

LINKTair™



QUICK START GUIDE

WIRELESS CONTROL INSTALLATION & COMMISSIONING

SYSTEM COMPONENTS



ONLINE PROJECT PORTAL

Faster field commissioning setup

- Upload ceiling plans
- Create areas and zones
- Control sequencing



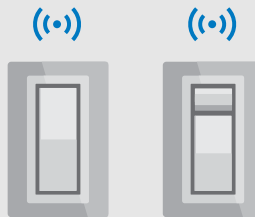
MOBILE APP

iOS app for simplified commissioning

- Add lights, sensors, and switches to zones
- Adjust profile and scenarios
- Control sequencing



WILLIAMS FIXTURES WITH LINKTair CONTROLS
Factory-installed control with radio enables connection between fixtures, wall switches, and stand-alone devices



WALL SWITCHES

- On/off, dimming standard
- Optional occupancy sensor



WIRELESS SENSORS

Integral or stand-alone

- Occupancy
- Vacancy
- Daylighting

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INTRODUCTION

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INTRODUCTION

Commission the Williams LINKTair wireless control solution in three easy steps:

1. Create a user account in the online project portal and the mobile app
2. Create a commissioning plan
 - Upload project plan
 - Set up areas, zones, and zone profile configurations
3. Commission the system after equipment has been installed and is operational
 - Add lighting devices to each zone and upload control sequencing configurations
 - Calibrate sensors
 - Test system operation

There are two (2) tools which can be used to commission the Williams LINKTair wireless control system:

- Silvair online project portal (web app)
- Silvair mobile app

SYSTEM REQUIREMENTS

- The online project portal requires a Chrome browser and an internet connection. Browsers other than Chrome are not supported.
- The mobile app requires an iOS device with iOS 12+, Bluetooth enabled, and internet connection - minimum 3G (WiFi or cellular).

HOW TO USE THIS DOCUMENT

This document organizes the commissioning process into 2 stages:

1. Planning Stage - using the online project portal
2. Implementation Stage - using the mobile app

NOTE: Small projects (20 devices or less) can be set up directly using mobile app, foregoing the planning stage.

ACCOUNT SETUP IN COMMISSIONING SOFTWARE

PLANNING STAGE (using the online project portal)	COMMISSIONING STAGE (using the mobile app)	NOTE:
Create user account in online project portal. https://platform.silvair.com	Download the Silvair mobile app to your iOS device from the Apple app store and create user account. https://apps.apple.com/us/app/silvair/id1281447717	Any changes made in the project portal can be seen in the mobile app and vice versa. After commissioning is complete, changes made in the project portal must be configured on-site using the mobile app. Project portal changes are not automatically transferred to devices on site.

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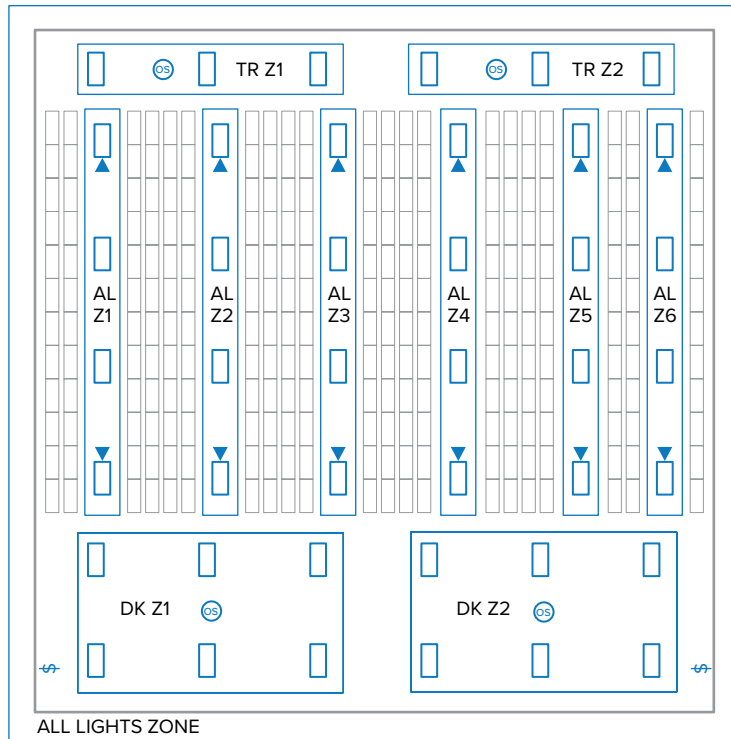
GETTING STARTED

