

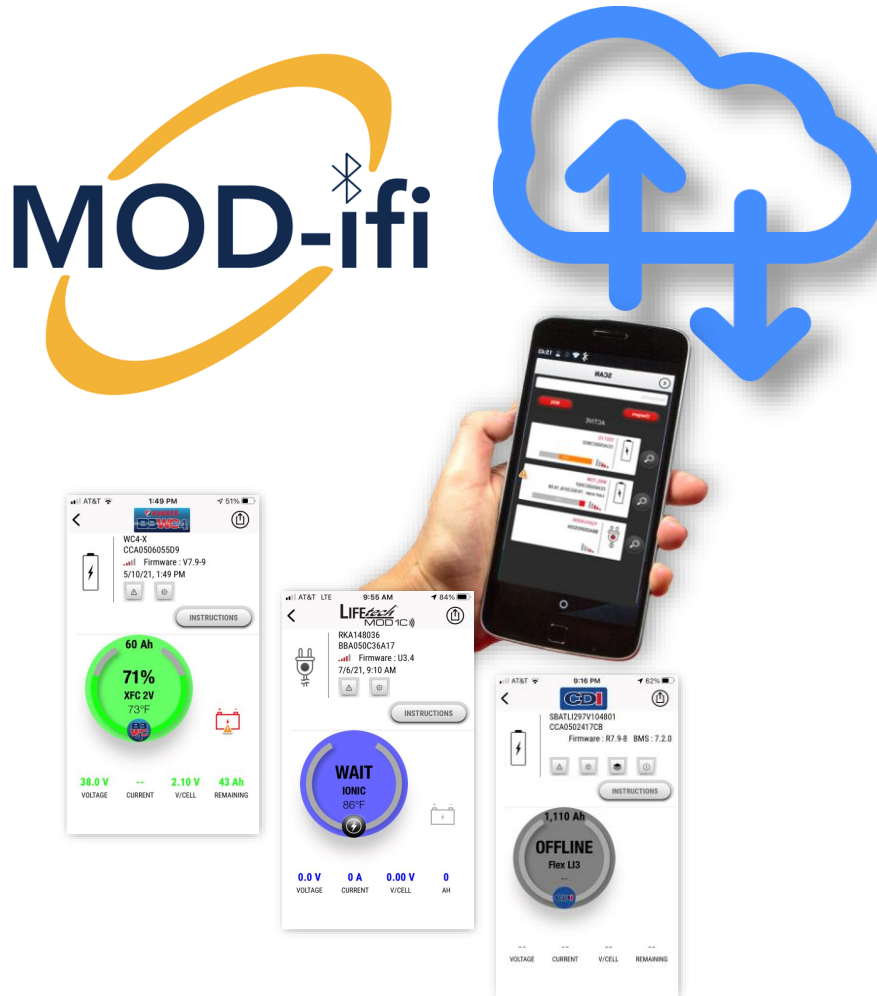



HAWKER® MOD-IFI™ APP USER GUIDE

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HAWKER® MOD-ifi™ SMART DEVICE APP Application Manual



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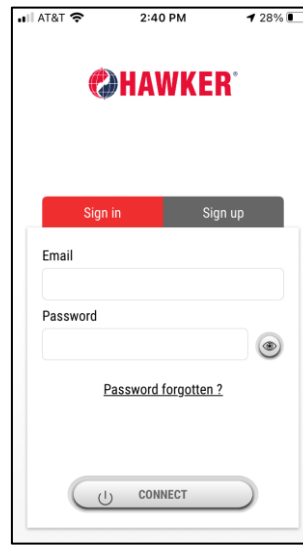
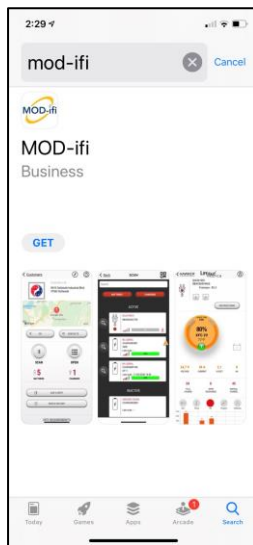
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1. INSTALL & ACTIVATION

- The free HAWKER® MOD-ifi™ Smart Device APP is available in both the iOS (Apple) APP Store and Google Play, the Android APP store.
- It is intended for Smartphone and tablet use. There is no PC version.
- To download, SEARCH the name “MOD-ifi”.
 - *There may be some very slight differences in screens between iOS (iPhone) and Google Play (Android).***Always ensure you are using the latest APP version. It is recommended to check for APP updates whenever possible.**
- To activate, the APP requires a code supplied by HAWKER®. You only need to activate once per install.
- If you activate using the wrong code, you can reinstall the APP again and reactivate. If you use the same log-in credentials, your data should still be visible as data is stored in the cloud correlated with your credentials.
- Once activated you are required to enter your email and choice of password (credentials). This identifies you on the cloud and allows you to view your downloads and share your downloads with other registered APP users.



**On Android
SIGN IN = CONNECTION
SIGN UP = CREATION*

- Press **SIGN UP** if you have never used the APP before. You will be asked to enter a valid company email address and password.
- Press **SIGN IN** if you have previously created an account. If you have forgotten your password, press **PASSWORD FORGOTTEN** and you will be prompted for your email address where your password will be sent.
- Data is stored on a Cloud server. NO data is stored on the smart device.
- While the APP can be opened and devices scanned **OFFLINE**, connection to the Internet allows users to access all features. If the smart device is not connected to the Internet during scan, transfer of data to the remote server will be done as soon as the Internet connection is restored.



