
iOS Engineer App

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1 iOS Engineer App User Guide

1.1 Introduction

A brief introduction and background to the Mardix Engineer App.

iControl Engineer (otherwise known as the Engineer App) is an application for the iPhone and iPad, providing access to the complete Mardix iControl database of equipment, locations, documentation and site visit reports.

The application allows site visit reports to be created and modified on-site, including service documents. In addition, details of equipment item can be updated or tagged, and electronic test certificates can be completed.

The application can be used on either iPhones or iPads, although with the introduction of electronic documentation it is recommended that wherever possible iPads should be used.

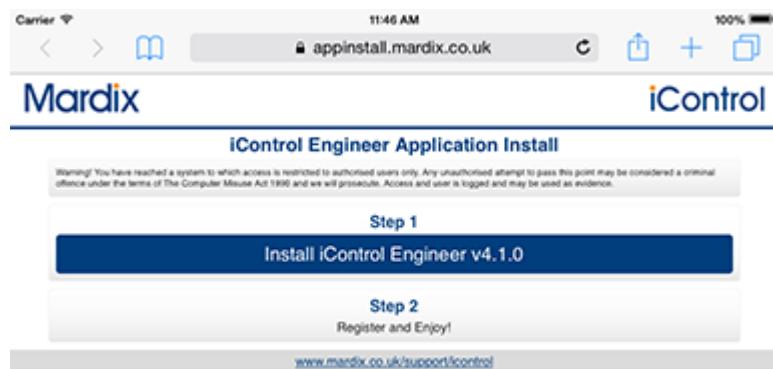
1.2 Installation

This section describes how to install the Engineer App on a device for the first time.



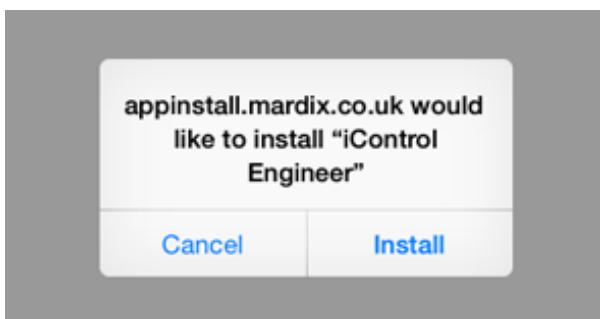
The steps detailed below are used for both first time installation and subsequent updates. If you are **updating** the app, unless otherwise stated you must ensure all data is **fully synced up**, as otherwise you may lose any unsynced data.

To install the application on your device, open up the web browser on your device (this is normally Safari), and navigate to <https://appinstall.mardix.co.uk/engineer>

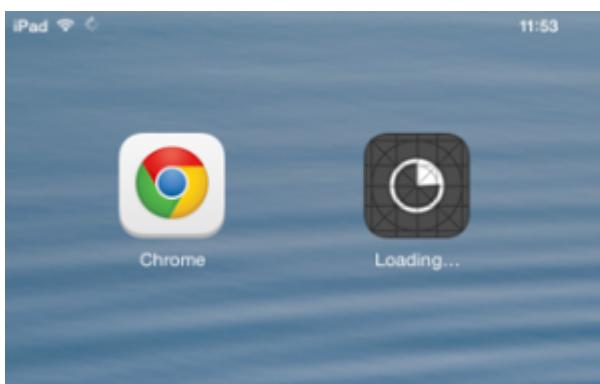


On the page that appears, tap on **Install iControl Engineer**.

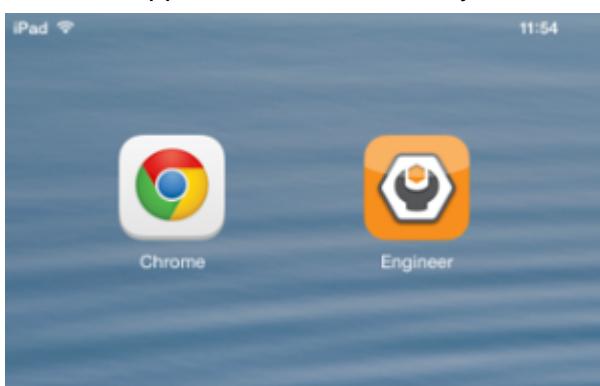
You will then be asked if you want to install the application; select **Install**.



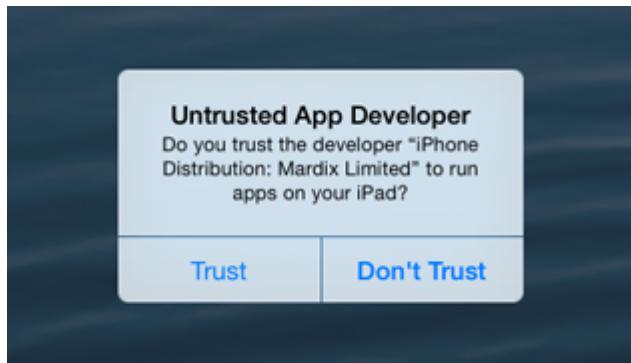
If you now minimise Safari, you should see the application beginning to install on the desktop.



Once the application has installed, you will see the Engineer icon displayed.



When launching for the first time, you may receive an **Untrusted App Developer** warning; if this happens, select **Trust**.



You do not need to keep a note of the installation URL, as once installed you can easily find the installation web page [from within the app itself](#).

1.3 Registration and Logging In

This section describes how to register your username on the Engineer App, and how to log in if you have previously registered.



Before launching the application, it is recommended that you close any other applications or processes that you are not currently using; this is to reduce the risk of the application crashing in the event of the device running low on memory.

Upon launching the app, the first screen you will see is the Users screen. This lists all users currently registered on the app. The first time you launch the app, no users will be listed.

From this screen you can log in (if you have previously registered), or register as a new user.

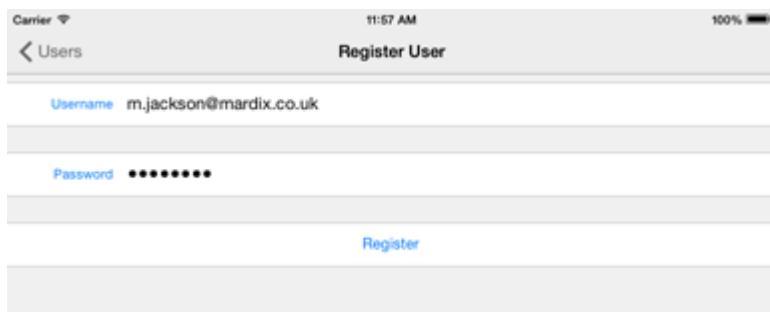
1.3.1 Registering as a New User

To register, tap on **Register New User**. Note that you will need to be in wi-fi range to successfully complete registration.



Enter your Vision username and password; you should be supplied with this in advance, and your username is usually your email address, but if in any doubt contact the Mardix software support team.

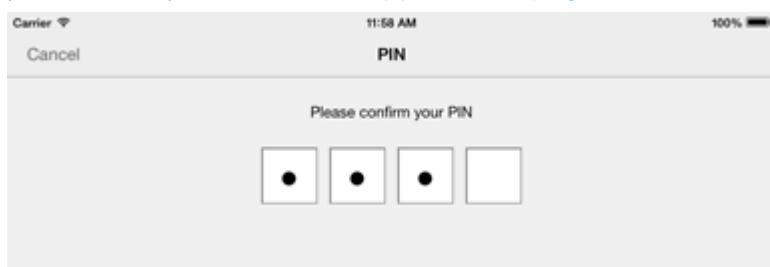
Tap on **Register** to submit your details; at this point you should see a small spinning icon while the app attempts to contact the Mardix Vision server.



If your username and password have been accepted, you will now be prompted to enter a four-digit PIN. This PIN is a number allowing you to securely log in once you have registered. It is entirely up to you what PIN number you choose, although it is a good idea to select one that you will easily remember.



You will then be asked to confirm your PIN, after which the registration process is complete and you will find yourself on the app's [Home page](#).



1.3.2 Logging In

Once you have successfully registered your username, whenever you launch the app in future you will see your username listed on the Users screen. To log in, simply tap on your username.

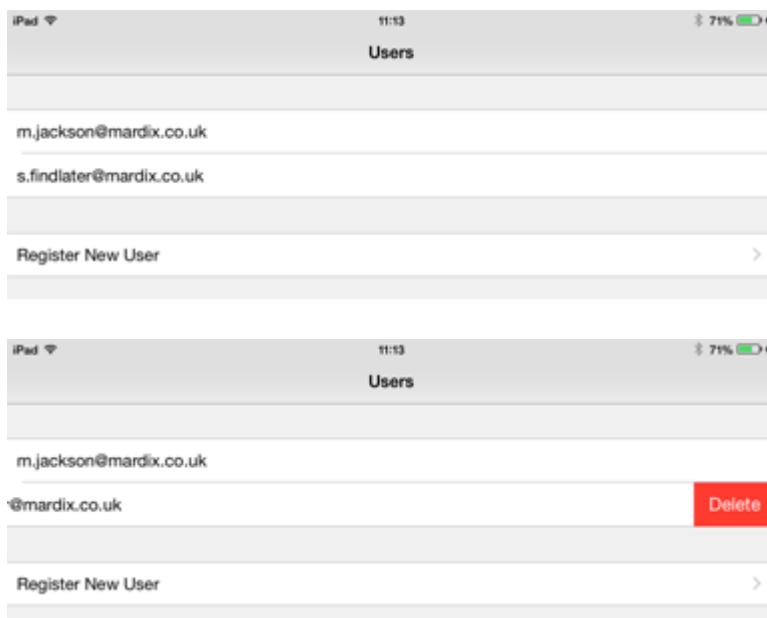


You will then be prompted to enter the PIN number you set up when you registered. You do not need to be in wi-fi range when logging in.



