



Wireless **M**onitoring **U**nit User Guide

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1. System setup

1. 1. System Setup Process

To set up the system:

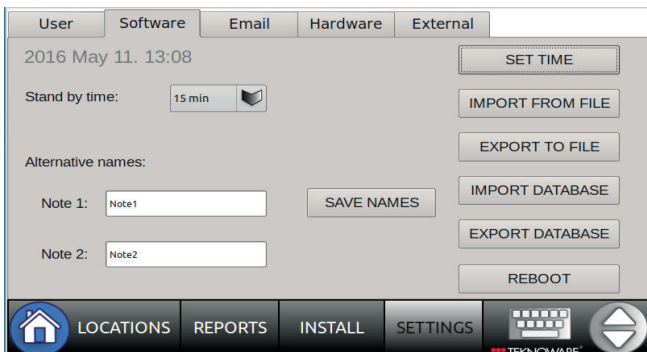
1. Log in for the first time and change the administrator password (*Chapter 1. 2*)
2. Check, and set the system time (*Chapter 1. 3*)
3. Make the necessary software settings (*Chapter 1. 3*)
4. Make the necessary hardware settings, and add the (optional) external coordinator (*Chapters 1. 4 - 1. 5*)
5. Add the Locations to the system (*Chapter 1. 6*)
6. Add the luminaires to the system (*Chapter 1. 7*)
7. Create the user accounts (*Chapter 1. 8*)
8. Set up email addresses for the email reporting function (*Chapter 1. 9*)
9. Place the luminaires into the Locations created previously (*Chapter 2. 4*)
10. Add notes to luminaires to help identify them (*Chapter 2. 5*)

1. 2. First Login

When logging in for the first time, the system will prompt for a username and a password. **The default username is "ADMIN" and the password is "1234". Make sure you change the password as soon as possible (see *Chapter 1.8 Creating user accounts* for more information).**

1. 3. Setting up Software settings

To change the software settings, tap SETTINGS and go to the Software tab:



Before making further system changes, make sure to check and set the system time by tapping the SET TIME button, and typing in the correct time and date.

After setting the system time, make the following settings:

1. Stand by time: select a “screensaver” time. I.e., after the system has been idle for this period of time, the system will dim the screen. If the system remains idle for another identical time period, the system goes to stand by mode and logs out the current user.
2. Alternate names: From here you can change the titles for Note 1 and Note 2 luminaire data fields. You can change the titles to for example *Name* and *Location*. Tap SAVE NAMES button after changing the names.
3. You can import or export the luminaire data into a USB drive by using the IMPORT FROM FILE or EXPORT TO FILE buttons. You can also import or export the entire Aalto Control WMU database, by tapping the IMPORT DATABASE or EXPORT DATABASE buttons. **It is recommended, that after all the settings are done, and all the luminaires are installed, a backup file is created by exporting the database.**

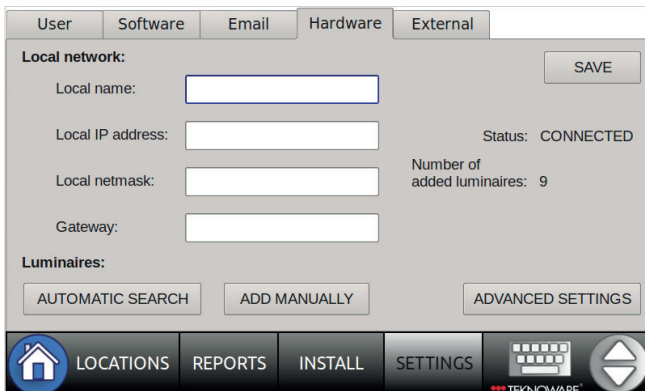
NOTE!

If you intend to import the luminaire data from a CSV file, and the said file includes Location data (Buildings and Areas), you do not need to pre-create the Locations. They will be created automatically during import.

4. REBOOT button: reboots the system (required for running a WMU software update)

1. 4. Setting up Hardware settings

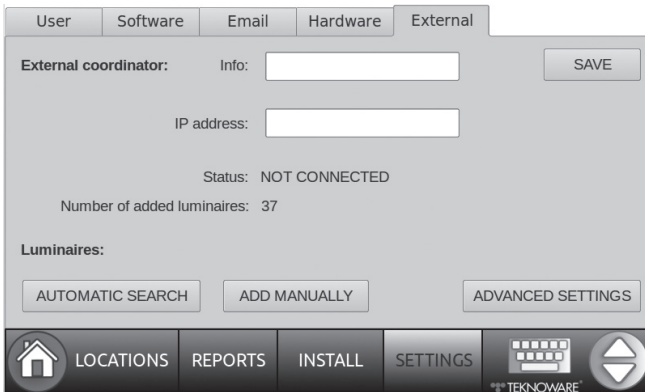
The Hardware settings must be set before using the email reporting option. To change the Hardware settings, tap SETTINGS and go to the Hardware tab:



The Local name is an open text field, which can be used for naming the device.

Local IP address, Local netmask and Gateway are set according to the local network settings. Contact your network administrator or IT-support if you do not know these settings.

