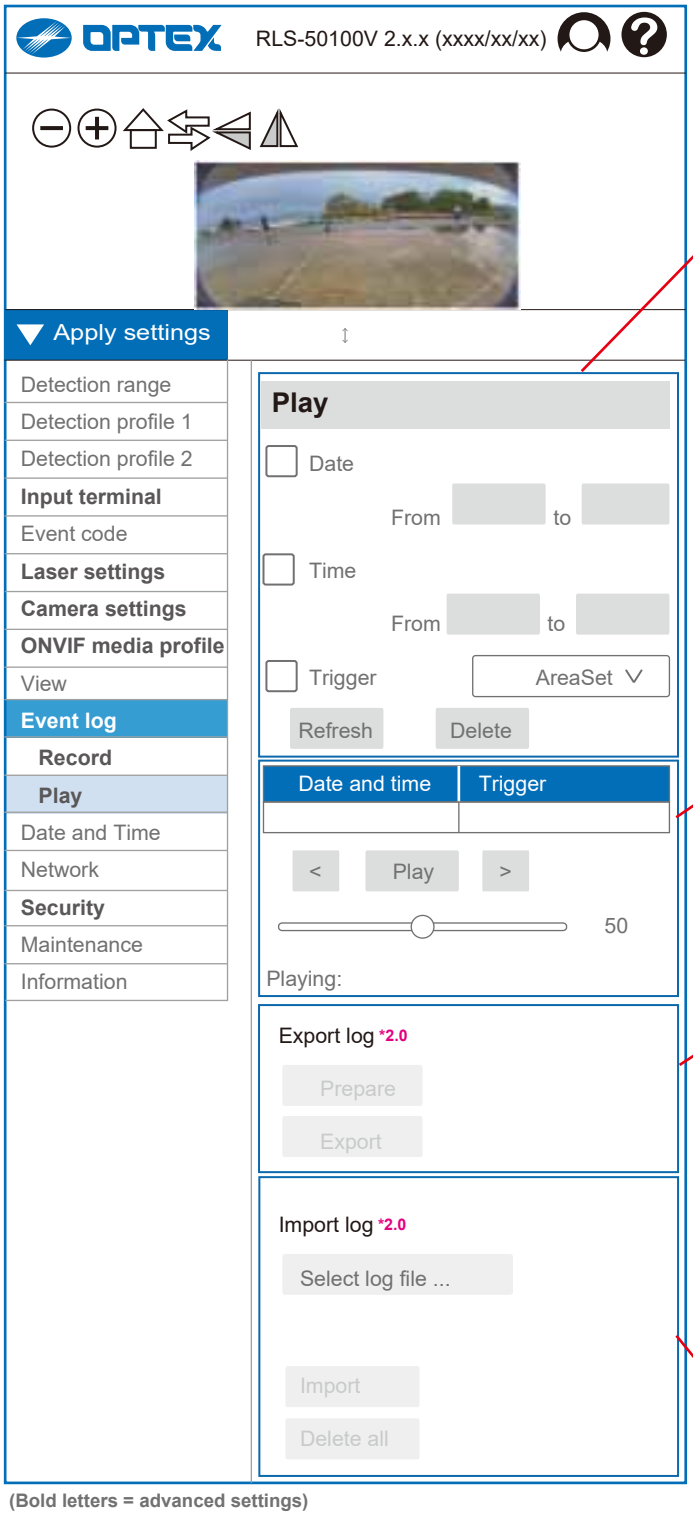
DM: Device Monitoring

MO: Master Alarm

SO: Soiling

TA: Tamper Output

TR: Device Trouble



(Bold letters = advanced settings)

5-6-2. Play

Play the recorded images.

Play search

Date

Date from [YYYY/MM/DD] to [YYYY/MM/DD]

Time

Time from [HH:MM:SS] to [HH:MM:SS]

Trigger

[Area set, Manual,

MO, A1, B1, A11, A12, A21, A22, B11, B12,

B21, B22, DQ, AR, AM, TR, SO, TA]

-> See "5-6-1. Record" for R.E.C (REDSCAN event code)

Refresh

Delete

Result list view

<

Play

>

Playing status

Export log *2.0 (Ver.2.0 or later)

Up to 5 files can be exported at the same time.