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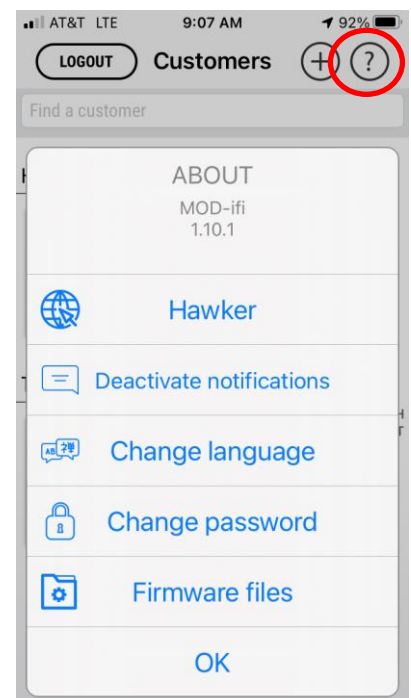
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- This App can be used with the following motive power products:
 - **LifeTech™ MOD1C - Modular Charger**
 - Must have Bluetooth with firmware version 4.0 or later.
 - Allows both download and configuration of charger.
 - **Battery Boss™ WC 4 (BBWC4) – Battery Monitoring Device**
 - Allows both download and configuration of BBWC4.
 - **Bluetooth Enabled (BLE) Sensor**
 - Allows download of data from BLE sensor used with BBWC4.
 - **HAWKER FLEX® Li³ - Lithium CANbus Data Interface (CDI)**
- A quick analysis can be performed directly on a smart device or if files are exported, a deeper analysis is available through the proprietary software, HAWKER® BBWC Reporting Software.
- Once the APP is activated and you are signed in, you will need to create a SITE - “[CUSTOMER]”

TIP: By clicking the “?” button at top of screen, additional items and preferences can be selected.

- **HAWKER®:** This will take you to our website www.hawkerpowersource.com
- **DEACTIVATE NOTIFICATIONS:** Will deactivate push notifications from APP.
- **CHANGE LANGUAGE:** You can change the language of the APP. Currently English, French, German, Czech, Italian, Spanish, Polish, Russian, Mandarin (Chinese), and Turkish are offered.
- **CHANGE PASSWORD:** Allows you to change your password.
- **FIRMWARE FILES:** Cloud server holds current firmware files for use on devices. This shows what versions are available. Please consult with your HAWKER® Dealer for more information on this function. This feature is only available to HAWKER® personnel and representatives.





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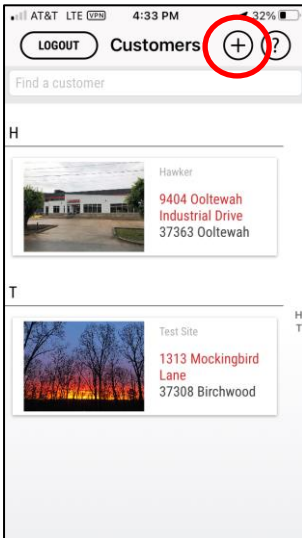
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2. SITE CREATION

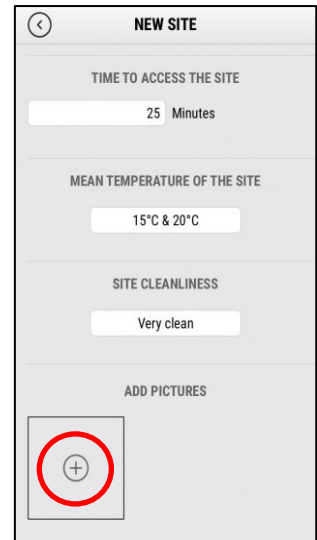
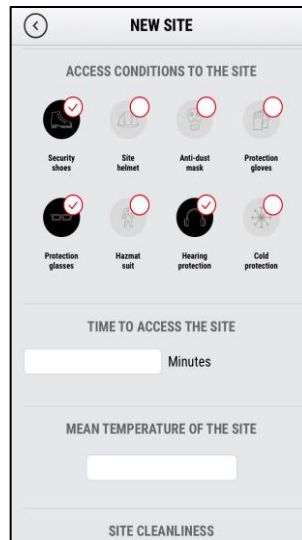
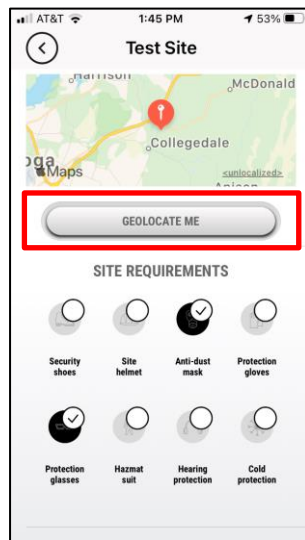
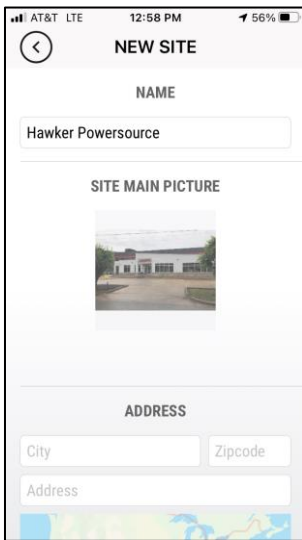
- Once the APP is activated and you are signed in, you will need to create a SITE.



- CREATE NEW SITE** by clicking the **+** button at top of the screen.
- ENTER SITE NAME:** Add picture if desired.
- ENTER ADDRESS:** Can use the GEOLOCATE button for auto address entry. Must physically be on site and connected to the internet to use this feature.
- ENTER SITE CONDITIONS:** This is a good database reference for future site visits or when sharing sites with other users.

TIP: Additional pictures of site or products can also be uploaded here for future reference.

Scroll down to bottom of screen and **PRESS SAVE.**






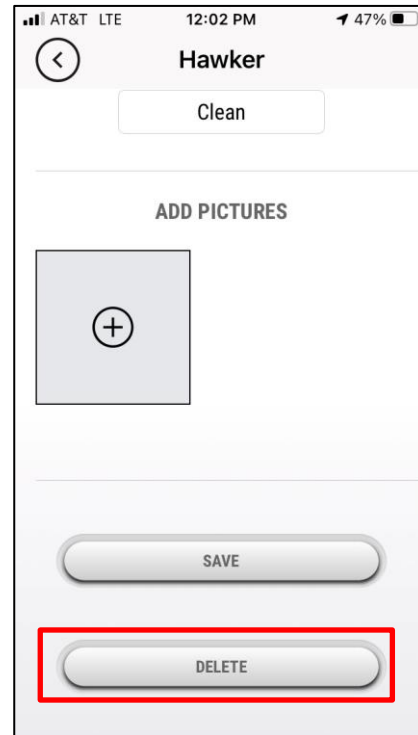
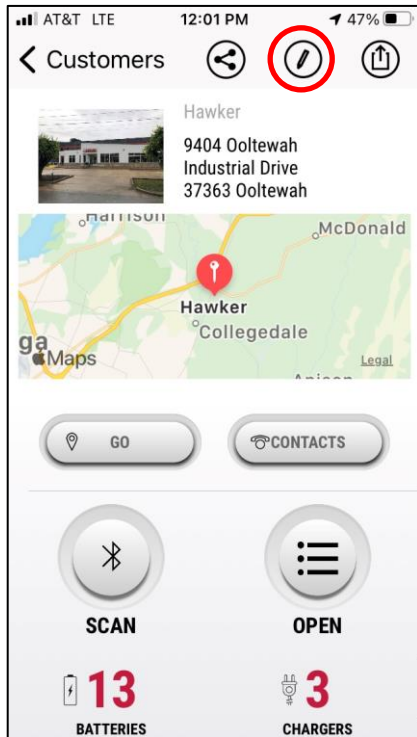
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- **DELETE SITE:** Select the pencil icon  at the top of the screen and scroll to the bottom. Hit the delete button.