1. 5. Setting up External Coordinator



Make sure that the external coordinator and the Aalto Control WMU unit are both connected to the network. Type in the IP address of the external coordinator, and tap SAVE. The IP address is set according to the local network settings. Contact you network administrator or IT-support if you do not know the IP address. The “Info” -field is an optional free text field, that can be used for adding relevant information about the coordinator.

If an internet connection is not needed (i.e. the email reporting is not in use) or connection to an enterprise LAN (Local Area Network) is not wanted, it is possible to create a WMU specific address space. This means connecting an external coordinator either directly to the ethernet connector, or to the WMU, via a router. In this case, make sure the Aalto Control WMU and the external coordinator are in the same address space by setting the addresses, for example, as such:

- Local IP address: 192.168.42.39
- Local netmask: 255.255.255.0
- Gateway: 192.168.42.1
- External IP address: 192.168.42.40

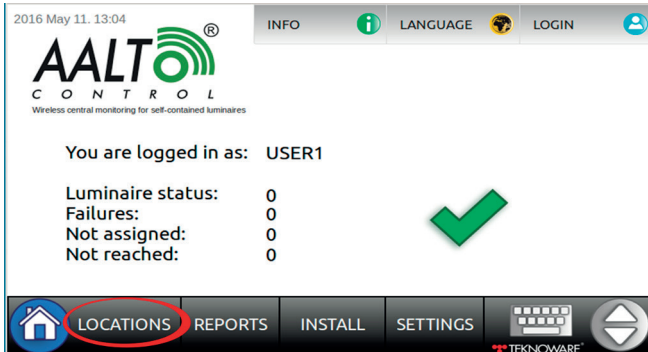
1. 6. Adding Locations (Areas and Buildings)

NOTE!

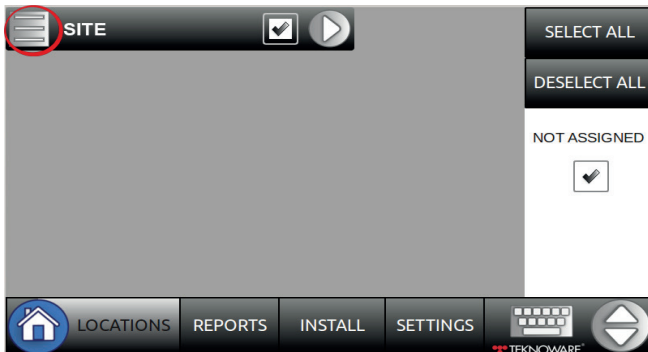
If you intend to import the luminaire data from a CSV file, and the said file includes Location data (Buildings and Areas), you do not need to pre-create the Locations. They will be created automatically during import.

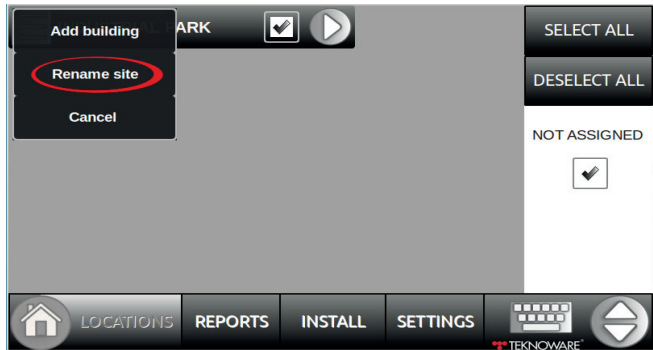
Locations are the categories you can later add the luminaires into. There are three different levels of Locations: **Site** is the root-level Location, which includes the entire Aalto Control WMU system. There is only one Site in the system, and it is pre-created. The Site can be renamed. The next level of Locations are **Buildings**. There can be several Buildings, each of them can contain several **Areas**, which is the 3rd, and lowest level of Locations.

1. Tap "LOCATIONS":



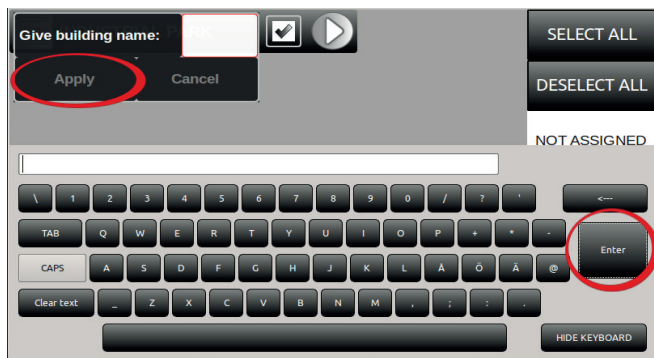
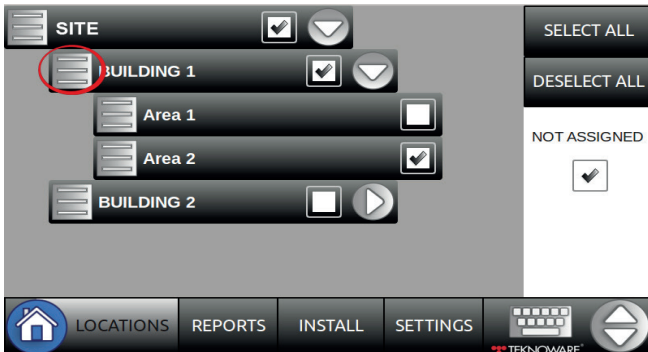
2. To name the Site, click the menu icon next to the Site name, and select Rename site:





3. Type the Site name (for example the company name) and tap Enter, and then Apply.

4. Tap the menu icon again, and select Add Building. Name the Building (e.g. BUILDING1), tap Enter, and then Apply.



5. If you want to add more Buildings, repeat step 4

6. To add an Area, tap the menu icon next to the Building name, tap Add area, name the area (e.g. FLOOR 2), and tap Enter.
7. If you want to add more Areas, repeat step 6
8. To remove Buildings or Areas, tap the corresponding menu icon, and tap Remove... **Note that removing a Building will remove all Areas under that Building!**

1. 7. Adding Luminaires

1. Tap SETTINGS, and open the Hardware tab
2. To search for luminaires in the wireless range, tap AUTOMATIC SEARCH. Wait for the automatic search to complete. The amount of added luminaires is displayed.
3. To install a luminaire manually, click ADD MANUALLY and fill in the data fields (RF ID and Type are mandatory).

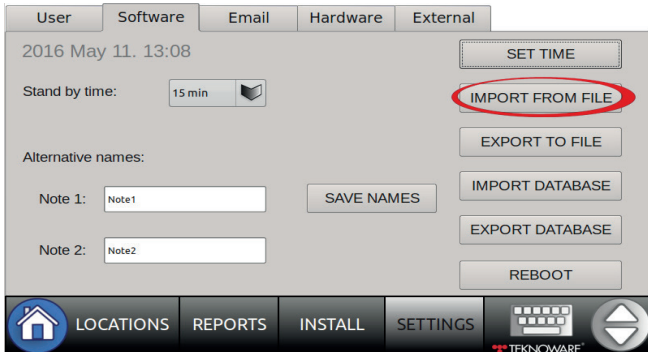
NOTE!

The ADVANCED SETTINGS are for authorized maintenance use only. Do not change these settings!

The screenshot displays the 'Hardware' settings tab. Under 'Local network', there are input fields for 'Local name', 'Local IP address', 'Local netmask', and 'Gateway', along with a 'SAVE' button. The status is 'CONNECTED' and the 'Number of added luminaires' is 9. In the 'Luminaires' section, the 'AUTOMATIC SEARCH' and 'ADD MANUALLY' buttons are circled in red. The bottom navigation bar contains icons for Home, LOCATIONS, REPORTS, INSTALL, SETTINGS, and a keyboard icon.

4. To import the luminaire data from a CSV file, go to the Software tab, insert the USB drive containing the CSV file, and tap IMPORT FROM FILE button. Select the file and confirm the import with the corresponding button.

After adding the luminaires to the system, you can add the luminaires to Locations, and add Note and Type information to the luminaires. This can be done either manually with the Aalto Control WMU console, or with a spreadsheet software. See Appendix 1 for instructions on how to use a spreadsheet / CSV file to add the information.



1. 8. Creating user accounts

1. Tap SETTINGS, and go to the User tab.
2. Tap NEW to add a new user, and fill in the required fields. User levels are:
 - **Basic** user can access the LOCATIONS and REPORTS views to view luminaire errors and other info.
 - **Advanced** user can also access the INSTALL view to set Luminaire notes, place Luminaires into Locations etc.
 - **Administrator** user can also access the SETTINGS view to change software settings, create user accounts etc.
3. To change a password for an existing user account, select a user from the list, and tap EDIT
4. To remove a user account, select a user from the list, and tap DELETE. Note that you cannot delete an Administrator user account, if the account is the last Administrator account in the system.

NOTE!

***Make sure your administrator password is not lost.
If the password is lost, contact Teknoware's After Sales.***

1. 9. Email reporting settings

NOTE!

To use email reporting, the Aalto Control WMU needs to be connected to internet.

1. Tap SETTINGS, and go to Email tab.

User	Software	Email	Hardware	External
E-mail 1: Not reached: Failures: Reports:				
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 day
				SAVE
E-mail 2:				
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 day
				TEST EMAIL
E-mail 3:				
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 day
				SET SERVER
E-mail 4:				
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 day

2. Add 1-4 email addresses where you want the system to send reports

3. Select the options for the email reporting:

- Not reached: Sends an email report if there are luminaires that have not responded to queries by Aalto Control WMU in 7 days.
- Failures: Sends an email report, if there are luminaires with failures in the system
- Reports: sends an email report according to the set Time interval even if there are no failures, and all luminaires have been reached normally by the Aalto Control WMU
- Time interval: defines how often the defined report is sent.

4. Tap SAVE to save the settings.

5. To test the email reporting, tap TEST EMAIL.

NOTE!

The SET SERVER settings are for authorized maintenance use only.

Do not change these settings!

