

Mobile Commissioning App: *Detailed Workflow < 100 Devices*

How do you commission an Avi-on project? Follow these step-by-step instructions

Step 1) Get Ready: Schedule Assistance, Read Wiring Diagrams, Watch How-Tos

For Pre-Paid Startup:
Schedule an Appointment

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For DIY Startup:
Watch How To Videos

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For All Projects:
Read Wiring Diagrams

Click link or scan QR code >>>>

To schedule project's pre-paid or remote onsite commissioning

Or, go to [avi-on.com/contact](https://www.avi-on.com/contact) or text/call (877) 284-6689

[Avi-on.com/Contact](https://www.avi-on.com/Contact)

Click link or scan QR code >>>

Wiring Diagrams

Product Data Sheets

How To Install Videos

Commissioning Videos

[www.Avi-on.com/Resources](https://www.avi-on.com/Resources)

- LTE RAB is strongly recommended for remote assistance on any project
- Wi-Fi RAB is limited to projects < 50 Avi-on devices

Step 2) Gather Key Controls Info

- Building and energy codes such as emergency UL 924, automated light sensing (ALS), and/or occupancy/vacancy
- (If applying for utility rebates) Energy savings targets: before and after project baselines
- Lighting levels such as high- and low-end trim
- Sensor zones and order of operations
- Wall station locations and reasons for override

Step 3) Download & Update Your Avi-on Digital Toolbox

Download Mobile App From App Store

Avi-on Mobile Commissioning App is best for small-scale, simple projects*

[iTunes \(iOS\)](#)

[Google Play \(Android\)](#)

[App Overview](#)

*Small projects are generally those under about 200 devices. For large or complex projects, become trained and qualified on *Avi-on Pro for Mac*. Go to [avi-on.com/contact](https://www.avi-on.com/contact) to apply

Locate Location –or– Create New Location

One project = one location

Locations CANNOT be merged

[Scan QR Registration Video](#)

Avi-on is a secure controls platform where everyone has a password-protected account and Location Managers can use their account to manage the security of their locations

ADDERS or NEW PROJECTS SHIPPED “SETUP”: Location Already Registered

- Get access to EXISTING location from Project Manager
- Or, for projects with pre-paid Warehouse Setup, find location name in shipping docs
- Not sure if your devices are setup or “claimed?” see info below about “check the PO”
- Locations CAN be transferred to new usernames using [Location.Avi-on.com](https://www.location.avi-on.com)

NEW PROJECTS: No Location Created

1) Open *Avi-on Mobile App*

2) Enter your VALID email and info

3) IMPORTANT: Select “yes” to Bluetooth AND location pop-ups

4) Check your email box for verification email and click verification link to complete the registration process

5) Create a new location for the project

Login to the *Avi-on Mobile Commissioning App*

- Login with your username & password
- Access the desired location or create a new one
- Make sure *caps lock* is OFF
- In your PHONE’s settings, turn ON Bluetooth
- Stand close to the Avi-on device & wait for the Bluetooth logo to appear, which indicates a valid Bluetooth connection

If you are standing near a powered Avi-on device, watch for the big “+”

If no Avi-on devices are powered yet, the “can’t find your network” screen will show.

Close the app & move on to device installation

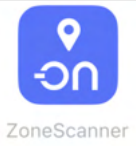
We can't find your network right now

Please check the following:

1. There are one or more Avi-on devices nearby

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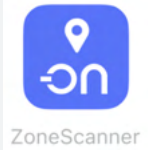
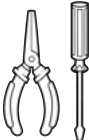
OPTIONAL — Download & Setup the ZoneScanner App 	Scan Avi-on QR Stickers and Assign Them to Zones Using <i>ZoneScanner App</i> • Login to the Avi-on Mobile Commissioning app using your Avi-on credentials • Navigate to the Location being used for the project. If you do not have access to the locations, you will need to contact the project manager • Select the “Join Location With ZoneScanner App” option • Download and install the <i>ZoneScanner App</i> using QR code below, <i>login with 4-digit code found in the previous step</i> • Enter zones into the <i>ZoneScanner App</i>. See separate <i>ZoneScanner</i> instructions for more details • Pay special note to any occupancy/vacancy or Daylight Harvesting (ALS) code requirements when placing daylight or motion sensors Download ZoneScanner App ZoneScanner How To Video 
Assemble Added Tools	Put these added tools into your backpack • Active data plan on a mobile hotspot • Voltage tester • ‘Brick’ charger for your phone 

Step 5) Host Onsite Installer Training

	1) Designate an Avi-on controls liaison to coordinate questions & details a) Explain what Avi-on controls are being installed & why b) Note low voltage power wires are usually red & black; XFAC high voltage are black & white with a pink AC load; 0-10V dimming are gray (-) & purple (+); CCT are gray (-) & orange (+) c) Share link to wiring diagrams at Avi-on.com/Resources 2) Share zones and locations where Avi-on controls will be installed & why a) For ZoneScanner projects: each installer practices scanning Avi-on QR stickers & assigning zones and using last 4-digits of QR sticker b) Non-ZoneScanner projects: practice documenting last 4-digits of QR sticker in phone’s Notes App 3) Check smart phones & data connection: make sure everyone has a data plan or Wi-Fi, that any Apps are logged in and connected 4) Make a plan to install and connect any LTE/Ethernet or Wi-Fi RABs 
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Step 6) Install Avi-on Controls