If the quantity is exceeded, an alert will be displayed when pressing the export button.

Prepare

While preparing the event log, HTTP tunneling video distribution and WebApi acceptance will be temporarily suspended.

Export

Import log *2.0 (Ver.2.0 or later)

When logs are imported, only the imported logs are displayed in the list.

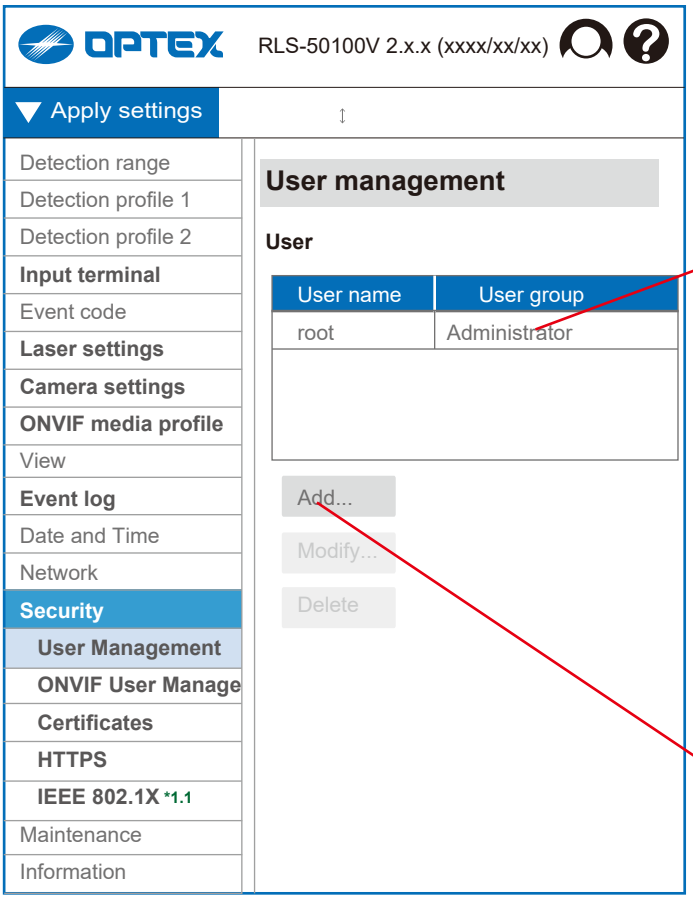
(Indicated as "Displaying imported logs")

If all the imported logs are deleted, logs in the sensor are displayed.

Select log file

Import

Delete all



(Bold letters = advanced settings)

*1.1 = Ver.1.1 or later

5-7. Security

5-7-1. User Management

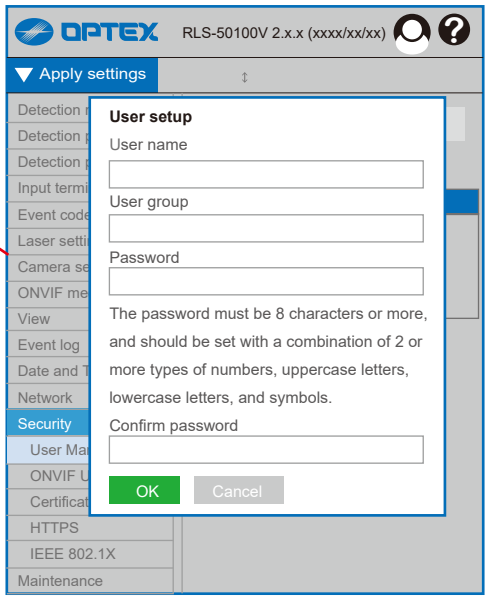
You can edit the user information to log in the system.

User list

Add a new user

Modify the selected user

Delete the selected user



User setup

User name

User group [Administrator, Operator, Viewer]

Administrator can change ***all*** parameter settings.

Operator can change parameters for ***display only***.

Viewer is ***not permitted*** to change any parameter.