WARNING: All information specific to the that site will be deleted and cannot be recovered. If the SITE is shared, then only the owner can delete it.





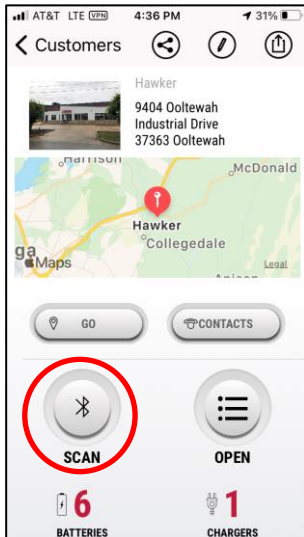
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3. SCANNING



- OPEN SITE, Press **SCAN** button.
- The screen will show each device within range.

If the smartphone is not connected to Internet during scan, the transfer to the remote server will be done as soon as the Internet connection is restored and data updated.

*If you are off site AND connected to the Internet, you can still access your previous scans from the cloud by pressing **OPEN**, however this will only show the last data uploaded to cloud from the last connection to the device. Remember, no data is stored on the smart device. **Data is only visible with an Internet connection.***

- The **GO** button will use maps to provide directions to the SITE address.
- The **CONTACTS** button will open your personal database where you can store contacts for SITE.

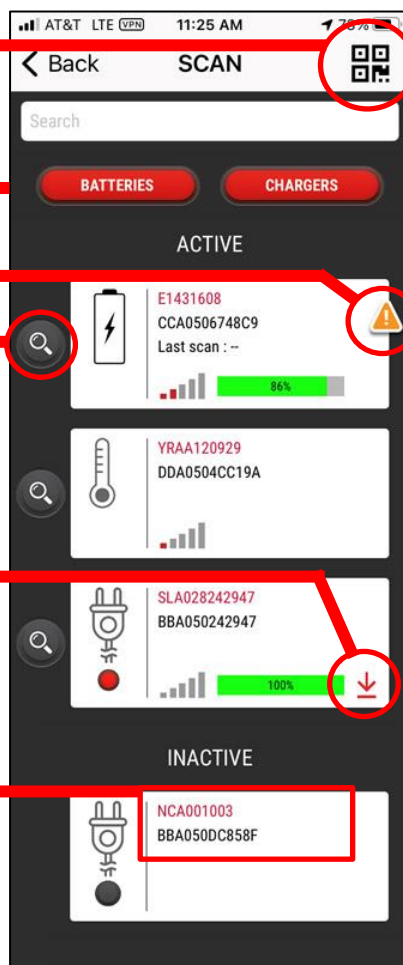
For direct access to battery/charger, press to open camera and scan the QR code on the device.

RED buttons filter devices displayed.

Magnifying glass icon will "page" device. This device currently shows WARNING.

An arrow indicates there is new data to download.

Red text is the serial #. Black text is the Media Access Control (MAC) address.



Connected devices will be shown as **ACTIVE**. Those that are not connected will be shown as **INACTIVE**.

Device type will be indicated by icon:



CHARGER (LTM1C)

Mobile device is connected (ACTIVE) therefore RED button indicates charger is powered on. If INACTIVE, charger will display as Gray because it's not connected.



BBWC4

The original BBWC is not BLE enabled and will not scan.



BlueTooth Enabled (BLE) REMOTE SENSOR

TO OPEN PRESS DEVICE NAME.



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4. DATA ANALYSIS

- Pressing each device on screen (within range) will bring up individual device detail.
- The BRAND at the top of each page indicates product type.

4.1. BLUETOOTH (BLE) EQUIPPED HAWKER® LifeTech™ MOD1C CHARGER

WARNINGS BUTTON

See Configure Device section.

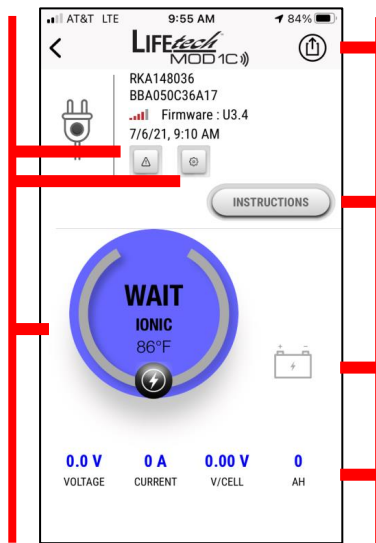
SETTINGS BUTTON

See Configure Device section.

LIVE DATA

SOC, Tech, Temperature.

If Offline - will show OFFLINE Notice button at bottom. If connected to device, can turn charger ON/OFF.



SHARE – See Share section.