1.3.3 Removing Users

To remove a user from the device, carefully and slowly swipe right-to-left from the right hand side of the user's name cell. This will reveal a hidden **Delete** button that can then be used to remove the user from the device. Users can be added back in again by following the registration steps above.

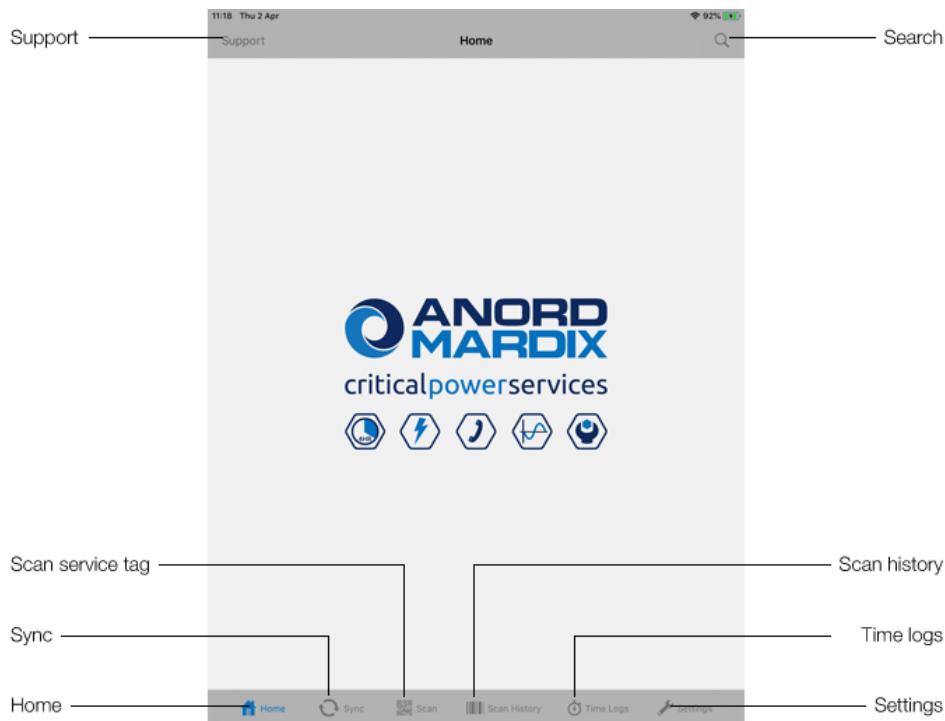


1.4 Navigation

The basics of how to navigate around the Engineer App.

Navigation in the Engineer App is generally performed by using tabs at the bottom of the screen, which always remain the same wherever you are in the app; and by using navigation links at the top of the screen, which tend to change depending on which screen you are currently on.

The first screen you will encounter after registering or logging in is the Home screen, which is shown below. A description of the highlighted navigation controls follows.



1.4.1 Navigation Links

These appear at the top of the screen, and normally allow you to navigate backwards and forwards between related pages. They are almost always specific to the screen you are currently on. The navigation links on the Home screen are as follows.

- **Support** takes you to a screen providing details of how to contact the Mardix software support team
- **Search** allows you to search the app for equipment, branches or site visit reports

1.4.2 Tab Bar Links

The tab bar at the bottom of the screen contains a fixed set of links that remain the same regardless of where you are in the app.

- **Home** takes you back to the Home screen
- **Sync** takes you to the Sync screen, from where you can refresh the app's data or submit any updates you have made
- **Scan** allows you to scan a service tag to bring up details of the associated equipment item
- **Scan History** brings up a history of all recent service tags you have scanned
- **Time Logs** allows you to log time related to site works
- **Settings** takes you to the Settings screen, allowing you to view application information and change some settings



Note that some screens (such as Equipment Details) can be accessed from more than one tab; tapping on a tab will take you to the last screen you were on the last time you were in that tab. In other words, each tab maintains its own 'navigation history' at all times, allowing you to switch between tabs without losing where you were.

If you want to navigate to the main screen for a particular tab (e.g. Home), simply **double-tap** on that tab.

1.5 Sync

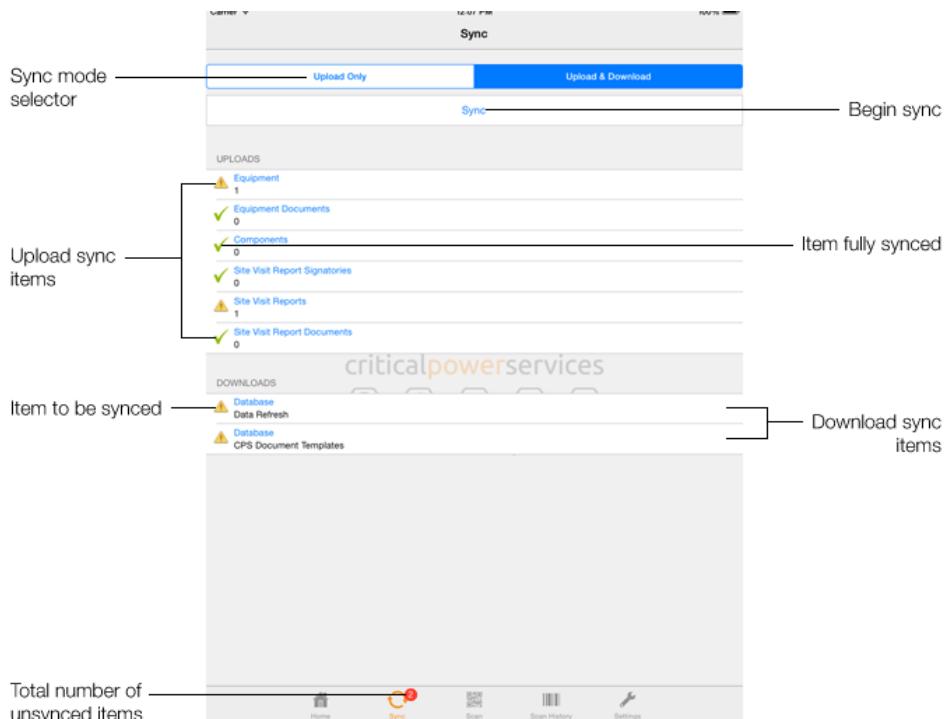
The Sync mechanism is used to keep the app's data up to date with the Mardix Vision server. This section describes the steps for running a sync.

The Sync function is used when you want to send up any changes you have made to the Mardix Vision server, or when you want to refresh the app's data and bring down the latest changes from the server. Any changes you send up are instantly updated on the Vision system.



When you install the application for the first time, the first thing you will need to do is start a full download sync as the local database will be empty to begin with.

iOS Engineer App



All sync items are listed on the Sync screen. These consist of upload items (which are things that you can modify within the app such as equipment and site visit reports), and a download section consisting of a general data refresh and some document templates.

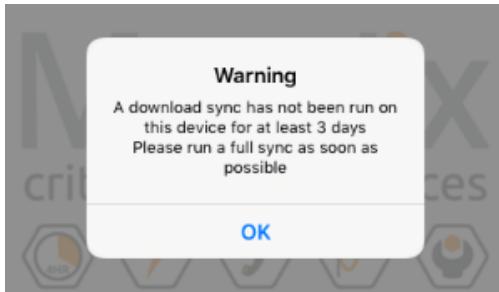
Items that are either fully synced (or do not currently require syncing), display with a green tick; items that are not yet synced are displayed with a yellow triangle. In addition, a red badge on the **Sync** tab icon at the bottom of the screen will display the total number of items waiting to be synced up.

You can select the sync mode at the top of the screen.

- **Upload Only** means you are only wanting to send up changes you have made without refreshing the app's data; this would normally be used if you need to quickly submit some changes
- **Upload & Download** runs a full sync, firstly submitting any changes you have made, before then bringing down a full data refresh from the server; this may take a few minutes to complete, and is usually done at the beginning or end of the day



Although you do not need to run a full download sync every time, it is recommended that you still do this fairly regularly to always ensure the information on the app is as up-to-date as possible. If a full download sync has not been run for some time, a warning will appear at startup.



To begin a sync, simply tap on the **Sync** button. You should see each unsynced item in turn display a spinning icon, before displaying a green tick. The full list of icons displayed during a sync cycle is as follows.