GETTING STARTED

CONTROLS DESIGN & SEQUENCE OF OPERATIONS

Before starting, it's a good idea to understand the desired outcome of the controls strategy: what luminaires are being controlled by what means (sensor and wall switches) and the sequence of operations (how the control devices are designed to operate.) Marking up a plan showing luminaires and control points in each zone and creating a controls schedule will streamline the commissioning process and expedite on-site commissioning. For more information on designing and specifying the Williams LINKTair wireless control system, see [LINKTair Design Guide](#).

WAREHOUSE LIGHTING PLAN



Legend	Description
	Williams luminaire with LINKTair control (LA-R/DA)
	Williams luminaire with LINKTair sensors (LA-SL1/DA LA-SL2/DA)
	Williams LINKTair ceiling sensor (LA-SSL1 LA-SSL2)
	Williams LINKTair manual wall switch (LA-WS)

CONTROL SCHEDULE EXAMPLE

ZONE NAME	CONTROL DEVICE	LOCATION	CONTROL TYPE	SEQUENCE OF OPERATION ¹
ALL LIGHTS	Wall switches	Near dock doors	Manual control	Manual on, auto on/off via OCC, manual off
DK Z1	OCC sensor	Ceiling mount	OCC sensor w/daylighting	Manual on, auto on/off via OCC (15 min delay) or daylight (100fc), manual off
DK Z2	OCC sensor	Ceiling mount	OCC sensor w/daylighting	Manual on, auto on/off via OCC (15 min delay) or daylight (100fc), manual off
AL Z1	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z2	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z3	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z4	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z5	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
AL Z6	OCC sensor	Integral fixture	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
TR Z1	OCC sensor	Ceiling mount	OCC sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)
TR Z2	OCC sensor	Ceiling mount	OCC Sensor	Auto on (10 min to 30%, 10 min off delay) /auto off (all operational hours)


¹ Sequencing starts when user enters space. Organization of sequence is: start of hours of operations; during hours of operations; end of hours of operations.

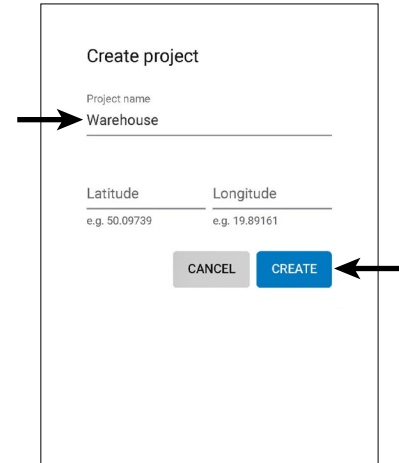
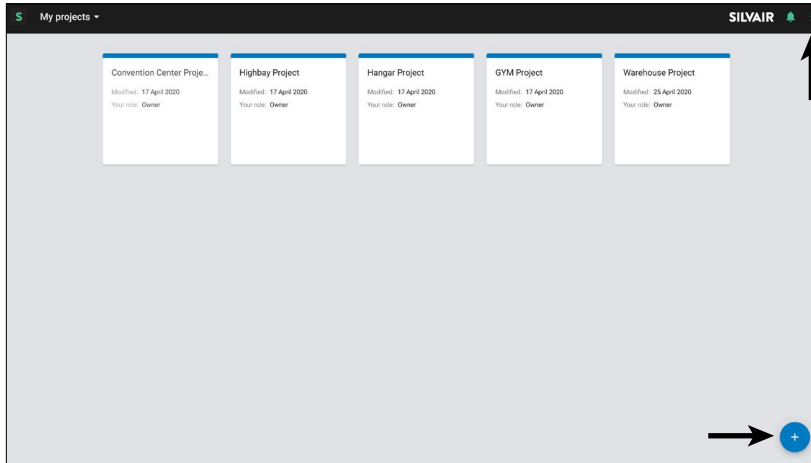
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THE PLANNING STAGE – ONLINE PORTAL