1. 10. Updating the Aalto Control WMU Software

1. First, make a backup from the Aalto Control WMU database (*Chapter 1. 3*).

2. Copy the update files received from Teknoware to a USB drive's root folder, and insert the USB drive to the USB port.

3. Go to SETTINGS -> Software, and tap REBOOT.

4. Follow the instructions on the screen.

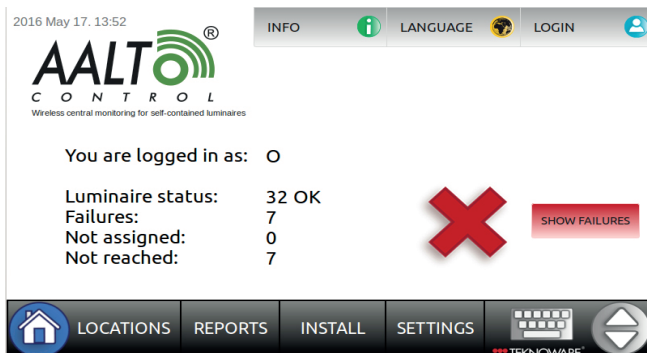
2. Basic functions

With the Aalto Control WMU you can:

- Check faulty luminaires
- Divide the luminaires into previously created locations
- Set Note data for luminaires
- View luminaire status and information
- View test and event history, and export said history to a USB DRIVE for further use
- Set test prohibition schedules to prohibit the self testing of luminaires in certain time periods
- Set luminaires to BLINK state, or switch Exit Luminaires ON or OFF.

2. 1. Checking faulty luminaires

When faulty luminaires are present in the system, the system will notify it by displaying a large red symbol “X”, and a text box “SHOW FAILURES” in the main screen. Tapping the text box will automatically display a list of faulty luminaires. If there is only one faulty luminaire, detailed information about it will be shown.



2. 2. Quick Guide for using basic functions in REPORTS and INSTALL views

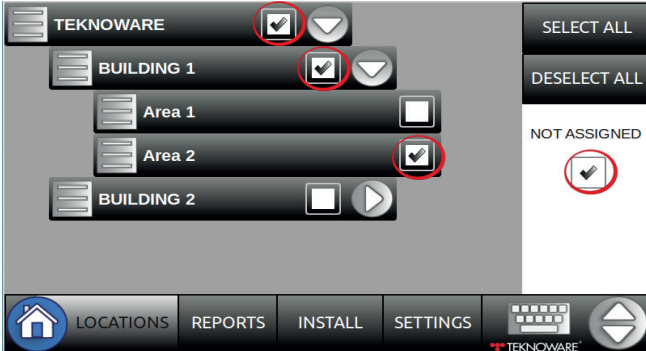
When using any of the other basic functions described above, the workflow is always identical:

1. First, tap LOCATIONS and select where the luminaires to be affected with the intended actions are located.
2. Then, filter a list of the luminaires to be affected by the intended actions from the REPORTS > Filter tab or from the INSTALL view.
3. This Luminaires List can now be affected with the various tools of Aalto Control WMU. Note that you can select individual luminaires from the list too.

See the next chapter for more detailed instructions of using the REPORTS view’s Filter tab.

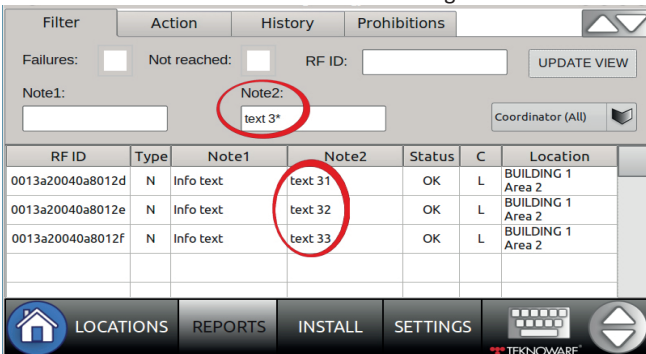
2. 3. Using Filters (creating a Luminaires List)

1. To display the desired luminaires in REPORTS view, always first tap LOCATIONS and select the Site, Buildings and/or Areas, in which the luminaires to be shown are located.
2. To display unassigned luminaires in the reports view, select NOT ASSIGNED
3. You can also select all locations, or deselect all locations by tapping the corresponding buttons.



4. To filter the luminaires, tap REPORTS and select Filter tab

- Note 1 and Note 2: Filters the luminaires according to the Note data fields. A wildcard * can also be used (e.g. in Note2, the value "text 3*" displays all luminaires starting with "text 3" in Note2).
- Selecting Failures and/or Not reached will display the desired luminaires accordingly.
- If an external coordinator is used, the luminaires can be filtered by selecting the desired Coordinator.
- RF ID: filters the luminaires according to their RF ID. A wildcard * can also be used.