- Item yet to be synced
- Item in the process of syncing
- Item successfully synced, or no sync required
- Item failed to sync

If all has gone OK, every synced item should now display a green tick. If a problem was encountered syncing any of the items, a red cross will be displayed instead; this is most often caused by a drop-out in the wi-fi signal. If this happens, consult the [troubleshooting guide](#).



It is important that you only attempt a sync when you are in range of a good wi-fi signal, as this process can involve sending large amounts of data over an internet connection. Although any items that fail to sync will always be retried on subsequent sync attempts, having a good uninterrupted signal should guarantee the sync succeeds.

If an upload sync item succeeds, you can be certain that the data has been transferred successfully, as the green tick only appears once confirmation has been received from the server that the data transfer has completed.

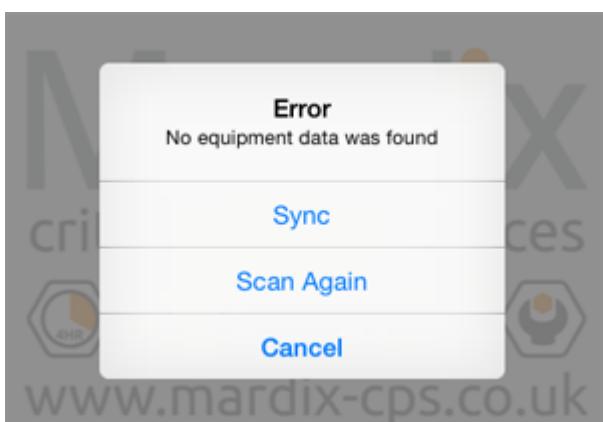
1.6 Scan

The Scan option allows you to bring up the details of a piece of equipment by scanning its service tag, and is the usual method of accessing an equipment item in the Engineer App.

The scanner works just like the device's camera, except that once the device has a service tag QR code within its viewfinder, it will automatically detect it and take you straight to the associated [Equipment Details](#) or [Component Details](#) screen.



In the event that the QR code does not represent a valid piece of Mardix equipment, you will receive an alert and be prompted to either scan again, go to the [Sync](#) screen to get an updated list of equipment, or simply cancel the scan.

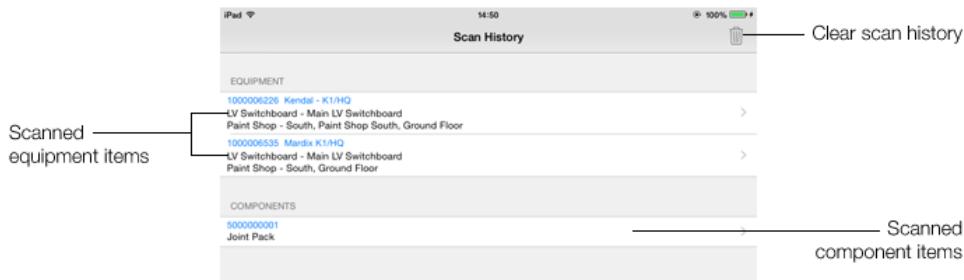


1.6.1 Scan History

The Scan History screen displays a list of all service tag you have scanned since the last full [sync](#). The list is divided into equipment items, and component items which also have service tags (such as IBAR components).

Selecting an item from the list will take you to the relevant [Equipment Details](#) or [Component Details](#) screen.

The trash can icon at the top right of the screen can be used to clear the scan history.

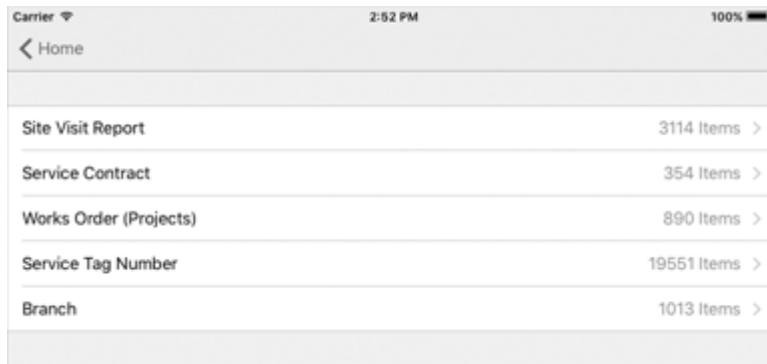


- i Note that when a component item is added to the scan history, its parent equipment item is **not** automatically added.
- i The Scan History is normally cleared following a full download sync; you can however change this behaviour in [Settings](#).

1.7 Search

The Search option allows you to search for equipment, components, branches, site visit reports, works orders and service contracts.

The main Search screen shows the full list of search items available for each category.

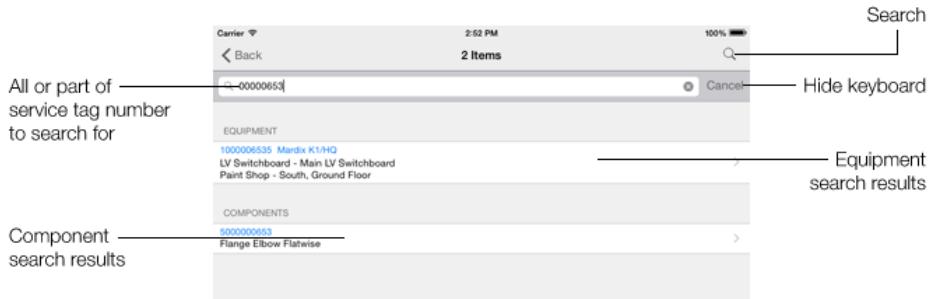


1.7.1 Equipment and Components

To search for either equipment or component items, select **Service Tag Number** from the main Search screen.

Type in all, or some, of the service tag number you want to search for then tap the **search icon**. A list of results matching your search text will appear, separated into equipment and component items. Selecting an item from the list will take you to the relevant [Equipment Details](#) or [Component Details](#) screen.

The **Cancel** button can be used to dismiss the keyboard and see the list of results more easily.

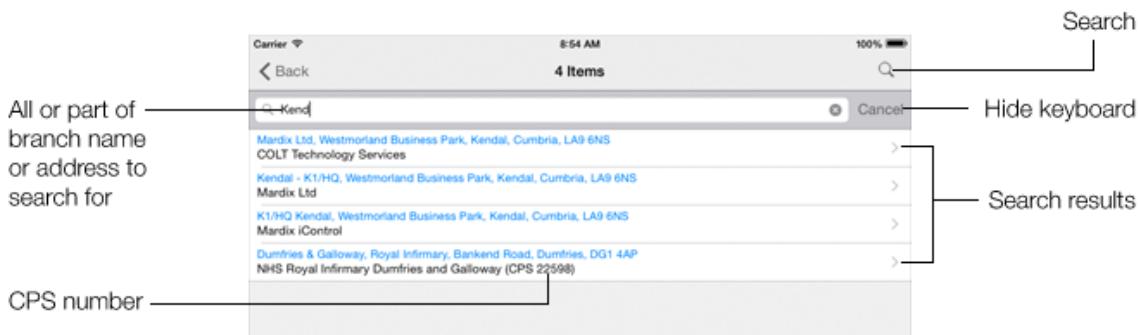


1.7.2 Branches

To search for branches, select **Branch** from the main Search screen.

Type in all, or some, of the company name or branch name or address you want to search for then tap the **search icon**. A list of results matching your search text will appear. Selecting an item from the list will take you to the relevant **Branch Details** screen.

The **Cancel** button can be used to dismiss the keyboard and see the list of results more easily.



1.7.3 Site Visit Reports

To search for site visit reports, select **Site Visit Report** from the main Search screen.

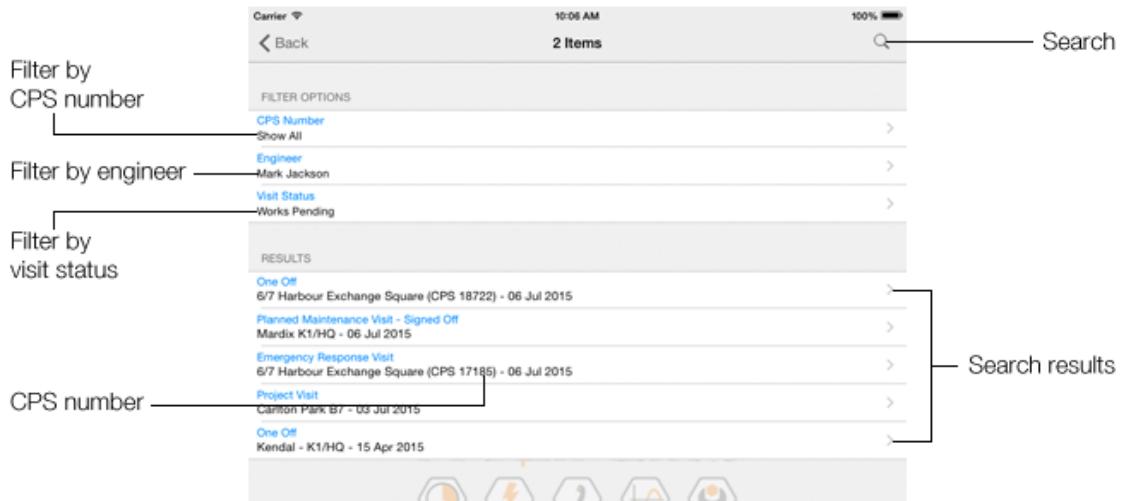
You can search for site visit reports based on their CPS number, engineer and/or visit status.