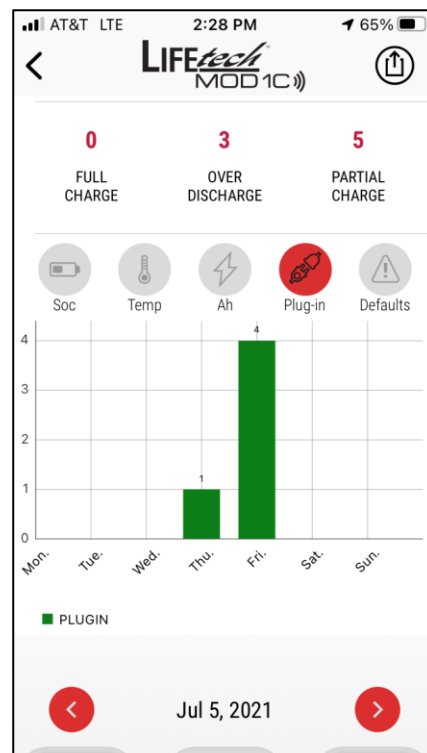
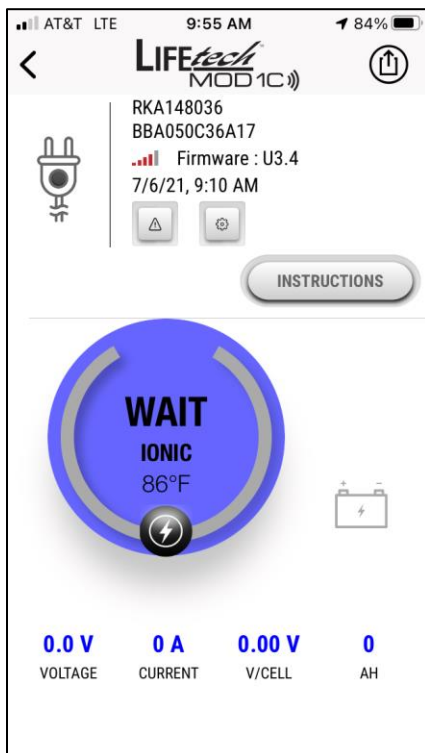
INSTRUCTIONS – Opens the HAWKER® MOD-ifi™ smart device APP Manual.

WARNINGS INDICATOR – Will only show when device is connected, otherwise you can see warnings history from Warnings button above.

LIVE DATA – If Offline will be blank.

Scroll down to see relevant data.

If you cannot see any data, try the filter buttons (YEARS, WEEKS, DAYS).





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4.2. BATTERY BOSS™ WC 4 (BBWC4)

WARNINGS BUTTON

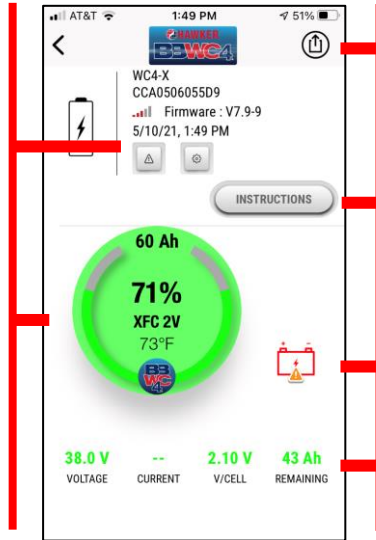
See Configure Device section.

SETTINGS BUTTON

See Configure Device section.

LIVE DATA

SOC, Tech, Temperature
If Offline will show OFFLINE.



SHARE – See Share section.

INSTRUCTIONS – Opens the HAWKER® MOD-ifi™ smart device APP Manual.

WARNINGS INDICATOR – Will only show when device is connected, otherwise you can see warnings history from Warnings button above.

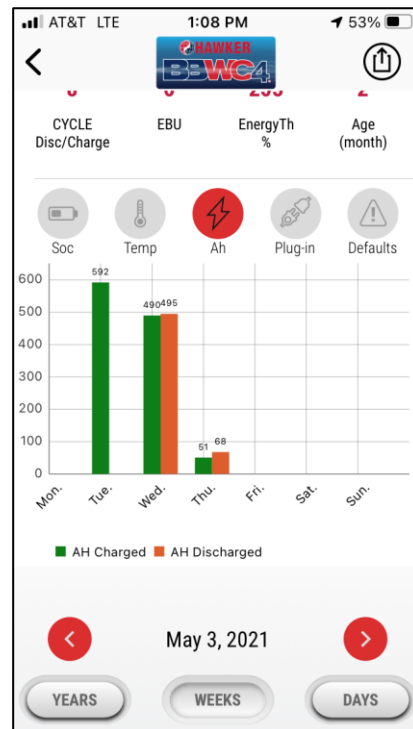
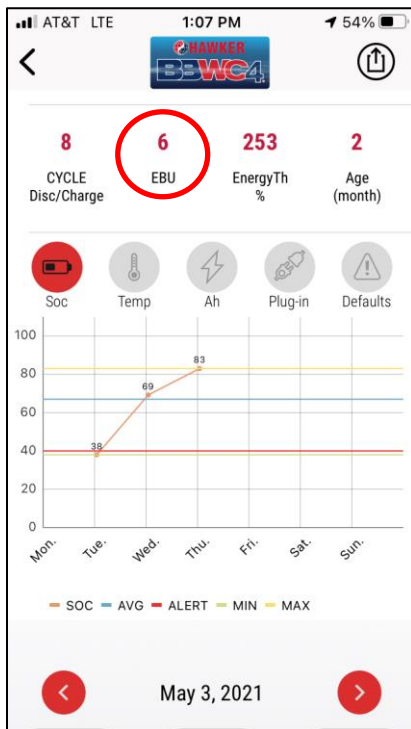
LIVE DATA – If Offline will be blank.

Scroll down to see relevant data.

If you cannot see any data, try the filter buttons (YEARS, WEEKS, DAYS).

NOTE: EBU = Equivalent Battery Unit is defined by the number of cycles at 80% DOD.

Example- if you discharged 160Ah and the battery is 100Ah, the EBU is = 2 (=160/ (80%x100)).





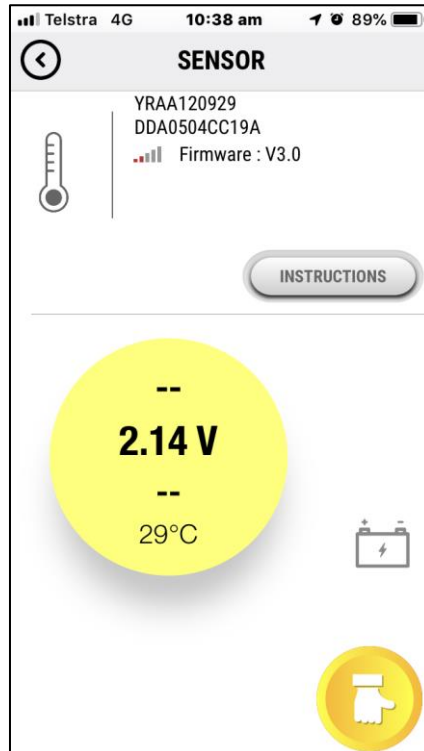
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4.3. BLUETOOTH ENABLED (BLE) SENSOR

- The Bluetooth sensor (BLE) is an option with the BBWC4 and measures temperature, electrolyte level and is used in calculating Balance.
- It is available in both Wet and VRLA options.
- To work with the BBWC4, it will need to be paired with the device.
- The sensor can be used on its own if desired, as a low cost “Blinky” without the need of a BBWC4.