THE PLANNING STAGE – ONLINE PROJECT PORTAL

STEP 1: CREATE A PROJECT


- In the My Projects screen: click on  to start a project.
- Enter project name in pop up window and click CREATE to confirm.

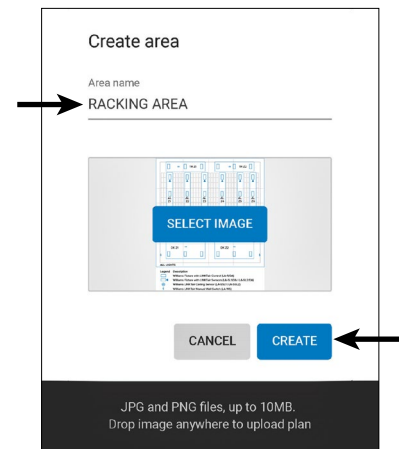
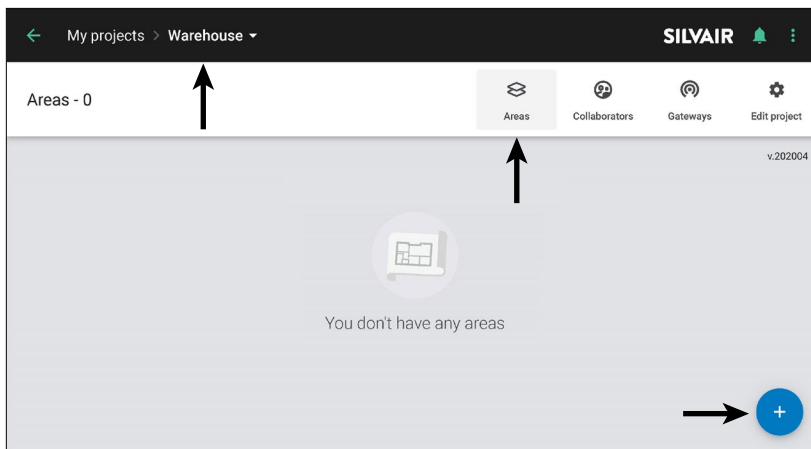


NOTE:

- A project represents a single mesh network. Any device added to the project will be part of the same network.
- Latitude and longitude are not required to create a new project.
- Click on  to reveal: edit, delete, and collaborators dialog windows.
- The user who creates the project becomes the "owner" of the project and is listed as such in the collaborators list. Refer to User Guide in Silvair web app for additional details.

STEP 2: CREATE AREAS & UPLOAD FLOOR PLANS

- Click on  to create a new area.
- Enter name of new area
- Upload an image of the area to help users locate zones during commissioning
 - Image file requirements: .jpg or .png format only with file size less than or equal to 10MB.
 - Images can only be uploaded in online project portal



NOTE:

- An area may represent more than one (1) space (like a single level of a building)
- An area may represent one (1) space (like a gymnasium)
- There can be more than one (1) areas in a project. (ex: a warehouse has a docking area and a racking area)