The filter selection screens preset you with a list of options. These screens also contain a **Clear** button allowing you to clear that particular filter. Note that the engineer selection screen will initially scroll down to your own name in the list.



Once you have made your selection, tap the **search icon**. A list of results matching your search criteria will appear. Selecting an item from the list will take you to the relevant [Site Visit Report](#) screen.



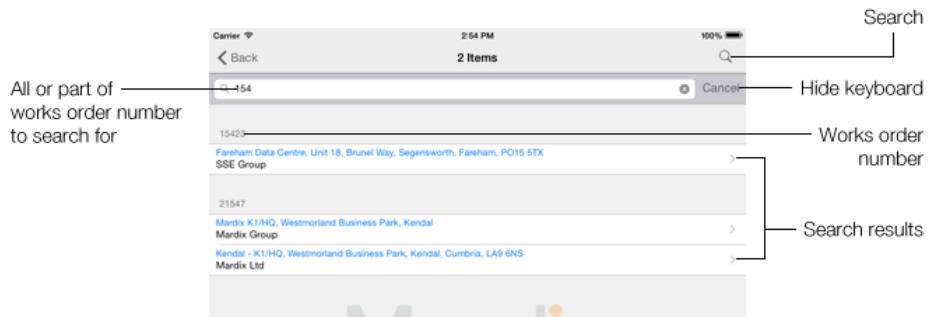
If you do not select a filter before searching, the search results may take some time to load

1.7.4 Works Orders

To search for works orders, select **Works Order** from the main Search screen.

Type in all, or some, of the works order number you want to search for then tap the **search icon**. A list of results matching your search text will appear, consisting of branches grouped by works order. Selecting an item from the list will take you to the relevant [Branch Details](#) screen, with its data filtered to match the relevant works order.

The **Cancel** button can be used to dismiss the keyboard and see the list of results more easily.

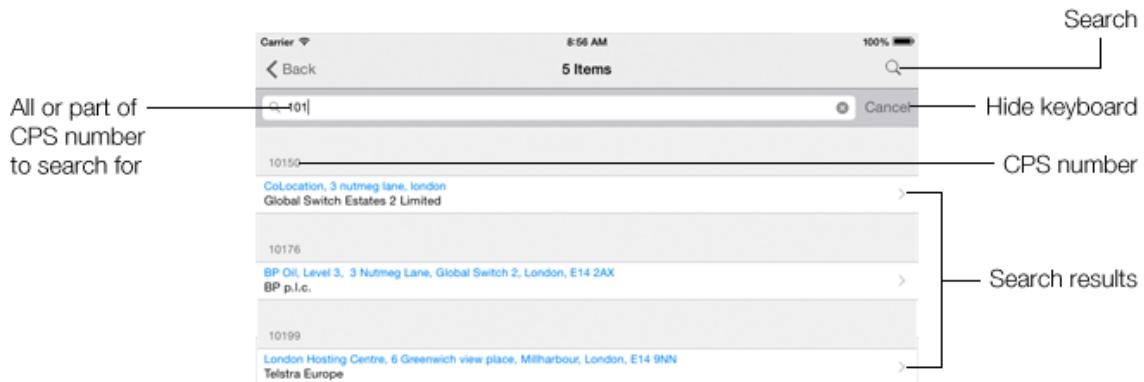


1.7.5 Service Contracts

To search for service contracts, select **Service Contract** from the main Search screen.

Type in all, or some, of the CPS number you want to search for then tap the **search icon**. A list of results matching your search text will appear, consisting of branches grouped by CPS number. Selecting an item from the list will take you to the relevant **Branch Details** screen.

The **Cancel** button can be used to dismiss the keyboard and see the list of results more easily.

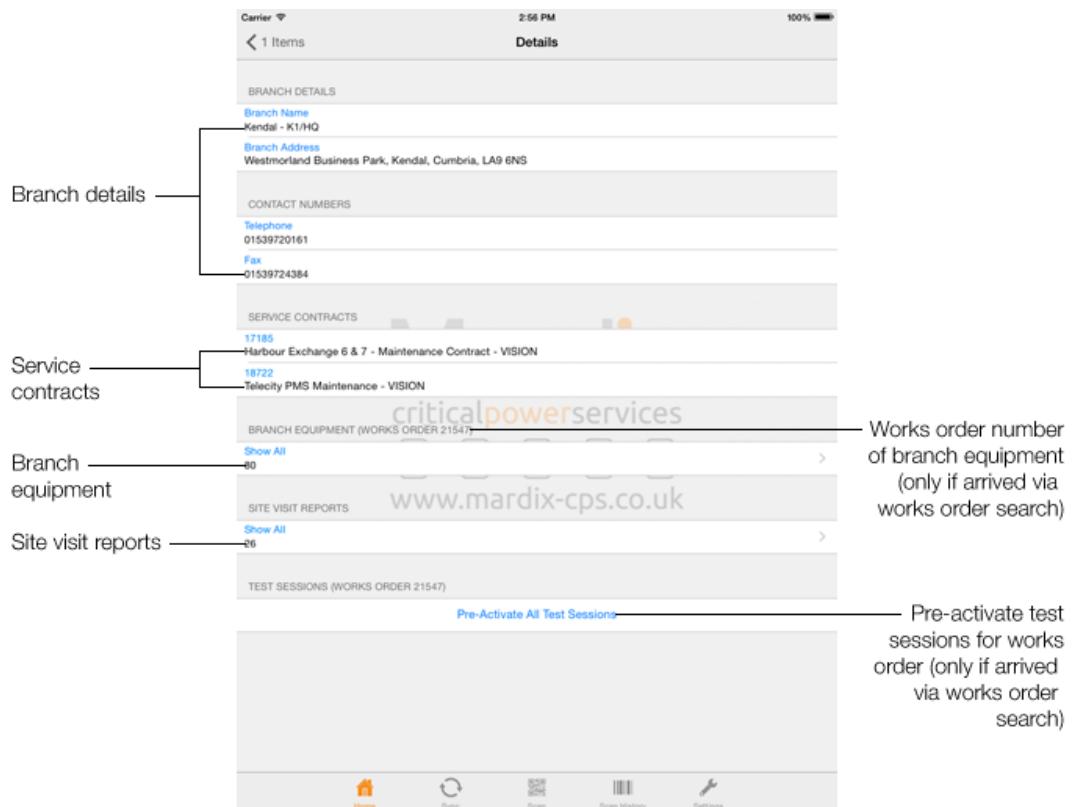


1.8 Branch Details

The Branch Details screen displays information about a branch (such as address and contact details), as well as all equipment and site visit reports relating to the branch.

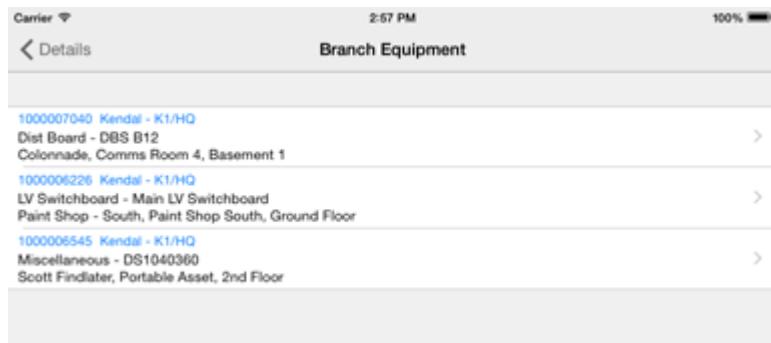
If the screen is reached by using the **branch search**, then all equipment at the branch will be listed.

If however the screen is reached by using the **works order search**, then only equipment at the branch covered by the selected works order will be listed (the works order number is displayed in this instance). Also, if the test documents option has been activated on the **Settings** screen, test sessions for that works order can be **pre-activated** on this screen.



1.8.1 Branch Equipment

Tapping on **Branch Equipment** will bring up a detailed list of the equipment located at the branch. Selecting an item from the list will take you to the relevant [Equipment Details](#) screen.

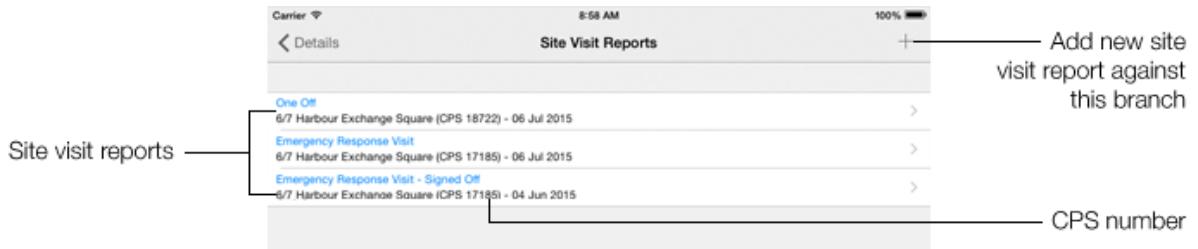


1.8.2 Site Visit Reports

Tapping on **Site Visit Reports** will bring up a detailed list of all site visit reports for the branch. Selecting an item from the list will take you to the relevant [Site Visit Report](#) screen.