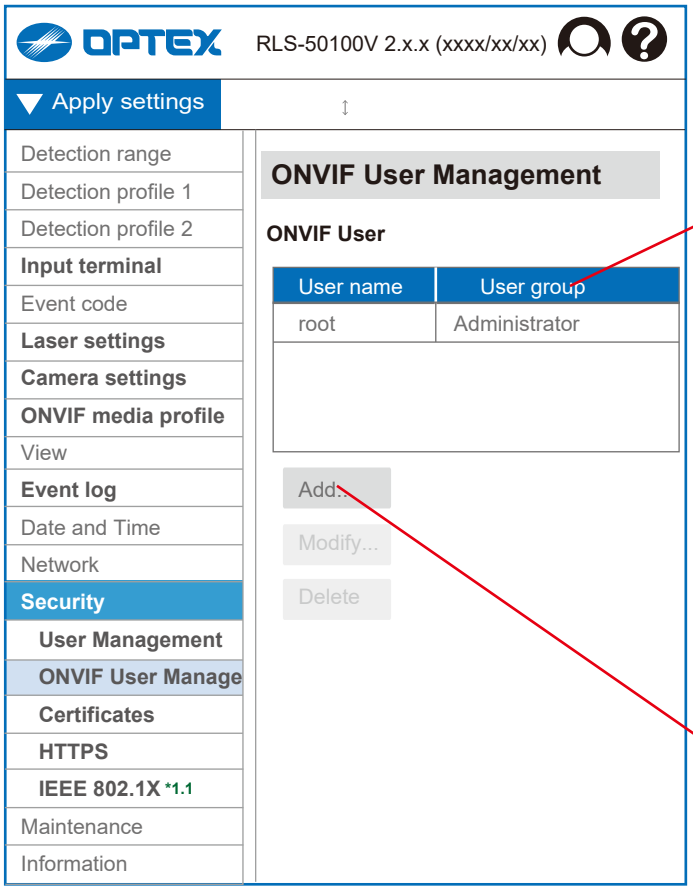
Password

The password must be 8 characters or more, and should be set with a combination of 2 or more types of numbers, uppercase letters, lowercase letters, and symbols.

Confirm password

OK

Cancel



(Bold letters = advanced settings)

*1.1 = Ver.1.1 or later

5-7-2. ONVIF User Management

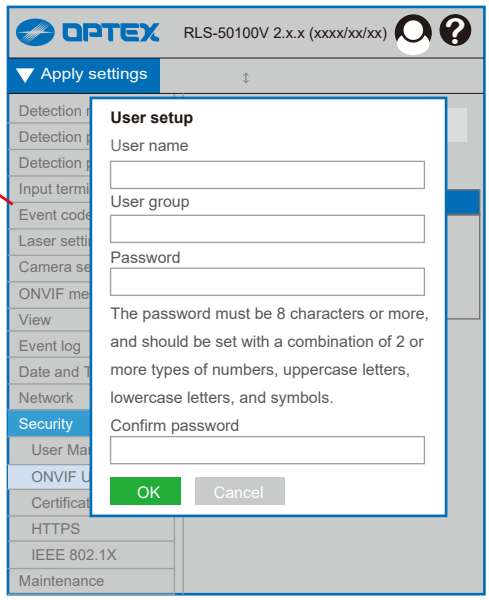
User list

Add a new user

Modify the selected user

Delete the selected user

This is the first item that needs to be set when using ONVIF. See ***Chapter 3*** for details.



User setup

User name

User group

Select user group that is defined by ONVIF.