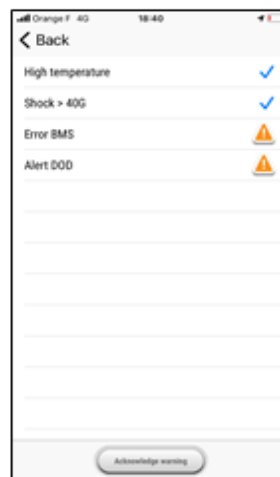
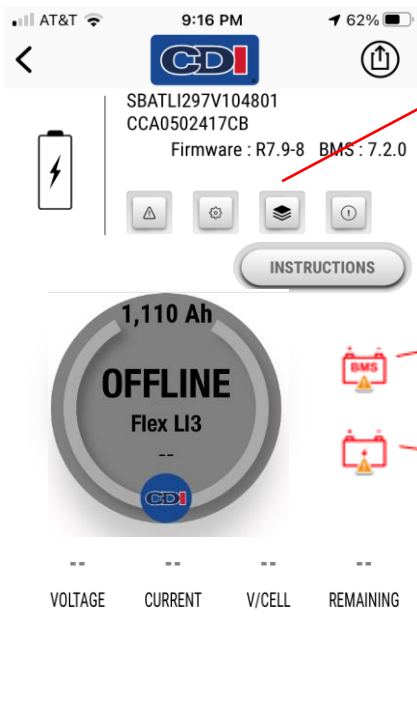
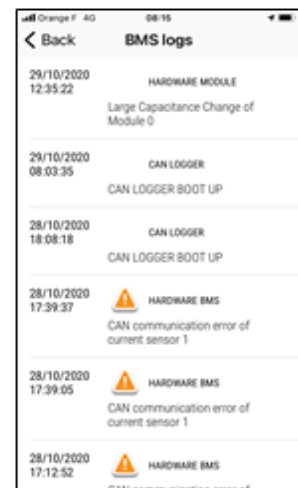
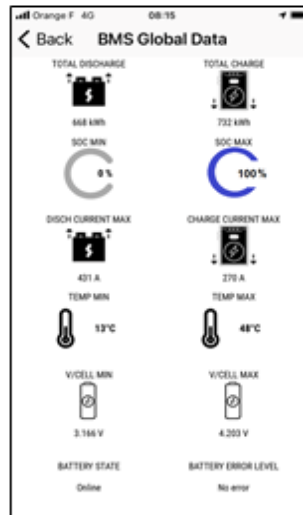
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4.4. HAWKER FLEX® Li³ LITHIUM & CAN DATA INTERFACE (CDI)

- The HAWKER® MOD-ifi™ Smart Device APP will also communicate to our Lithium Motive Power products via the CAN Data Interface device (CDI). This device is installed on EVERY Lithium battery regardless if the battery is integrated to truck CAN or not.





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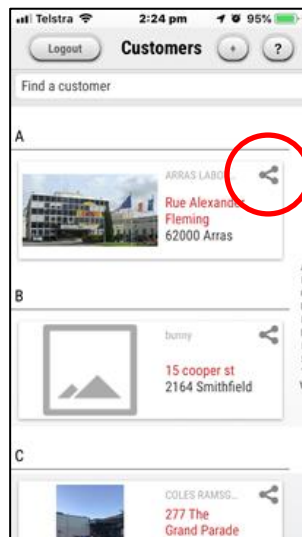
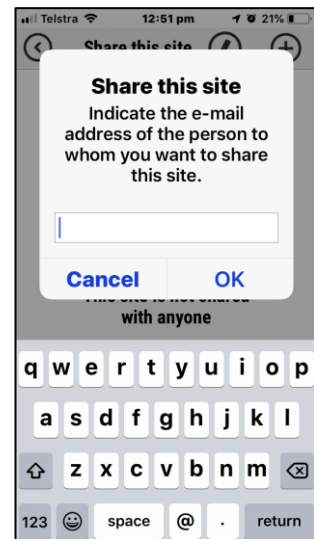
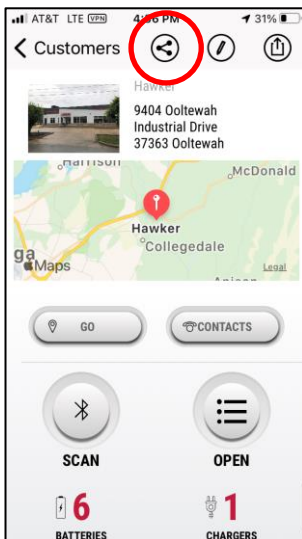
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5. SHARING SITES / DATA

- On each SITE you can share the complete site with other users who are registered on the HAWKER® MOD-ifi™ Smart Device APP. Information can only be shared with registered APP users. It cannot be shared with people outside of the APP.
- Navigate to SITE, then press the SHARE button at top of screen.
- Select + . You will be prompted for an email address.
- This SITE will then be shown in the OTHER USERS SITE list with an included Share icon, indicating it has been shared.
- All other details regarding Data Analysis is same as section 4 above.

NOTE: the person receiving the Shared SITE CANNOT re-share that site with other users.