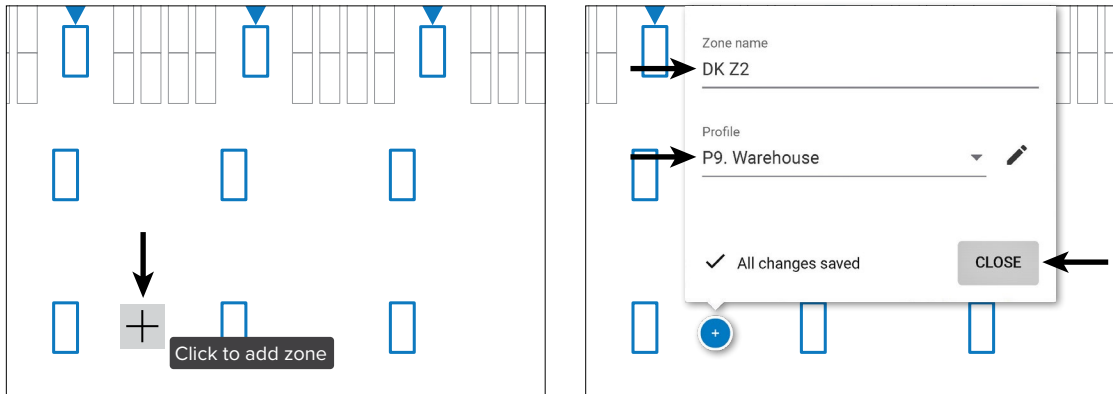
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THE PLANNING STAGE – ONLINE PORTAL

STEP 3: CREATE ZONES

For devices to be commissioned, areas must be organized into zones. A zone is a group of devices which operate according to a specific profile. Zones are not constrained by a physical space (ex: a room) since it is possible for a room to have multiple control zones. More than one zone can be added to an area.

- A. Click on the lighting plan to add a zone
- B. Fill in zone name and select a profile (See Step 4 below)



NOTE:

- Revisions can be made to zone name, control profile, or location. Add, delete or edit zones and change floor plan images at any time.
- A zone is represented on the plan area with a circular symbol, which changes depending upon zone status:

SYMBOL	ZONE STATUS	DESCRIPTION
+	Draft	A zone without a profile assigned to it. (Only available on the online web portal)
+	Ready to be commissioned	A zone is ready to be commissioned.
✓	Commissioned	A zone has been successfully commissioned: devices added and configured correctly.
!	Warning	A zone has been commissioned but requires attention or action. (ex: a device may be missing or not configured properly)

STEP 4: SET CONTROL PROFILES AND SEQUENCE SCENARIOS

Each zone must be assigned a control profile in order to be commissioned. If a control profile is not assigned, a zone cannot be setup. A control profile is a set of lighting behavior settings. Each profile has a scenario which defines the control behavior. There are 11 preset profiles. Default settings can be seen when the preset profile is clicked. Each preset profile can be customized to meet project parameters. New profiles can be created. One control profile can be used in multiple zones across the project.

PRESET PROFILES

TAG	PROFILE NAME	SCENARIO
P1.	Conference room	Vacancy sensing with daylight harvesting
P2.	Open office	Occupancy sensing with daylight harvesting
P3.	Break room	Vacancy sensing
P4.	Egress corridor	Occupancy sensing
P5.	Storage room	Manual control
P6.	Lobby	Multiple scenes
P7.	Laboratory	Occupancy sensing with daylight harvesting
P8.	Lobby	Multiple scenes
P9.	Warehouse	Occupancy sensing
P10.	Outdoor	Multiple scenes
P11.	Outdoor area lighting	Photocell

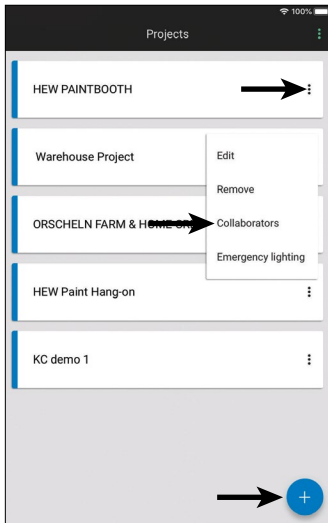
THE PLANNING STAGE IS COMPLETE. The project is ready for on-site commissioning. A plan with defined zones indicating control profiles has been created. Please proceed to **THE COMMISSIONING STAGE** on page 7