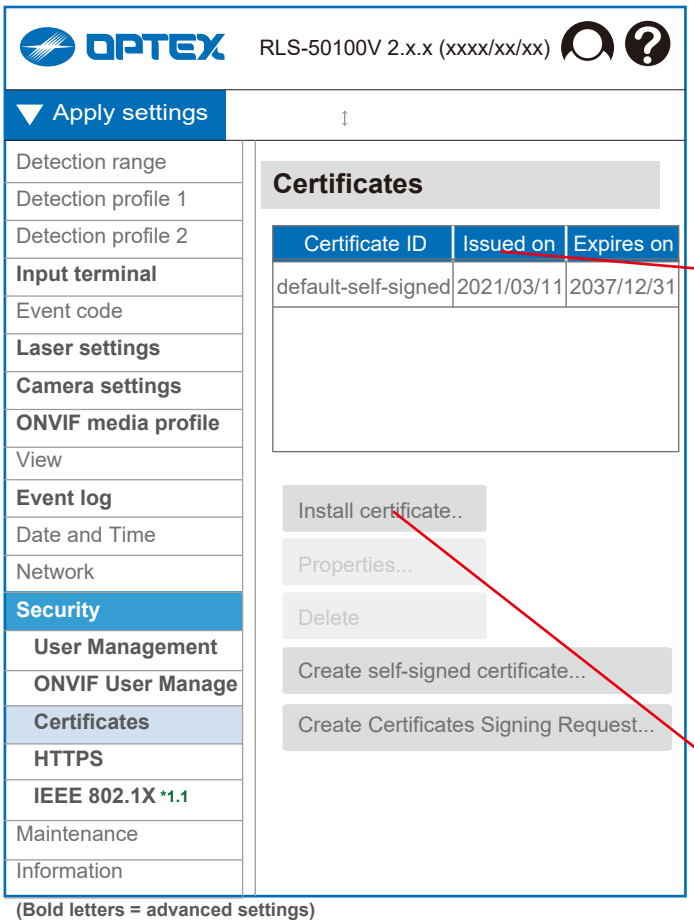
Password

The password must be 8 characters or more, and should be set with a combination of 2 or more types of numbers, uppercase letters, lowercase letters, and symbols.

Confirm password

OK

Cancel



(Bold letters = advanced settings)

*1.1 = Ver.1.1 or later

5-7-3. Certificates

Create/install a certificate required for server communication in HTTPS and IEEE 802.1X.

Certificate ID list

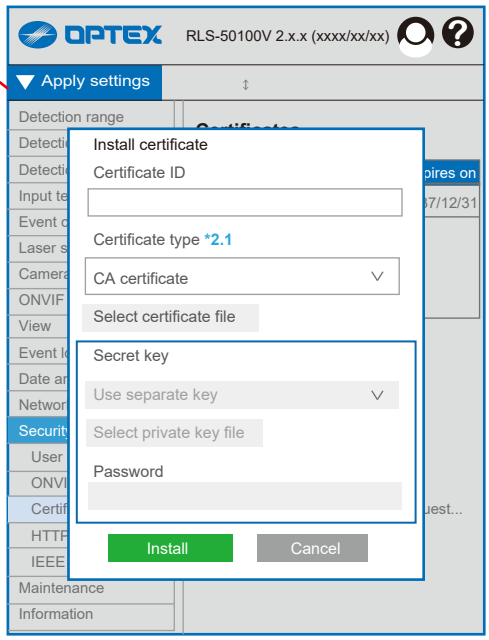
Install a certificate ID

Properties

Delete the current ID

Create self-signed certificate ID

Create Certificate Signing Request



Install certificate

Certificate ID

Certificate type *2.1 (Ver.2.1 or later)

[CA certificate, Certificate from signing request, Certificate and private key]