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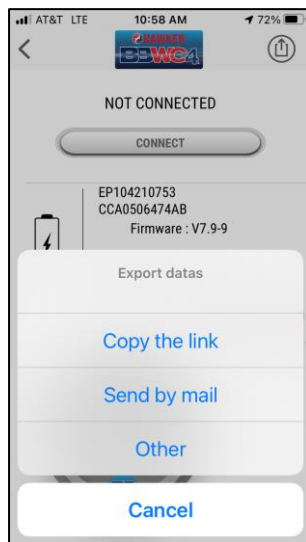
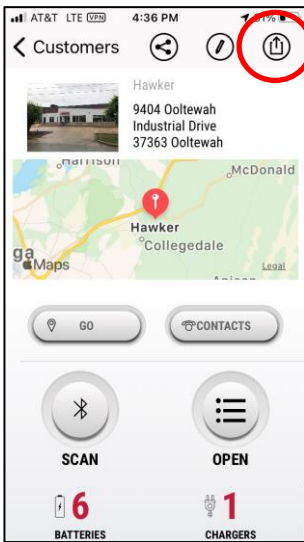


6. EXPORTING DATA

You can export both SITE and INDIVIDUAL DEVICE data. These are two separate processes.

6.1. EXPORT SITE

- On EACH SITE page there is an EXPORT button in the top right corner.
- Press this to EXPORT data. You should see notification to export. Choose your preferred method:

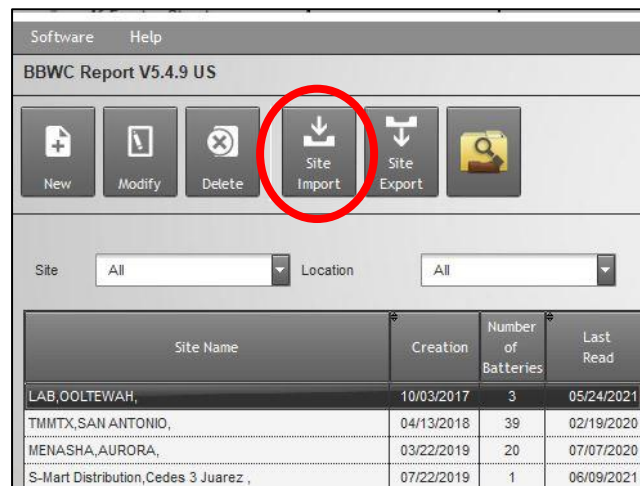
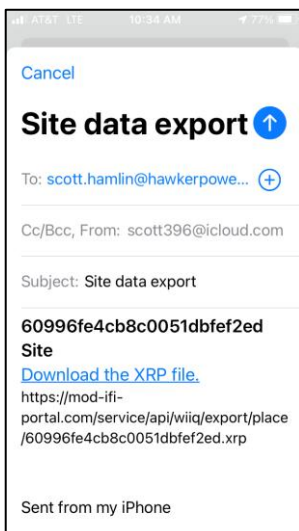


Copy link: Paste into a browser. (Most compatible with Google Chrome.)

Send by email: Will send an email to the email address used when registering for the APP.

Other: Link is sent via options on your smart device (SMS text, etc).

File type is **XRP**. Use **BBWC Report** to **IMPORT** data.



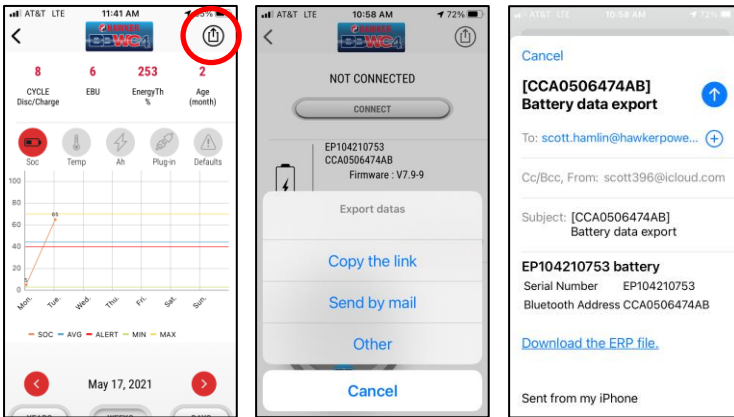
6.2. EXPORT DEVICE SCANS

- Each individual device data can be exported by pressing the EXPORT button at the top of the screen. Then choose the preferred method of distribution.
- The type of file that is retrieved depends on device type.

6.2.1. BBWC EXPORT

HAWKER® MOD-ifi™ Smart Device APP can export an ERP file, which can be imported into the HAWKER® Power Report Software™.

- **NOTE:** ERP files will contain data as per BBWC programming
 - If programmed in **EVENT** - BBWC Report will show **EVENT** data
 - If programmed in **CYCLE**- BBWC Report will show **CYCLE** data.



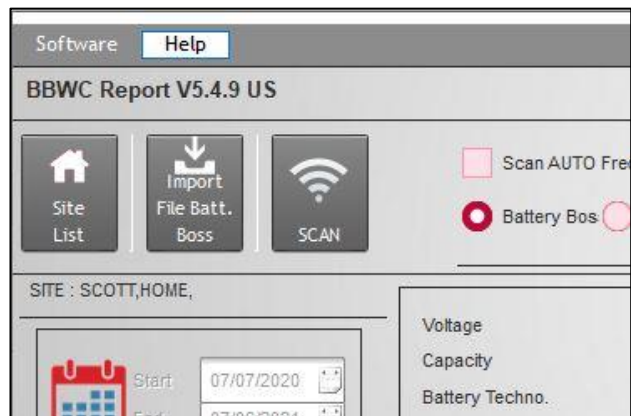
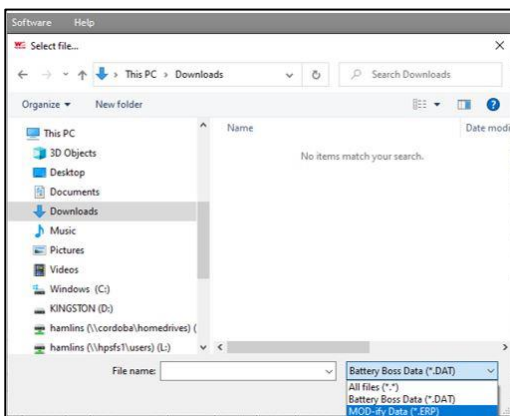
Copy link: Paste into a browser. (Most compatible with Google Chrome.)

Send by email: Will send an email to the email address used when registering for the APP.

Other: Link is sent via options on your smart device (SMS text, etc).

To IMPORT ERP file using HAWKER® Power Report Software™:

- Make a new SITE or open an existing site.
- Use **IMPORT BBWC FILE** button.
- Navigate to saved file on PC and import.
NOTE: Do not use SITE Import.