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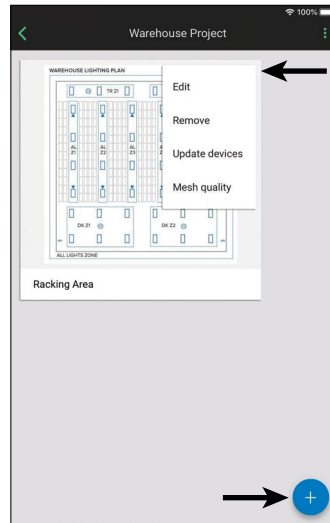
THE PLANNING STAGE – MOBILE APP

THE PLANNING STAGE – MOBILE APP

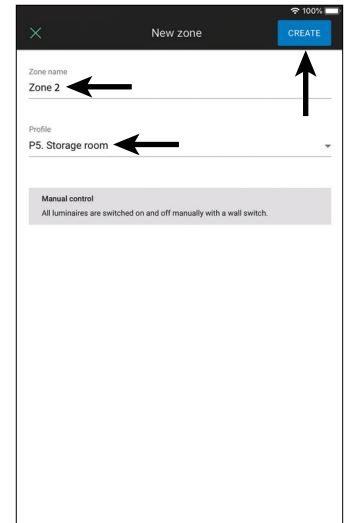
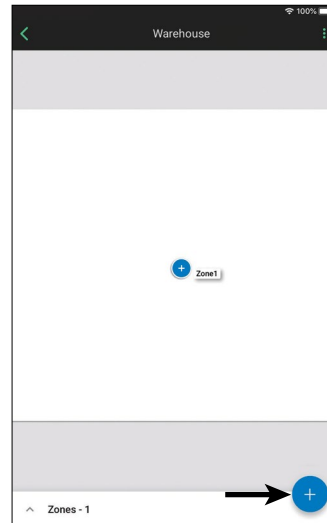
STEP 1: CREATE A PROJECT





STEP 2: CREATE AREAS





STEP 3: CREATE ZONES



STEP 1: CREATE A PROJECT

- Go to projects and tap on  to start a project.
- Enter project name and tap CREATE to confirm. Project will be created and displayed in a projects list.
- Set up collaborators: tap  to display Remove, Edit, and Collaborators options.


STEP 2: CREATE AREAS

- Open a project from project list and tap on  to create a new area.
- Enter name of new area and tap CREATE
- Tap  to display Edit, Remove, and Mesh Quality options.


NOTE:

- Project floor plans cannot be uploaded to an area in the mobile app. This can only be done in the Online Project Portal

STEP 3: CREATE ZONES

- Open the area where the new zone will be located and tap on  to create a new zone.
- Enter zone name and select a profile. See page 5 for Set control profiles and sequence scenarios.
- Tap CREATE. A new zone will display in the area.

NOTE:

- Zones can either be viewed on the screen where they were set up or in a list.  shown next to number of zones (bottom left corner) toggles zones from gallery to list.

THE PLANNING STAGE IS COMPLETE. The project is ready for on-site commissioning. Proceed to THE COMMISSIONING STAGE on page 7.

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THE COMMISSIONING STAGE

THE COMMISSIONING STAGE

Once the luminaires are installed and the controls solution is planned, the next step is commissioning the system.

BEFORE STARTING:

1. Confirm all devices (luminaires, sensors, and wall stations on the wireless mesh system) are properly installed and are powered on.
2. If not already done, install the mobile app on an iOS device. Set up a user account.
3. When on-site, ensure there is internet access (either WiFi or cellular) and Bluetooth is enabled on the iOS device.

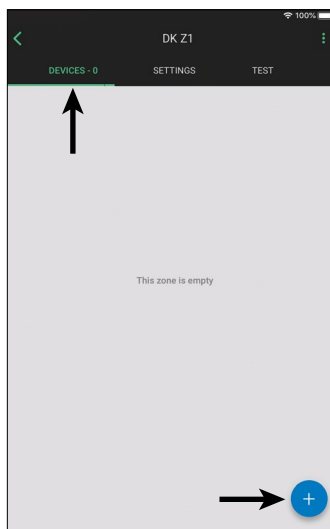
STEP 1: GO TO SITE

- A. Physically walk to first space to be commissioned with mobile app in hand.
- B. Log on to mobile app
- C. Find current location in the app by tapping: Project → Area → Zone.