Power & Connect Network Accessories — LTE RABs are Avi-on’s newest & most powerful commissioning tool	NTM (recommended) LTE/Ethernet RAB (recommended) Wifi RAB (< 50 nodes)  1) NTMs keep clock time and are required for schedules, sunrise/sunset, & other settings 2) LTE/Ethernet RABs enable remote startup & commissioning assistance. They are shipped “plug & play.” Other RAB choices will require IT assistance to connect 3) For set-up, the Wi-Fi RAB needs to be within range of the Avi-on lighting network and the local Wi-Fi router. Recommend doing Wi-Fi RAB setup in an area with several powered Avi-on Bluetooth devices, and then moving the RAB to a secure location. <i>If IT will not allow Wi-Fi, you will need to order and substitute the LTE/Ethernet RAB</i>
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Optional: Use ZoneScanner 	• The ZoneScanner App enables installers to ‘scan and install:’ scan Avi-on product QR codes & assign them to specific zones • The ZoneScanner App can speed project startup for projects with in-fixture controls and/or a large number of devices. • Login to MyAccount.avi-on.com using the Project’s Avi-on username and password. Download a CSV of devices and zones • With the Mobile App, manually enter devices and zones. See separate instructions for details
Install Wall Stations, Sensors, & Other Avi-on Devices 	• Click QR code at right for wiring diagrams and product info >>> www.Avi-on.com/Resources 

Step 7) Add (“Claim”) Avi-on Controls

What Do the Shipping Documents Say?

Is your project ‘setup’ and are some of your devices ‘pre-claimed’?

NEW PROJECTS or ADDERS
Location Already Created

“Pre-Paid Warehouse Setup” on Shipping Docs

- Setup = **Pre-Claimed** Controllers (and RAB) = IFAC, LVFA, and XFAC already added to the project location
- Location information included in the shipping documentation
- When you wire and power “claimed” devices, then the small onboard LED will NOT be flashing
- While Setup shortens startup time, field commissioning will still be required LTE/Ethernet RABs are often “setup”
- Sensors, wall stations, and other devices require claiming in the field
- Any setup (“pre-claimed”) devices can only be used in the specified location. To use the devices in other locations, use the *Commissioning App* to REMOVE from the project’s location.
- If the device ends up in the wrong physical location (particularly in multi-building rollouts), field un-claiming and re-claiming will be required, increasing commissioning cost

NEW PROJECTS
No Location Created?

“Setup” is not listed on the Shipping Docs

- No setup = **Unclaimed** Devices
- Ask the project manager for EXISTING location OR create NEW location.
- VERY IMPORTANT: **Only use 1 location per building**. If devices are added to multiple locations in the same building, unclaiming and reclaiming will be required, increasing commissioning cost
- When you wire and power “unclaimed” devices, then the small blue LED on the controller will be FLASHING IN SETS OF TWO
- When devices are “unclaimed,” then they can be directed to any project
- The controls technician/installer will ADD all devices to the location as part of the startup and commissioning steps in this document

For ZoneScanner Projects

Download
ZoneScanner CSV Data

If you are unable to “see” all of the devices to be imported, ask all ZoneScanner users to connect to Wi-Fi and sync their ZoneScanner Apps with the cloud

Use the ZoneScanner’s data to manually enter devices & zones into the Mobile App

- 4) Login to [MyAccount.Avi-on.com](#) using your username and password. Navigate to the location
- 5) Go to *ZoneScanner Tab* and click *Export Zones* to download a CSV file of your scanned devices
- 6) Use your phone’s browser (Safari or Chrome) or a mobile app like Google Sheets or Excel to open the CSV so you can see the devices and zones
- 7) Use the *Commissioning App* to create groups that correspond to the zones on the CSV file, then map devices to the correct groups. See example of CSV file below

myaccount.avi-on.com

Locations

Default

ZoneScanner

Devices

Groups

Scenes

Schedules

Integrations

ZoneScanner

Zones scanned: 9

Devices scanned: 16

Last update at: 01/31/2023 06:53:44 -07:00

Create a Code to give a contractor access to this location. Codes will expire on the time you set when creating it. Please also note that you can remove/disable them even if they are being used.

Create Code

Export Zones

No secure temporary codes have been found.