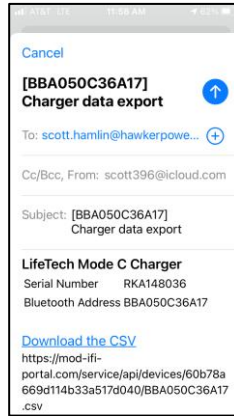
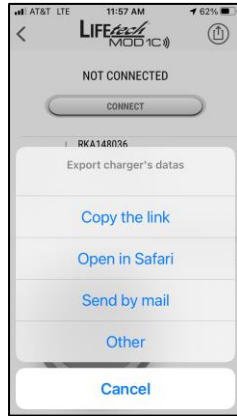
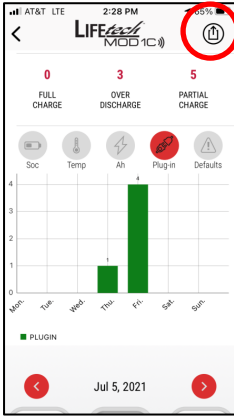
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6.2.2. BLUETOOTH ENABLED HAWKER® LifeTech™ MOD1C CHARGER

Clicking the icon below will export a CSV file that can be imported into Memo Report software.



Copy link: Paste into any browser (Most compatible with Google Chrome).

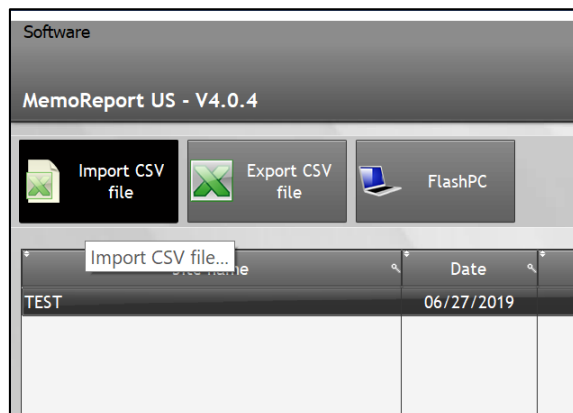
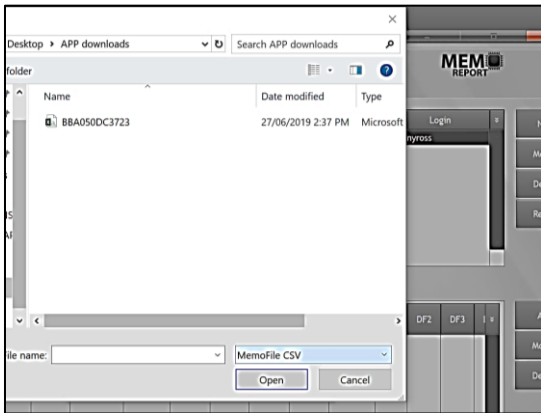
Open in Safari: Will open CSV file within Safari browser (iPhone Only). Androids will open in Preferred Browser.

Send by email: Will send an email to the email address used when registering for the APP.

Other: Link is sent via options on your smart device (SMS text, etc).

To IMPORT CSV File using the Memo Report Software:

- Make a new SITE or open existing site.
- Navigate to file on your PC.
- Click **IMPORT CSV FILE** button.





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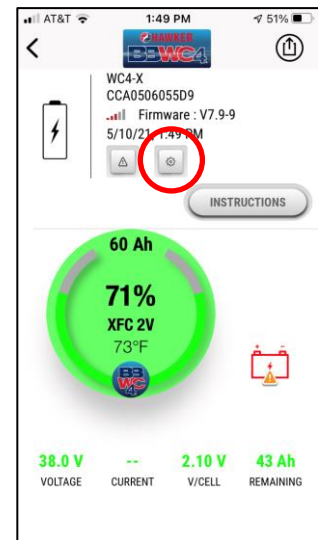
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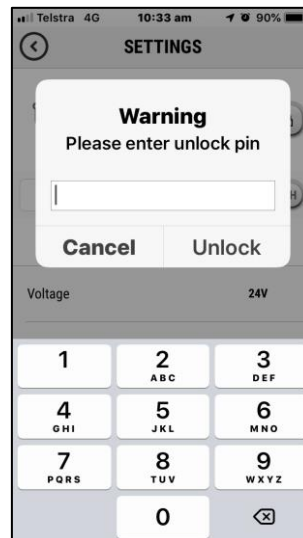
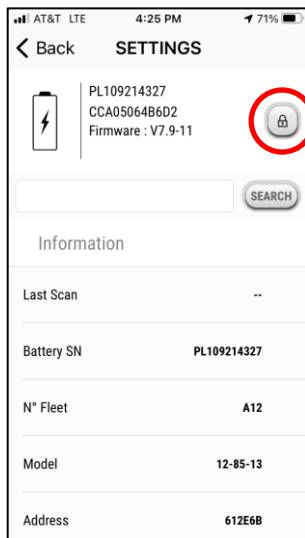
7. CONFIGURE DEVICE (Settings)

HAWKER® MOD-ifi™ Smart Device APP can read and write settings of a device.

- The SETTING button is located on each device home page. Settings shown will depend on which device is connected, however the process is essentially the same for all.
- Select the device to show SETTINGS page.
- Settings will be similar to this screen regardless of if you are connected or not. However, if you are NOT CONNECTED to the device the settings shown will be those from last scan. Any changes that may have been done since then will not be reflected.
- If CONNECTED TO DEVICE, you will be able to EDIT settings in real time. Changes made this way are immediate on the device.
- Once you are in SETTINGS, press the UNLOCK button. (padlock icon in red circle below)
- You will be asked for a password. **Password is supplied by HAWKER®.** Contact Scott.Hamlin@hawkerpowersource.com.



NOTE: This function is reserved for HAWKER® personnel and authorized HAWKER® Dealers. You should always consult the relevant product technical documents to understand the settings and the impact settings may have on device operation.