To [create a new site visit report](#) against the branch, tap on the + icon at the top right of the screen.

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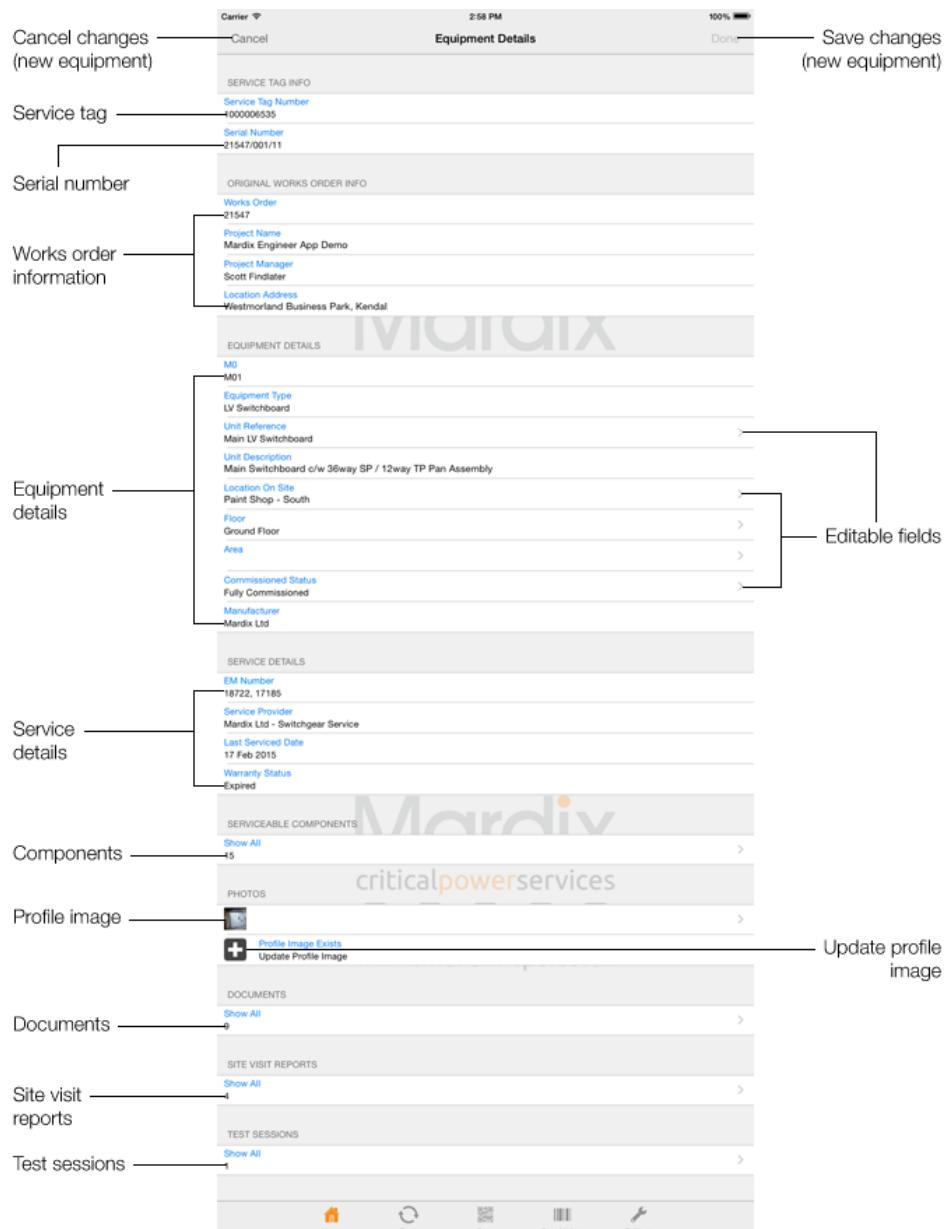
1.9 Equipment Details

The Equipment Details screen displays information about a piece of equipment (such as serial number, location and service details), as well as all components, documents, site visit reports and test sessions relating to the piece of equipment.

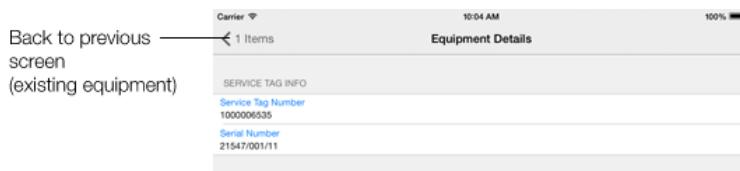
The Equipment Details screen can be reached using any of the following.

- By [scanning](#) a valid service tag
- By [searching for a service tag number](#)
- By selecting an equipment item from the [scan history](#)
- By selecting an equipment item from the [branch equipment](#) on the Branch Details screen

Some equipment details can be modified using the app, then [synced](#) up to the server.

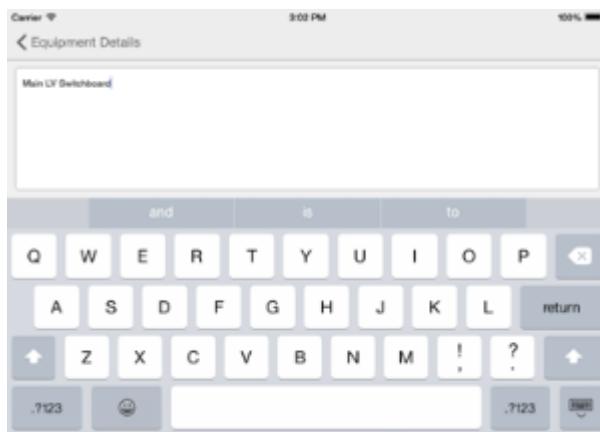


Note that the **Done** and **Cancel** buttons only apply when **tagging new equipment**; if you are editing an existing equipment item your changes are automatically saved as you make them, and the navigation bar is simply used to take you back to the previous screen.

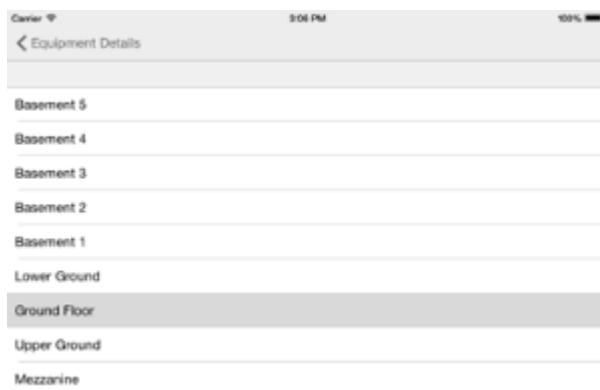


1.9.1 Editing Equipment Items

Text fields such as **Unit Reference** are simply modified by selecting the field then updating the text.

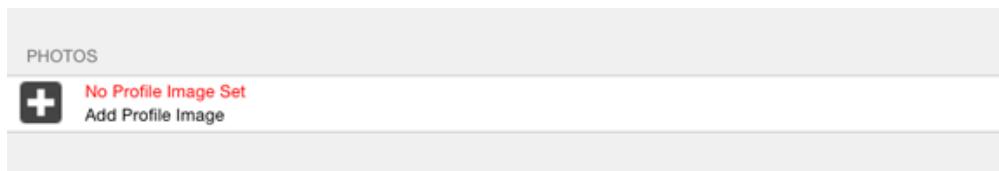


Other field such as **Floor** force you to choose from a list of options. This is to ensure data integrity in the main Vision database.

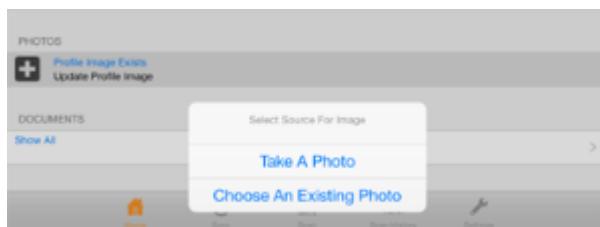


1.9.2 Adding a Profile Image

You can also add, or update, the profile image for the equipment item. If the item currently has no profile image stored on the Mardix Vision server, a red warning will be displayed under **Photos**. However even if it has a profile image, you can still replace this with a new one.



To update the profile image, tap on **Update Profile Image** then select either **Take A Photo** (to use the device's camera to take a new photo) or **Choose An Existing Photo** (to use a photo previously stored on the device's camera roll).



If you select **Take A Photo**, the camera will open within the app and allow you to take a picture. Tap on **Use Photo** to select the photo you have just taken, or **Retake** to take another picture if you are not happy with the one you have taken.



Remember that you must use the **Done** button to commit any changes, including changes to the profile image.