Search

location_1620755552

Done

pid	mac_address	product_name	product_code	vendor_code	version	created_at	zone_name	zone_pid
a878f878-d615-4fc5-aaf6-4b2abaa9f28	EC60E0256BE1	AVI-1FAC-SA	42	1	1.14.3	1635880216683	5 cookies	6120f347-45ad-4e4f-ccbe-fc
18c5c490-d71e-48aa-fbda-0e0e414ec0d	EC60E0256BE1	AVI-1FAC-SA	42	1	1.14.3	1635880223439	5 cookies	6120f347-45ad-4e4f-ccbe-fc
6f14b477-836e-45ba-cc12-d765bd9e1d45	EC60E025663A	AVI-1FAC-SA	42	1	1.14.3	1635880229806	5 cookies	6120f347-45ad-4e4f-ccbe-fc
5af16fad-c13f-4a33-d8d7-e7d1dc711cfe	EC60E0258A9B	AVI-1FAC-SA	42	1	1.14.3	1635880229813	5 cookies	6120f347-45ad-4e4f-ccbe-fc
4e8c5a52-c6c4-4e8c-faff-488d11f42b68	EC60E0258A9B	AVI-1FAC-SA	42	1	1.14.3	1635880235936	5 cookies	6120f347-45ad-4e4f-ccbe-fc

Start Adding
(aka “Claiming”) Avi-on
devices using the *Mobile
App*

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Claiming a device secures it
to the project’s location

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Devices can only be in one
location at a time

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PRO TIP

During installation, use the
App to add devices
frequently

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If more than 50 unclaimed
devices are powered up at
the same time, Bluetooth
radio limitations can make
the Mobile App very slow

Press “+” to add devices

1) Stand near a powered Avi-on device
2) Power & ADD devices a few at a time

Avi-on
Starts Here

Tap the screen to add your
first Avi-on device

Your device should be powered and
nearby

Move closer to a
powered device if the
“can’t find your
network” screen
pops-up

We can't find your network
right now

Please check the following:

1. There are one or more Avi-on
devices nearby
2. Your Avi-on devices are
powered
3. You have no more phones than
Avi-on devices

Once you have started
adding devices, the “+”
will move to the upper
right of the screen

Step 8) Program Settings & Sensors

Program, Customize, &
Refine Controls Settings
Onsite

WiFi or DATA
ON

Choose the App + RAB Combo that Fits Your Project Size & Complexity

1) Mobile is designed for projects < 200 devices, low complexity, and onsite startup

a) Controls technician must be onsite and connected to either Wi-Fi or a data plan to make changes to a project using the Avi-on Commissioning App

b) When there is an LTE RAB installed, a remote technician using Avi-on Pro can assist the onsite technician with the Mobile App. Wi-Fi RABs can be used on projects with < 50 devices

c) If there is no RAB installed, no remote assistance is possible

2) Mobile and Pro do not have the same features. The larger and more complex the project, the more you will need Avi-on Pro

3) If the project has more than 150 devices, it will take longer to claim with the mobile app. Above 150 devices it is recommended to use Avi-on Pro, either on-site or through the LTE RAB.

a) It can sometimes help to reduce the number of devices that you are interacting with by only claiming a circuit or two at a time.

Workflow with ZoneScanner

- In ZoneScanner App, create zones, “scan & install”, then download CSV data & input info manually per instructions above
- Create groups
- Associate imported zones with groups
- Associate groups with sensors and wall stations
- Adjust dimming, trim, and/or color
- Set and adjust occupancy, vacancy, and/or sensor sensitivity
- Establish overrides (if any)
- Add or adjust schedules or scenes (NTM required)
- Test the setup

Workflow without ZoneScanner

- Create groups
- Add devices with groups
- Associate groups with sensors and wall stations
- Adjust dimming, trim, and/or color
- Set and adjust occupancy, vacancy, and/or sensor sensitivity
- Establish overrides (if any)
- Add or adjust schedules or scenes (NTM required)
- Test the setup

Step 9) Request Additional Services from Avi-on

Power & Connect
Optional BACnet Link

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For BMS or BCS integration

The *Avi-on BACnet Link* is an optional service used to connect Avi-on networks to Building Maintenance Systems or Building Controls Systems (BMS/BCS)

BACnet Link setup requires the Avi-on BACnet programming tool (runs on MAC or Windows) and an existing BACnet IP device on the same ethernet LAN as the BACnet bridge. Internet connection is required for the programming tool when setting up the system. Once programmed the BACnet bridge can function stand alone on-site

BACnet Link

Schedule Other
Optional Services

Notify Avi-on when the project is ready for additional services if needed. For example: **energy data reporting, BACnet Link connection, and/or ongoing maintenance contracts**

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[Avi-on.com/Contact](#)

Text or Call (877) 284-6689

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Avi-on Project Startup/Commissioning provides initial project

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programming and setup. Reconfiguration changes and/or troubleshooting are covered by Avi-on maintenance contracts

Step 10) Host Walk Through & Customer Sign-Off



- If desired, use [Location.Avi-on.com](https://location.avi-on.com) to manage user access and security for your Avi-on location/s
- Consider offering the customer a maintenance agreement for future updates and reconfiguration

Returns, Orders, Quotes, Pricing, & Billing

Sales: ProSales@avi-on.com
Orders & Returns: PO.RMA@avi-on.com
Quotes & Pricing: QuoteTeam@avi-on.com
Accounts & Billing: AP@avi-on.com
Startup Assistance: Commissioning@avi-on.com