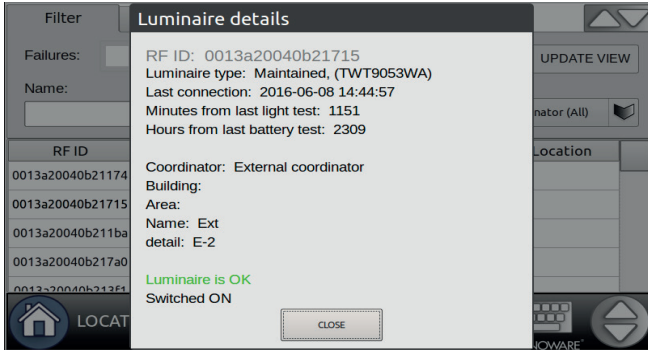
5. Note that you can also select multiple filters, to optimize the results.

- Finally, tap the UPDATE VIEW button, to display the filtered luminaires (in REPORTS) in the selected locations (in LOCATIONS).

NOTE!

Depending on the amount of luminaires, displaying the luminaires may take a while.

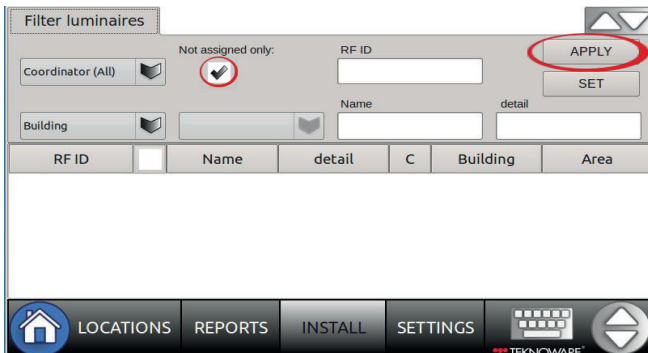
- Tapping the RF ID cell of a luminaire in the table will display additional luminaire information on the screen:



- Whenever you wish to target another group of luminaires, always go to LOCATIONS first and, after that, filter the desired luminaires in REPORTS view.

2. 4. Adding luminaires to locations (INSTALL view)

- Select NOT ASSIGNED from LOCATIONS.
- Tap INSTALL, and select Not assigned only.
- Use the filters, if applicable, and tap APPLY.



- Select the luminaire(s) you wish to add to a location (in the image two first luminaires are selected) and tap SET:

Filter luminaires

Coordinator (All) Not assigned only: RF ID:

Building: Name: detail:

RF ID		Name	detail	C	Building	Area
0013a20040b213f1	<input checked="" type="checkbox"/>	exit 2	E-5	E		
0013a20040b5ae57	<input checked="" type="checkbox"/>	exit 2	L-1	L		
0013a20040b2119e	<input type="checkbox"/>	exit 2	E-9	E		
0013a20040b21768	<input type="checkbox"/>	exit 2	E-10	E		

LOCATIONS REPORTS INSTALL SETTINGS

- Choose the Building and Area you wish to add these luminaires to. You can also write values for the Note fields, if you wish to add a note for all the selected luminaires.
- Tap apply, and approve the changes by clicking OK.
- Tap < in the right upper corner of the screen to return to Install view

2. 5. Adding Notes to luminaires (INSTALL view)

- Create a Luminaires List to INSTALL view, as described in *Chapter 2. 2*.
- To add a Note to an individual luminaire, tap the Note field of said luminaire, and type the Note.
- To add Notes to several luminaires at the same time: select the luminaire(s) you wish to add a note to (when choosing several luminaires, please keep in mind that the same Note will be added to all selected luminaires), and tap SET:

Filter luminaires

Coordinator (All) Not assigned only: RF ID:

Building: Name: detail:

RF ID		Name	detail	C	Building	Area
0013a20040b213f1	<input checked="" type="checkbox"/>	exit 2	E-5	E		
0013a20040b5ae57	<input checked="" type="checkbox"/>	exit 2	L-1	L		
0013a20040b2119e	<input type="checkbox"/>	exit 2	E-9	E		
0013a20040b21768	<input type="checkbox"/>	exit 2	E-10	E		

LOCATIONS REPORTS INSTALL SETTINGS

- Write values for the Note fields.

5. Tap APPLY, and approve the changes by tapping OK.
6. Tap < in the right upper corner of the screen to return to Install view

2. 6. Using Action tab (REPORTS view)

From the Action tab, you can set luminaires to BLINK state, remove the luminaires from the system and all locations, or set the Exit lights OFF or ON. Note that switching an Exit light OFF or ON must be enabled from SETTINGS -> User, and can be done only when logged in as an administrator user.

To use these actions, first create a Luminaires list in LOCATIONS view, as described earlier, then go to REPORTS, choose Action, select the luminaires to be targeted, and tap the corresponding button (BLINK or REMOVE).

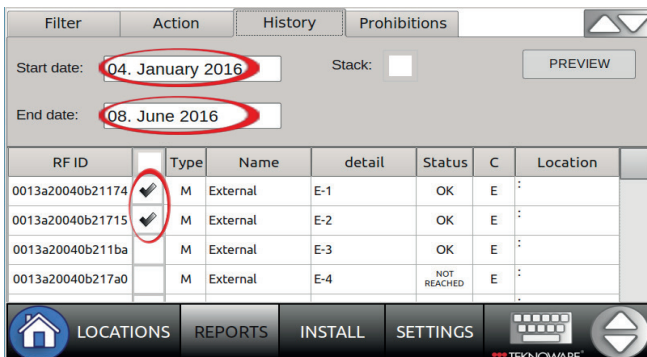
Using the BLINK function, will make the selected luminaires blink for 1-5 minutes, depending of the system layout and luminaire model.