You can delete a profile image that you have added by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.



1.9.3 Components

Components form part of an equipment item, but often have their own service tags, and can also be modified using the Engineer App.

1.9.4 Equipment Documents

Documents associated with an item of equipment can be downloaded, viewed, and distributed using the Engineer App.

1.9.5 Site Visit Reports

Tapping on Site Visit Reports will bring up a detailed list of all site visit reports for the equipment item. Selecting an item from the list will take you to the relevant [Site Visit Report](#) screen.

To [create a new site visit report](#) against the equipment item, tap on the + icon at the top right of the screen.



1.9.6 Test Sessions

Test certificates can be performed electronically against equipment items using the Engineer App.

1.9.7 Tagging a New Equipment Item

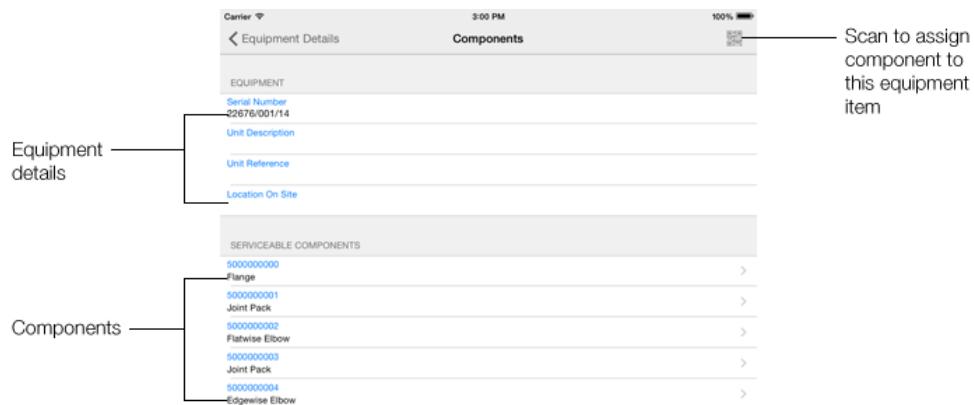
It is possible to tag a new piece of equipment using the Engineer App. This is done [during a site visit report](#).

1.9.8 Components

Components form part of an equipment item, but often have their own service tags, and can also be modified using the Engineer App.

The main Components screen for an equipment item is accessed by selecting **Components** on the [Equipment Details](#) page. It provides a detailed list of all components for the equipment item.

Selecting an item from the list will bring up the Component Details screen.



Assigning Components (Databar Runs)

Tapping the scan icon at the top right of the screen brings up a scan window, allowing you to scan a component's service tag to assign it to the current equipment item. This is most commonly used for Databar installations, where Databar components are scanned to add them to the run (the equipment item).

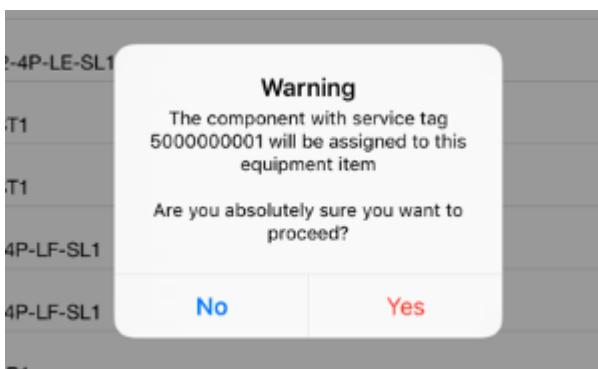
Firstly, scan the equipment (run) service tag to bring up its Equipment Details screen.



Once you have scanned the equipment (run) service tag, tap on **Components** to bring up the Components screen, then tap the scan icon at the top right of the screen. Once the scan window appears, scan the service tag of the component you want to assign to the equipment (run).



You will be asked if you want to move the component. Select **Yes** and the component will now be listed on the Components screen for the current equipment item (run).



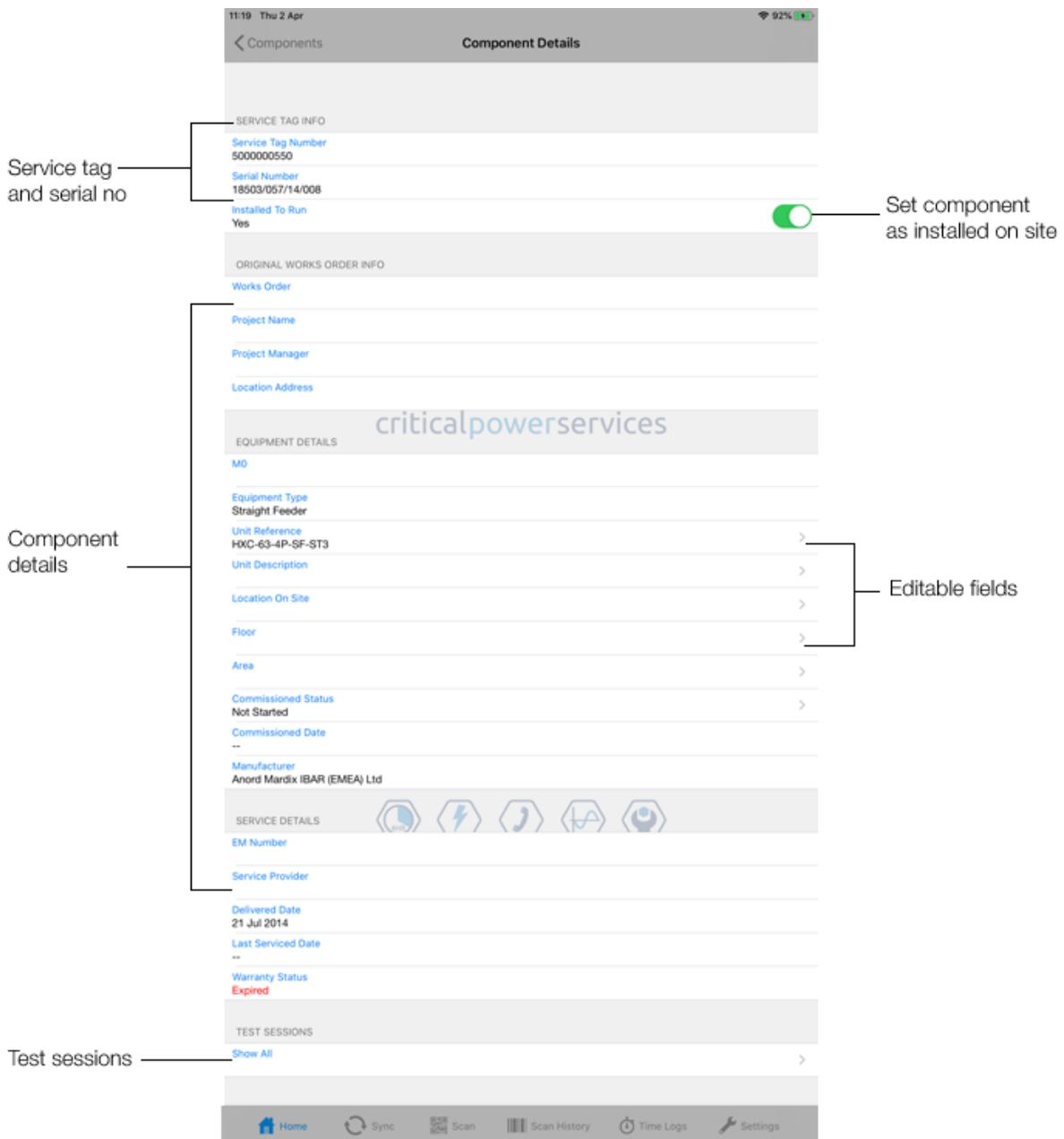
Component Details

The Component Details screen can be reached using any of the following.

- By [scanning](#) a valid service tag
- By [searching for a service tag number](#)
- By selecting a component item from the [scan history](#)
- By selecting a component item from the components list on the [Equipment Details](#) screen



Note that if you arrive at the Component Details via either the [Scan History](#) or [Search](#) screens, navigating back will take you back to the previous screen, but **via** the Components screen and [Equipment Details](#) screen for the parent equipment item.



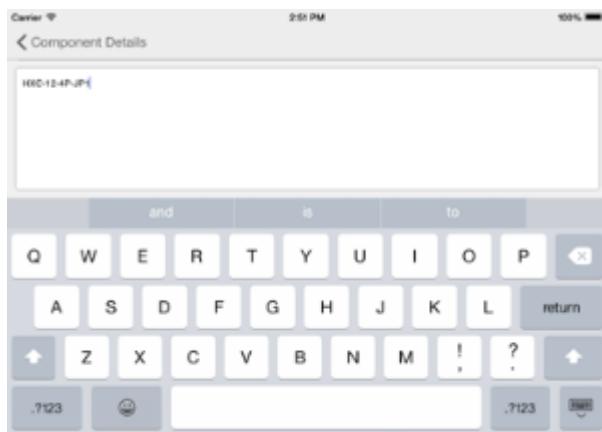
Editing Component Items

Components can be set as installed on site by simply setting the **Installed To Run** switch.