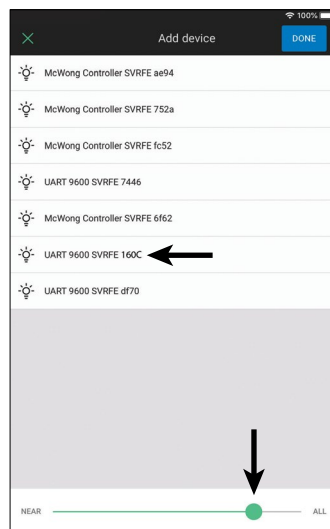
NOTE: For mobile app to work, the iOS device must be within range (approximately 50') of the device to commission it.

STEP 2: ADD DEVICES

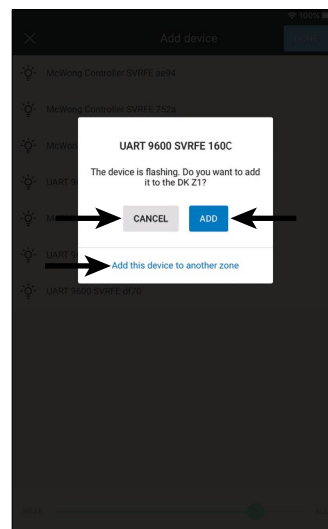
A. ADD NEW DEVICE



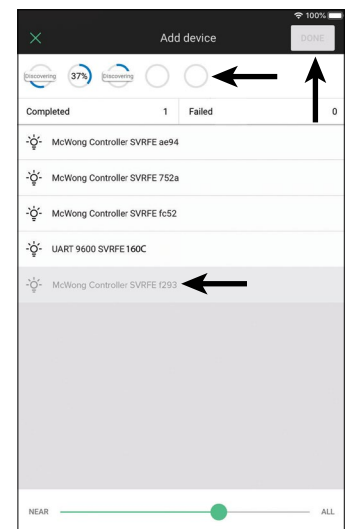
B. LOCATE DEVICE



C. ADD DEVICE TO ZONE



D. DEVICE CONFIGURATION

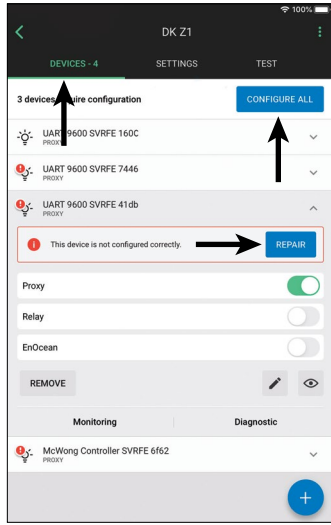


- A. Open Zone and tap to add new device.
 - A list of devices will appear.
 - Narrow down the list of devices displayed by moving the slider right to left.
- B. Locate device by tapping device name. The device selected should start flashing.
 - If selected device is the one for the current zone, tap ADD.
 - If selected device is meant for a different zone, tap ADD THIS DEVICE TO ANOTHER ZONE.
 - Tap CANCEL to exit command
- C. Devices added to the zone will start configuration.
 - Up to 5 can configure at once.
 - Closing the Add Devices window before configuration has completed will result in incorrect configuration and the zone will have to be reconfigured.
 - Device status COMPLETED or FAILED will be shown once configuration is complete.
 - If a device is grayed out on the list, it will have an icon on it showing it as inactive. Inactive devices cannot be added to a project. There are two reasons why a device would be inactive: the device has not be activated or it is out of range.
- D. Tap DONE when all required devices have been added to the zone.