Using the REMOVE function will delete the selected luminaires from the system. This cannot be undone.

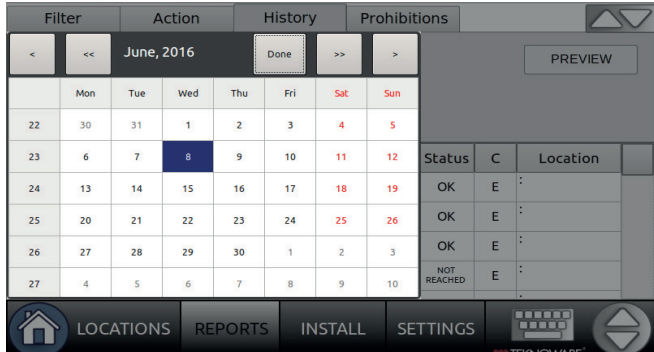
2. 7. Using History tab to create a test log (REPORTS view)

In the History tab, you can view the test history of the luminaires, and export the history log to a CSV file. To do so:

1. Create a Luminaires List to REPORTS view, as described in *Chapter 2. 2*.
2. Go to REPORTS, and tap the History tab. Select the luminaires you wish to include to the History report.



RF ID	Type	Name	detail	Status	C	Location
0013a20040b21174	<input checked="" type="checkbox"/> M	External	E-1	OK	E	:
0013a20040b21715	<input checked="" type="checkbox"/> M	External	E-2	OK	E	:
0013a20040b211ba	<input type="checkbox"/> M	External	E-3	OK	E	:
0013a20040b217a0	<input type="checkbox"/> M	External	E-4	NOT REACHED	E	:



3. Select the STACK option, if you wish to stack all events by an individual luminaire into a single row. I.e., if this option is not selected, each individual event will create a row. In stacked view, tapping the "+" -symbol will open all stacked events to single rows.

Stack selected:

RF ID	+	Location	Test result	Time stamp	<
0013a20040b213df	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:44:08	
0013a20040b21640	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:44:01	
0013a20040b215d9	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:43:57	
0013a20040b2119e	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:43:52	
0013a200409baa84	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:43:51	
0013a200409ba7d6	+	Factory: Production hall	Luminaire is ok	2016-03-07 10:43:48	

EXPORT HISTORY TO CSV FILE

LOCATIONS REPORTS INSTALL SETTINGS

Stack not selected:

RF ID	Location	Name	detail	Test result	Time stamp	<
0013a20040b21174	:	External	E-1	Luminaire is ok	2016-05-10 00:15:07	
0013a20040b21174	:	External	E-1	Luminaire is ok	2016-05-10 00:00:30	
0013a20040b21174	:	External	E-1	Luminaire is ok	2016-05-09 09:48:01	
0013a20040b21196	:	Ext	E-20	Luminaire is ok	2016-05-16 04:14:48	
0013a20040b21196	:	Ext	E-20	Luminaire is ok	2016-05-15 22:16:10	
0013a20040b21196	:	Ext	E-20	Light source test done	2016-05-15 16:56:22	
0013a20040b21196	:	Ext	E-20	Luminaire is ok	2016-05-15 04:14:56	

EXPORT HISTORY TO CSV FILE

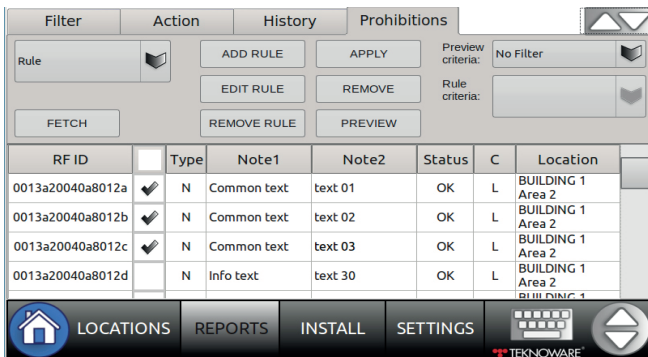
LOCATIONS REPORTS INSTALL SETTINGS

4. Tap PREVIEW to create the list.
5. If you wish to export the list, insert a USB drive and tap EXPORT HISTORY TO CSV FILE button. Select a file you wish to export the list to, or tap SELECT without selecting a file to create a new file.

2. 8. Using Prohibitions tab to create test schedules (REPORTS view)

Test prohibition (only for selected Teknoware luminaire models)

With the Test prohibition tool you can set up time periods, during which the luminaires are not allowed to run tests.