Installed To Run
Yes



Text fields such as **Unit Reference** are simply modified by selecting the field then updating the text.



Other field such as **Commissioned Status** force you to choose from a list of options. This is to ensure data integrity in the main Vision database.



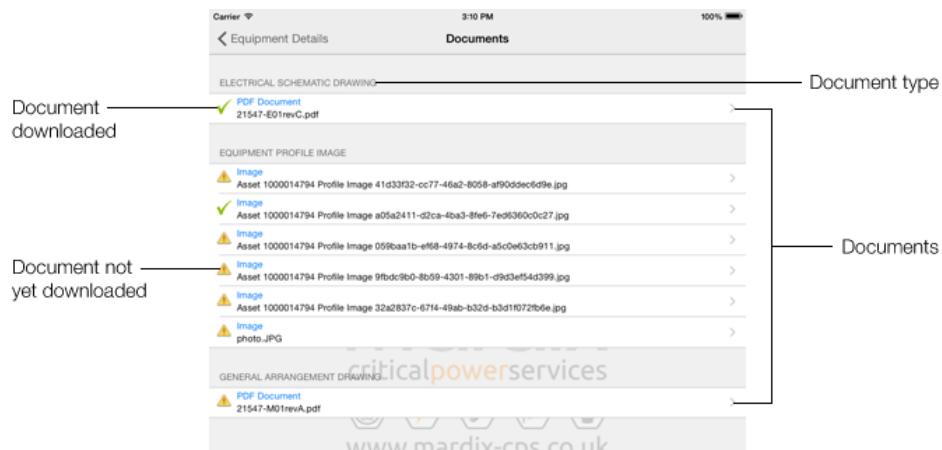
1.9.9 Equipment Documents

Documents associated with an item of equipment can be downloaded, viewed, and distributed using the Engineer App.

The Documents screen displays all documents stored against the equipment item, including general arrangement drawings, electrical schematics and profile images. Tapping on **Documents** on the [Equipment Details](#) screen will bring up the last known list of documents for the equipment item.



At this point the app will attempt to communicate with the server to bring down the latest list of documents. If there is no wi-fi connection available it will display an alert, then show the last information it obtained for the equipment item. Note that you will also need a wi-fi connection to download a document displayed in the list.

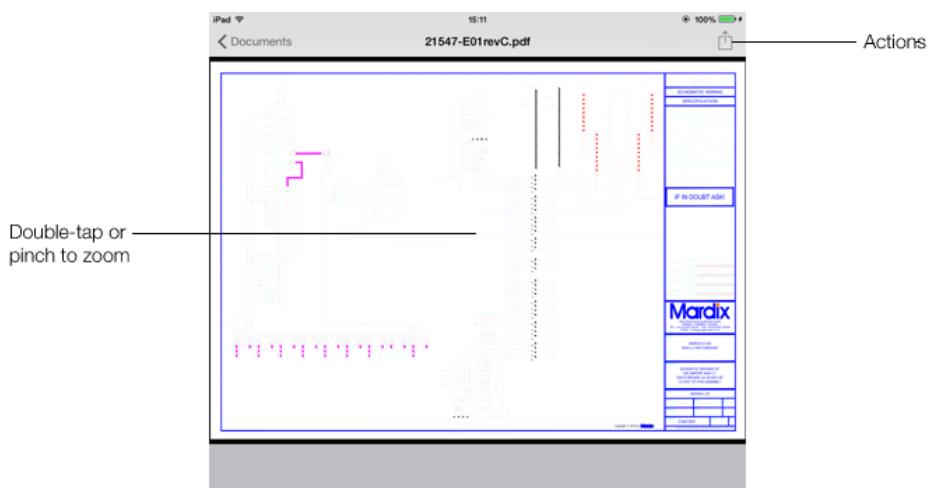


The icons displayed next to a document are as follows.

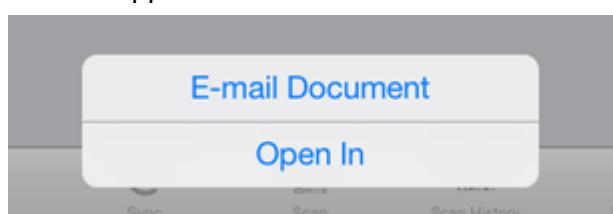
- Document not yet downloaded
- Document previously downloaded

To view a document, simply tap on it. If the document has not been previously downloaded (yellow triangle displayed), the app will attempt to contact the server to download it. If it has been downloaded since the last full sync, it will open instantly.

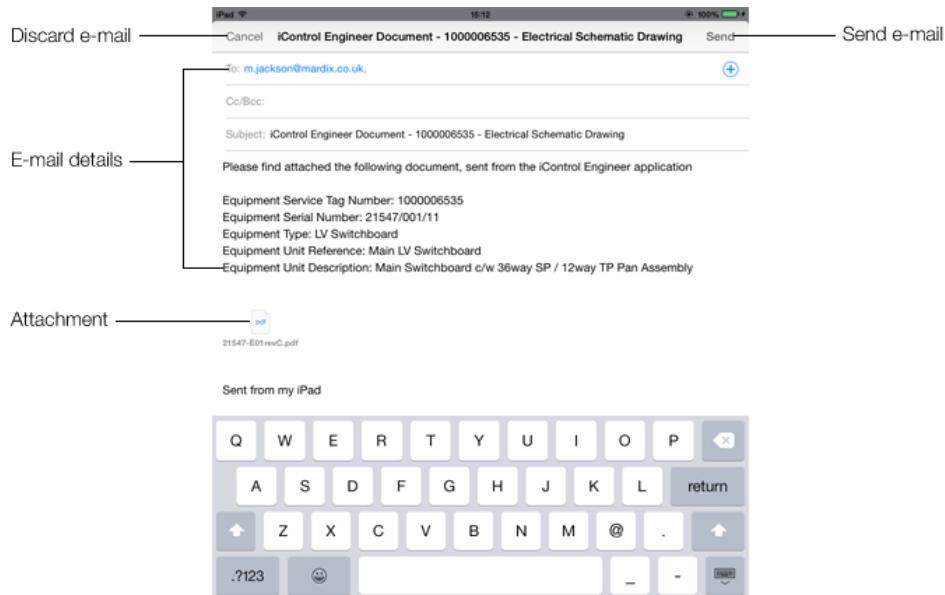
Once a document is displayed, you can zoom in and out of it by pinching or double-tapping the screen.



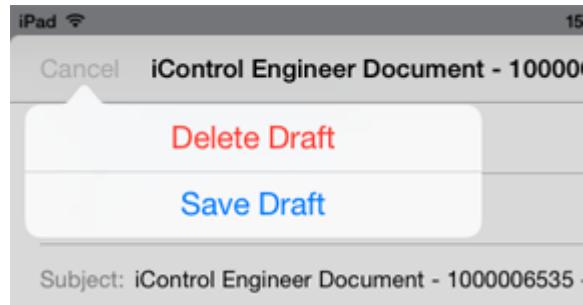
The **Actions** icon at the top right of the screen allows you to email the document, or open it in another application.



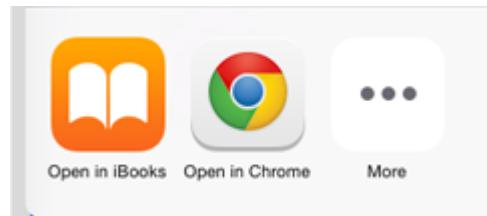
Selecting the email option opens an email dialogue with the document as an attachment and its details included in the message body.



If you decide not to send the message, tapping **Cancel** allows you to save it as a draft or simply discard it.



If you have chosen to open the document in another application, you will see a list of apps displayed that are able to open the document. Selecting one of these will then open the document in that app.



1.10 Site Visit Reports

Site visit reports can be logged using the Engineer App, and existing reports either viewed or modified.