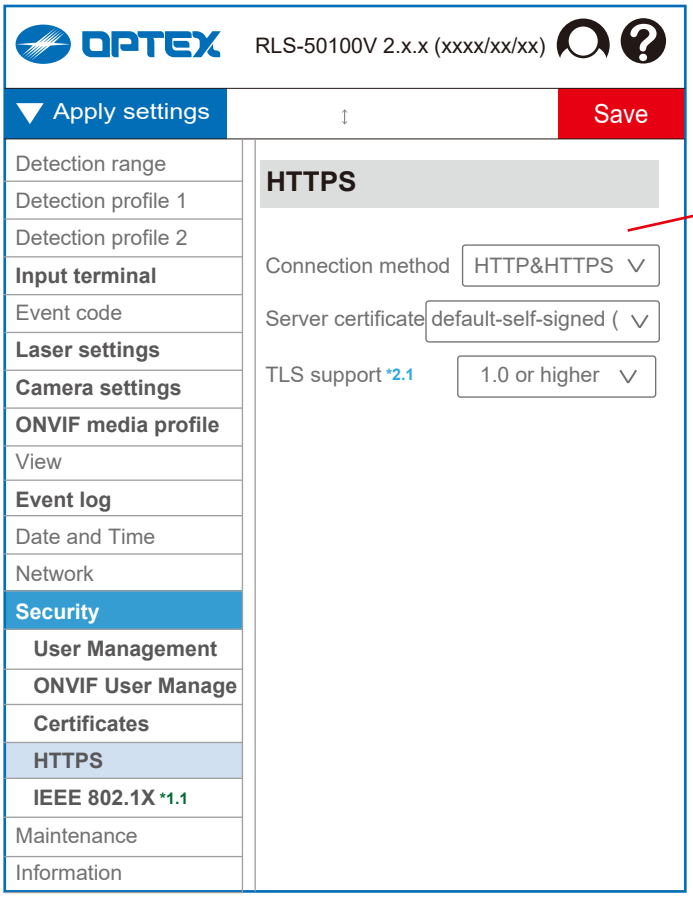
Select certificate file

Secret key

- Use separate key
- Select private key file
- Password

Install

Cancel



(Bold letters = advanced settings)

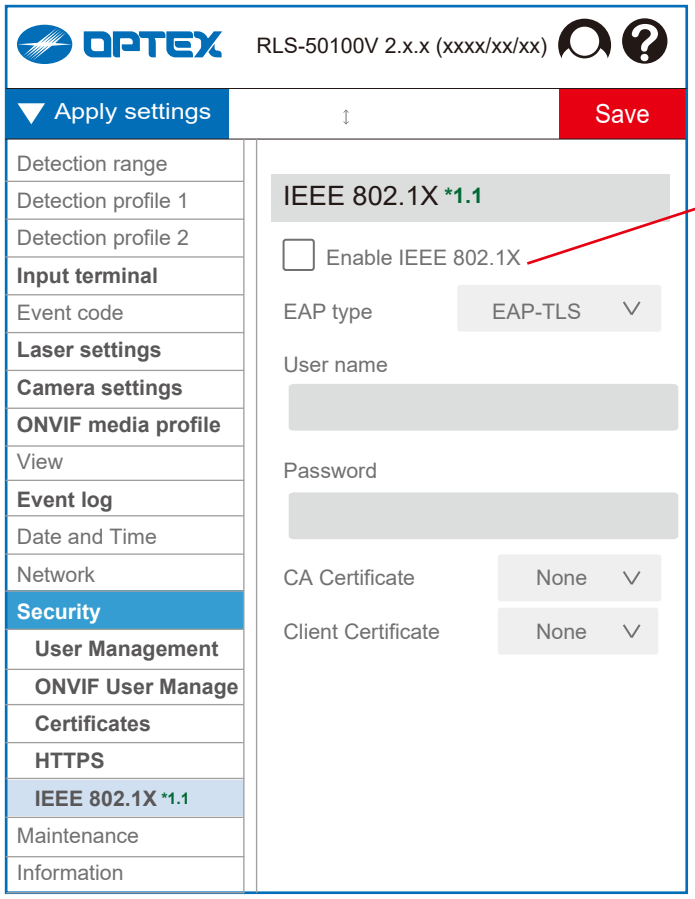
*1.1 = Ver.1.1 or later

5-7-4. HTTPS

Connection method [HTTP, HTTPS, HTTP & HTTPS]

Server certificate [None, default-self-signed (- 20xx/xx/xx)]
Choices are added when the certificate is created.

TLS support *2.1 (Ver.2.1 or later)
[1.0 or higher, 1.1 or higher, 1.2 or higher, 1.3 only]



(Bold letters = advanced settings)

*1.1 = Ver.1.1 or later

5-7-5. IEEE 802.1X *1.1 (Ver.1.1 or later)

Enable IEEE 802.1X

EAP type [EAP-TLS, PEAP-MSCHAPv2]

User name

Password

CA certificate

Add the certificate to be used in "5-7-3. Certificates".

Client certificate

Add the certificate to be used in "5-7-3. Certificates".

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