To add a Test Prohibition Rule:

1. Create a Luminaires List to REPORTS view, as described in *Chapter 2. 2*.
2. Go to Prohibitions tab, and tap the ADD RULE button.
3. Type a name for the prohibition rule. Set up the time period on which you want to prohibit luminaire self testing. Select whether you want the Prohibition time to affect all tests, or only duration tests. Tap the SAVE button.
4. A Prohibition Rule is now created.
5. You can modify the Prohibition Rule by selecting a Rule, and clicking the EDIT RULE button. To remove a Rule from the system, select a Rule and click the REMOVE RULE button.
6. To apply this Prohibition Rule, select luminaire(s) from the Luminaires list, and tap the APPLY button. Selected luminaires can be removed from a prohibition rule with the REMOVE button.

NOTE!

Modifying a Prohibition Rule WILL affect all the luminaires using the said prohibition time rule!

NOTE!

Carefully plan the Test Prohibitions before implementing them, leaving enough time for each luminaire to run the automatic tests. It is recommended that no less than 12 hours of "free" time is left for each luminaire. Also note, that overlapping or large Test Prohibition groups may result in groups of luminaires running tests simultaneously.

Checking test prohibitions

To check, which luminaires are included in a prohibition rule, select the rule from the Rule dropdown list, and tap FETCH. This will display all the luminaires with the selected rule in the Luminaires List.

Sometimes more detailed information about luminaires affected by prohibition rules is useful. You might, for example, want to know which luminaires are prohibited to run tests on Mondays. Or maybe you have used the Note 1 field to specify the location of the luminaires, and now need to know when the emergency luminaires in the front lobby have test prohibitions.

To create a detailed list of the test prohibition rules and the luminaires they affect, you can use the PREVIEW button. To filter the PREVIEW list, choose a criteria by which the list is filtered by. To do so:

1. Choose a Preview criteria from the list. For example, if you wish to create a list of all the luminaires that are prohibited to perform tests on a certain day, choose "Test Time". Or, if you wish to create a list of luminaires with a specific Note 1 data, choose Note 1.
2. Choose a Rule criteria. Continuing the example above: if the certain day you wish to have test prohibition time information from is Monday, select "Mondays". Or, if the Note 1 data is "Front lobby", simply type the note data to Rule criteria. For free text fields such as Note 1, a wildcard "*" can be used. So, typing "Front*" would also do.
3. When the rules are set, simply click PREVIEW. A list of all the luminaires is displayed.

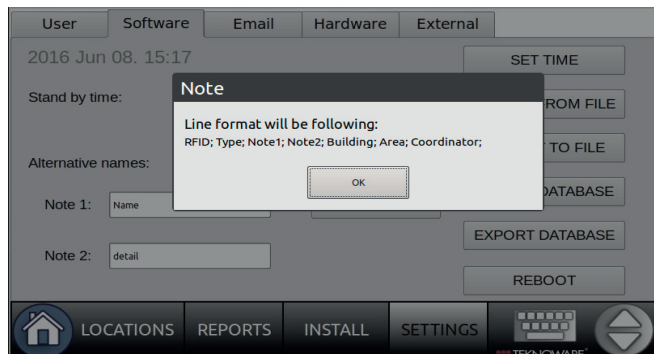
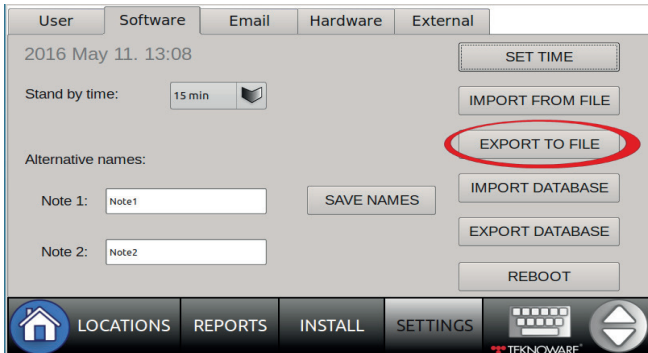
Clicking PREVIEW without setting any criteria will list all Rules, and the luminaires set to them.

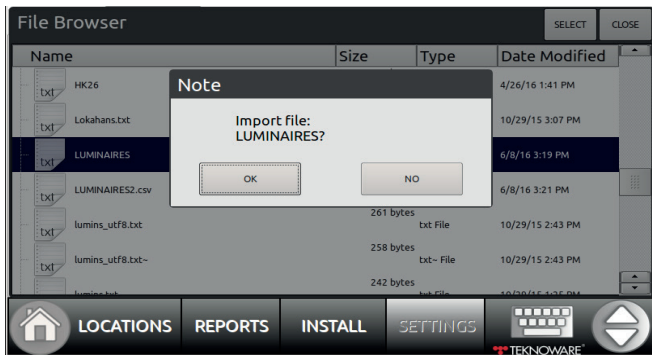
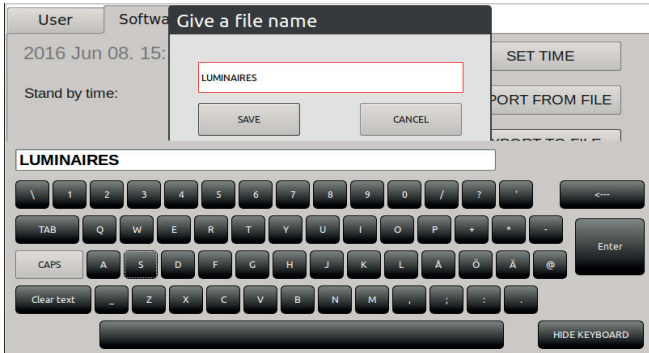
APPENDIX 1. Adding luminaire info in CSV form

When setting up the system, or making substantial updates into the luminaire info, the most convenient way to add or edit the luminaire info is by using a CSV-compatible spreadsheet software, such as OpenOffice Calc, or Microsoft Excel.