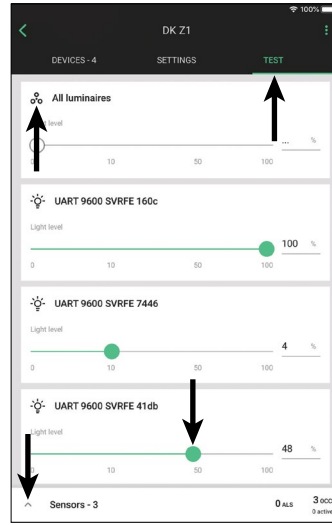
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THE COMMISSIONING STAGE

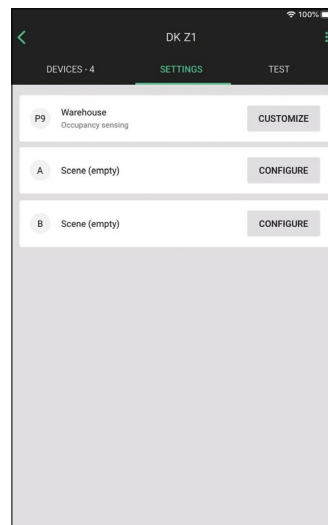
STEP 3: CHECK DEVICES



STEP 4: TEST ZONES



SETTINGS



STEP 3: CHECK DEVICES ARE PROPERLY CONFIGURED

- A. Select zone to be tested. Open DEVICES tab in that zone.
- B. By observation, if a device has an error or warning indicator, troubleshoot device.
- C. It is not necessary to configure all devices. When a device was added it should have configured.
 - If a warning icon appears indicating device was not properly configured:
 - Tap REPAIR to reconfigure device or
 - Tap CONFIGURE ALL. This will configure all devices one-by-one.
 - Manual configuration may be needed:
 - If there is a connection error or internet problem
 - If there is an interruption while any of the devices are being configured (ex: iOS device powers off)
 - If changes are made in the zone's settings (ex: changing profile, changing scenario settings, adding/editing zone linking)

STEP 4: TEST THE ZONES

- A. Tap to open TEST tab (Luminaires will react immediately during test. If luminaires do not react, troubleshoot.)
 - All devices in zone will be listed. Tap (⌵) to display devices in current zone.
 - Add, edit, or remove any devices as needed.
- B. To check which luminaires are added to the zone: Tap (⊙) (next to All Luminaires). All luminaires in the zone will begin to blink.
 - Tap ON to turn luminaires on and tap OFF to turn luminaires off.
 - Tap AUTO to activate the automatic settings for the luminaire.
 - Move slider to set test dimming function of luminaire. Brightness levels will not be maintained once luminaire control settings are activated.



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THE COMMISSIONING STAGE

FINAL CHECKS TO COMPLETE COMMISSIONING


STEP 1: CHECK THE ZONE STATUS

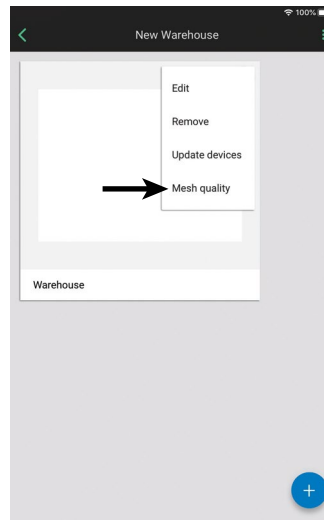
- Tap Project → Area to open area page
- Symbols shown below will indicate zone status. Troubleshoot zones with warning indicator.

SYMBOL	ZONE TYPE	DESCRIPTION
	Commissioned	A zone has been successfully commissioned: devices added and configured correctly.
	Warning	A zone has been commissioned but requires attention or action. (ex: a device may be missing or not configured properly)

- Once all zones have blue check symbols, zones are properly set up, configured and are operating properly.

STEP 2: CHECK MESH NETWORK CONNECTION QUALITY

- From the Area Page, tap  MESH QUALITY.
- Tap START TEST
- Results of test will display on the area page.
 - If red circles appear next to zone names, troubleshoot.



THE COMMISSIONING STAGE IS COMPLETE AND THE PROJECT IS FINALIZED.

NOTE: The online project portal and the mobile app synchronize. Any changes made to a project in one tool will appear and be visible in the other tool. After commissioning is completed, if changes are made using the online project portal, the on-site devices will require recommissioning using the mobile app.