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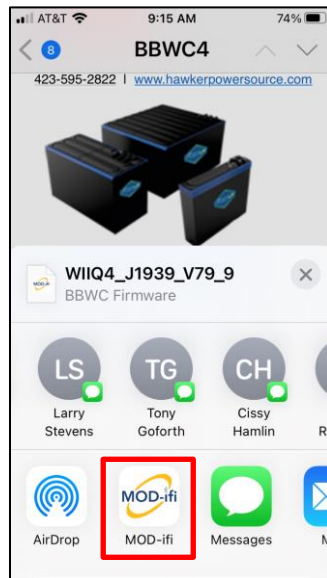
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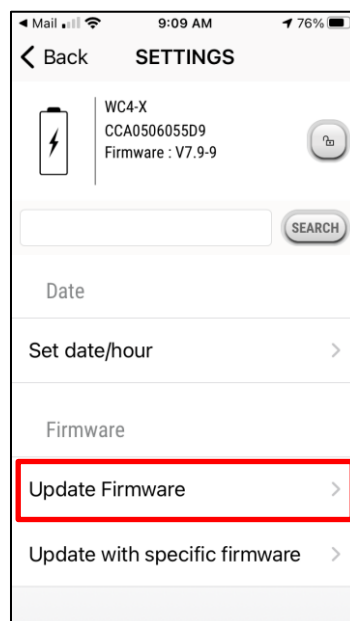
8. LOADING FIRMWARE IN BBWC4


HAWKER® MOD-ifi™ Smart Device APP can load new firmware into a HAWKER® BBWC4. If new BBWC firmware is released, you will need to email it to your phone first.

- Open the email and click on the attachment. You should see a window like the image below (if using an iPhone). Select the HAWKER® MOD-ifi™ APP icon.



- HAWKER® MOD-ifi™ will launch. Select the SITE and select the battery to update (Must be active). Select the gear icon > lock icon > enter the password provided to you by HAWKER®.
- On the settings screen, scroll to the bottom and select Update Firmware. Update will begin. Once it's complete, you can exit the HAWKER® MOD-ifi™ APP or proceed to another task.




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9. TROUBLESHOOTING & FAQ

- Q) What mobile platforms support the HAWKER® MOD-ifi™ Smart Device APP?**
- A)** Currently the HAWKER® MOD-ifi™ Smart Device APP is available in the iOS (Apple) APP Store and Google Play, the Android APP store. It is not designed for Windows devices.
- Q) What HAWKER® devices will communicate with the HAWKER® MOD-ifi™ Smart Device APP?**
- A)** At present the HAWKER® MOD-ifi™ Smart Device APP will communicate with BBWC4, a Bluetooth enabled modular charger (HAWKER® LifeTech™ MOD1C), the Bluetooth individual BBWC probe sensor and our HAWKER FLEX® Li3 Lithium batteries.
- Q) I have downloaded the APP. What do I do next?**
- A)** You will need to obtain an ACTIVATION code from HAWKER®. You will only need to activate it once. You will then create a log-in using your choice of company email. A password will be auto-generated. This login will identify you on the cloud and to other registered users for data sharing. Your details will not be shared, sold or otherwise to any third parties.
- Q) What happens if I can't get any scans?**
- A)** Make sure you have latest version of the HAWKER® MOD-ifi™ Smart Device APP.
- Make sure you have Bluetooth turned on in your smart device.
 - Make sure you do NOT have Bluetooth connection to any other devices while using the APP- like ear pods, car connection, speakers.
 - Make sure "Locations" is turned ON. Not only main "Locations" but also Bluetooth "Locations".
 - On iPhone, go to Settings > Privacy > Location = ON, then scroll down to Bluetooth, then scroll to the HAWKER® MOD-ifi™ Smart Device APP and make sure it's turned ON.
 - Make sure you are an appropriate distance for Bluetooth to work.
 - Make sure BBWC / Charger is receiving powered.
 - Do not make or receive any phone calls during download or it will break the connection. This will also crash a firmware upload and you will have to start over.
- Q) Do I have to be connected to the Internet to use the HAWKER® MOD-ifi™ Smart Device APP?**
- A)** No. You can scan BBWC and Charger devices without internet. Internet is only required to use Bluetooth. However, the data will NOT be uploaded to cloud until you are connected to the Internet.
- Q) What is the process for the data to transfer to the Cloud?**
- A)** Once you are connected to the BBWC or Charger via Bluetooth, the new data is downloaded to your smart device. If you have scanned this unit before, the APP will only download the most recent events since last scan (new data). The new data will stay on your smart device until you have adequate Internet connection. Once you have adequate Internet connection, the new data will be transferred to the Cloud where it is combined with previous data so both old and new can be viewed combined. Files like .xrp/.csv files are generated from the cloud, not from your smart device.
- Q) How much data storage space is required on my device to conduct proper APP operation?**
- A)** Overall BBWC memory is 1MB, if your phone is 16GB, you can in theory store 16k BBWC devices. However new data is only stored on the smart device until you have an Internet connection. Once you have an Internet connection the new data is transferred to the cloud and therefore MINIMAL data will remain on your smart device.

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Q) How long will a tech need to be connected to a specific device to download?

A) The time to download a device will depend on the number of events/cycles within the device. In most cases, it will be the same as what you experience with a current Zigbee Dongle and laptop.

Q) When using the HAWKER® MOD-ifi™ Smart Device APP, will I see my SITE data history without an internet connection?

A) You can open the HAWKER® MOD-ifi™ Smart Device APP and see your SITES and number of devices, however the APP will NOT show you any data until you can access the cloud via an Internet connection. The APP will indicate if you are OFFLINE, except when you are “connected” to a device via Bluetooth where you will see data, however once out of range and with no Internet connection, you will not see any data.

Q) Why can't I see the data in my scans?

A) HAWKER® MOD-ifi™ Smart Device APP requires an Internet connection to show the data from your scans. Without a connection to the cloud, no data will be visible. The APP will indicate if you are OFFLINE, except when you are “connected” to a device via Bluetooth where you will see data, however once out of range and with no Internet connection, you will not see any data.

Q) When using the firmware update feature, how long will it take to update firmware in a device?

A) In most cases, it should take no longer than 2 minutes.

Q) What happens if there is any interruption between the APP and device during a firmware update? Will the device be unusable (bricked)?

A) If the reflash fails, you can try again. Most of the time you will have to fully close out the app and relaunch. The device should be OK. If a call comes in on your device during the upload, it will break the connection and you will have to restart.



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AM-HMOD-OM Rev AA October 2021

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