Exporting a CSV file

If you are setting up the system, add the luminaires to the system by following the instructions in Chapter “1. 4. Adding Luminaires” on page 8, before exporting the CSV file. Insert a USB drive into the USB port, and export the luminaire data to a CSV file:





Adding/editing luminaire info with a spreadsheet software

Remove the USB drive from the Aalto Control WMU, and insert it to a USB port of a computer with a CSV-compatible spreadsheet software. Open the previously created CSV file. The file contains a complete list of all the RFIDs of the luminaires in the system. Fill in the additional info, from left to right, in the following order:

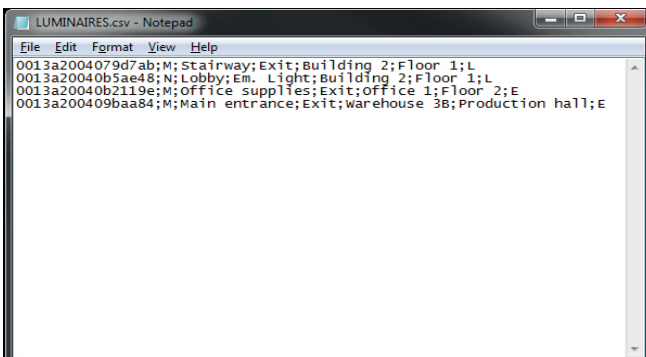
- Column **A** in the table below: **RFID**, this is pre-filled. Do not change the RFIDs exported from the system. If you have a separate RFID list of luminaires you wish to add to the system, copying the RFIDs here will add the luminaires.
- Column **B** in the table below: Type: **M** = a maintained luminaire (an exit light), **N** = a non-maintained luminaire (an emergency light), **3rd** = a third party luminaire
- Columns **C-D** in the table below: Note 1 and Note 2 = text fields for additional information about the luminaire
- Columns **E-F** in the table below: Building and Area = The Locations, in which the luminaires are defined to. Note that these are **not** open text fields: these locations will be used in the Locations view of the System. All unique locations added here will be created to the system when the CSV file is imported.
- Column **G** in the table below: Coordinator: defines whether the luminaire is connected to the local Aalto Control WMU coordinator (= L), or on an external Aalto Control Coordinator (= E).

Make sure the table contains exactly 7 cols, and that in the file there is only information described above. For example, do not create a header row for the information. Also, do not use special formatting such as colored font, bold or italics. The table should look like this:

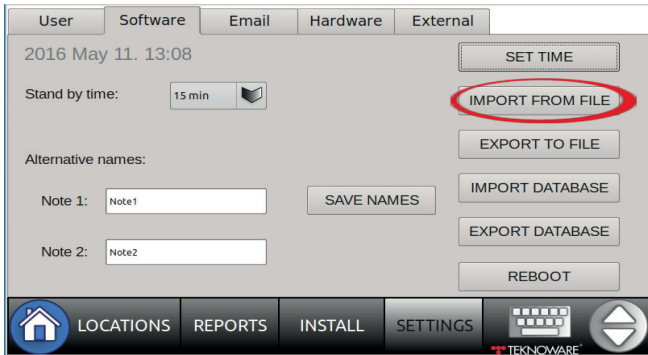
	A	B	C	D	E	F	G
1	0013a2004079d7ab	M	Stairway	Exit	Building 2	Floor 1	L
2	0013a20040b5ae48	N	Lobby	Em. Light	Building 2	Floor 1	L
3	0013a20040b2119e	M	Office supplies	Exit	Office 1	Floor 2	E
4	0013a200409baa84	M	Main entrance	Exit	Warehouse 3B	Production hall	E
5							
6							
7							
8							
9							
10							
11							
12							

In the example above, column A contains the RFIDs exported from the system. Column B is the luminaire type. In C, Note 1 is used to describe the location in more detail, and Note 2 for describing the luminaire type, in plain language. The luminaires are located in four different Building Locations (used in the WMU system). Each Building contains several Areas, three of which are being displayed here.

After adding all the necessary info, save the table in plain CSV format back into the USB drive. Make sure the file does not contain any special formatting. To make sure the file format is correct, you can open the CSV file in a plain text editor, such as Notepad. For example, the example table above would look like this:



Remove the USB drive, insert it back into the Aalto Control WMU console, and import the CSV file back to the system. The information added in the spreadsheet software is added to the system.





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