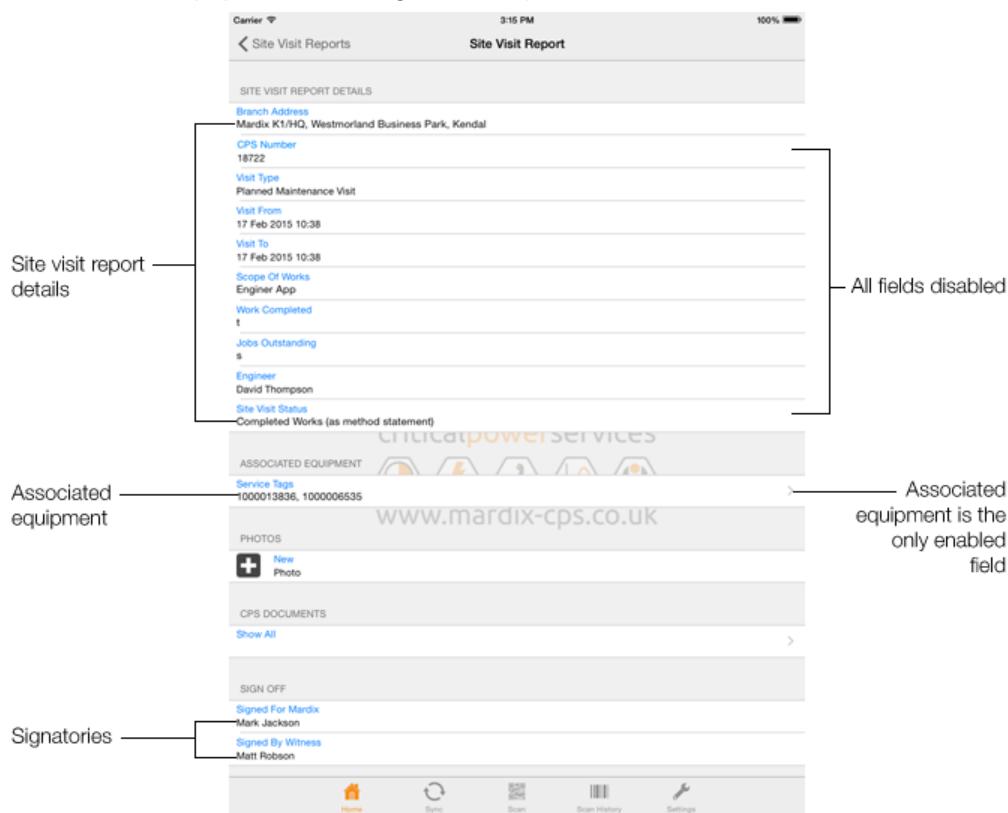
New site visit reports can be created via any of the following.

- By tapping the + icon on the Branch Details [Site Visit Reports screen](#)
- By tapping the + icon on the Equipment Details [Site Visit Reports screen](#)

Existing site visit reports can be accessed using any of the following.

- The Branch Details [Site Visit Reports screen](#)
- The Equipment Details [Site Visit Reports screen](#)
- By [searching for a site visit report](#)

Historic site visit reports that have been signed off are read-only and none of the details can be modified; the only field that can be accessed is **Associated Equipment**, in order to view a detailed list of equipment relating to the report.



1.10.1 Editing a Site Visit Report

New site visit reports, or historic site visit reports that have not yet been signed off, can be fully modified using the Engineer App.

1.10.2 Editing a Site Visit Report

New site visit reports, or historic site visit reports that have not yet been signed off, can be fully modified using the Engineer App.

Site visit reports can either be created on the app, or added onto Vision by Mardix staff then brought down onto the app by running a full [sync](#).

Basic Details

This section describes how to edit the main details of a site visit report, such as dates, works completed, and photos.

Associated Equipment

Site visit reports can have specific equipment items associated with them.

CPS Documents

CPS Documents can be added to a site visit report. Unlike test documents, these do not have to be prepared in advance, and there is no restriction to the number of documents that can be created.

Sign Off

When a site visit report has been completed, it can be signed off by the engineer and a client witness.

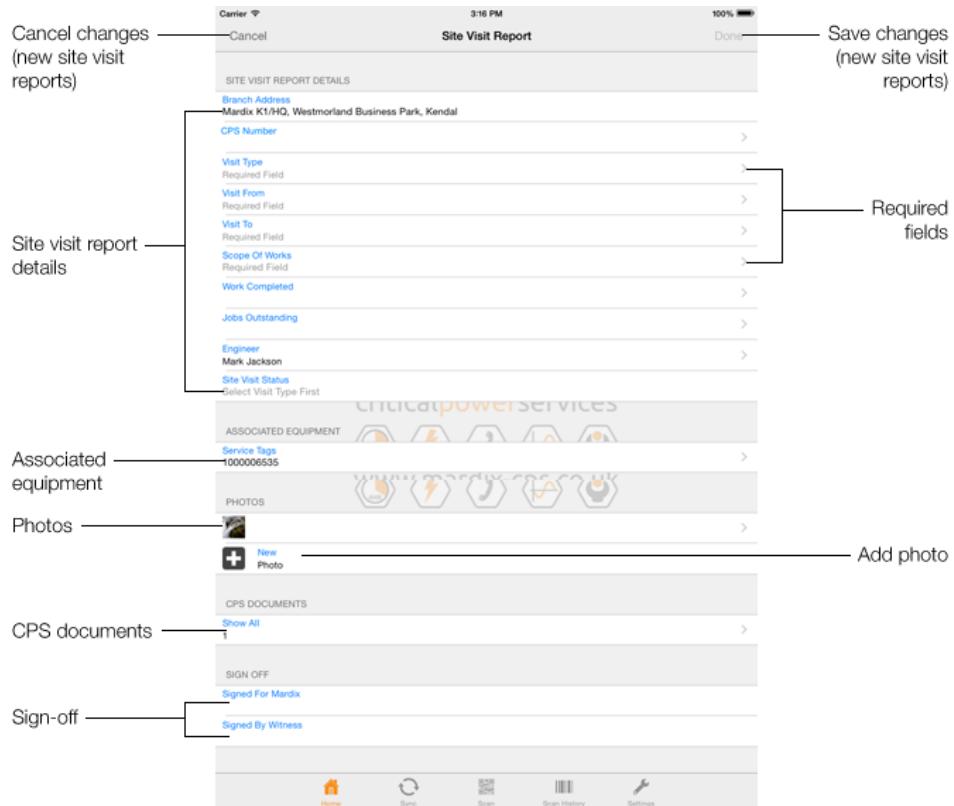
Basic Details

This section describes how to edit the main details of a site visit report, such as dates, works completed, and photos.

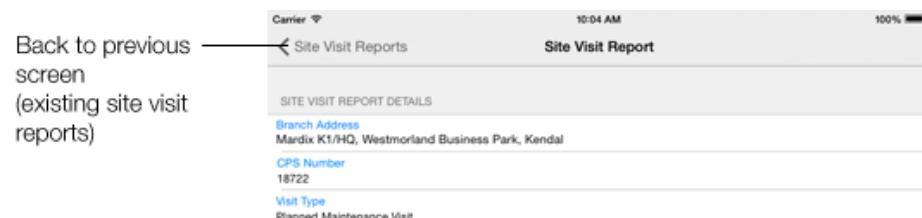
All details of a site visit report can be edited using the app, then [synced](#) up to the server. Before a site visit report can be saved however, the following fields must be completed, after which the **Done** button will be enabled allowing a save to take place; all required fields are highlighted on the screen.

- CPS Number (if applicable)
- Visit Type
- Visit From
- Visit To
- Scope Of Works

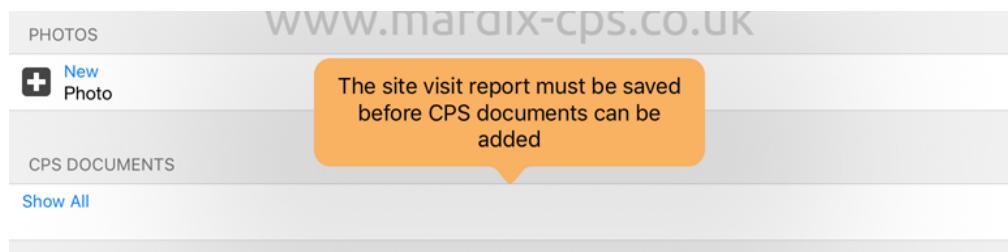
iOS Engineer App



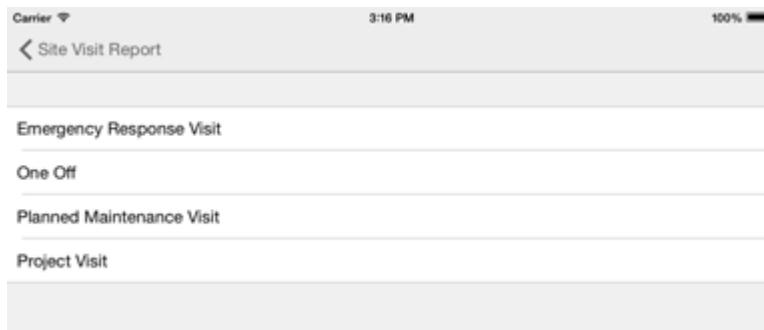
Note that the **Done** and **Cancel** buttons only apply when creating a new site visit report; if you are editing an existing site visit report your changes are automatically saved as you make them, and the navigation bar is simply used to take you back to the previous screen.



Some options, such as photos and CPS documents, can only be accessed after the site visit report has been saved. A tooltip will be displayed if an attempt is made to access these options before saving.

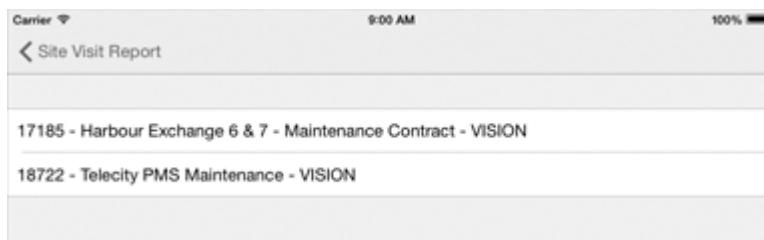


Some fields such as **Visit Type** force you to choose from a list of options.

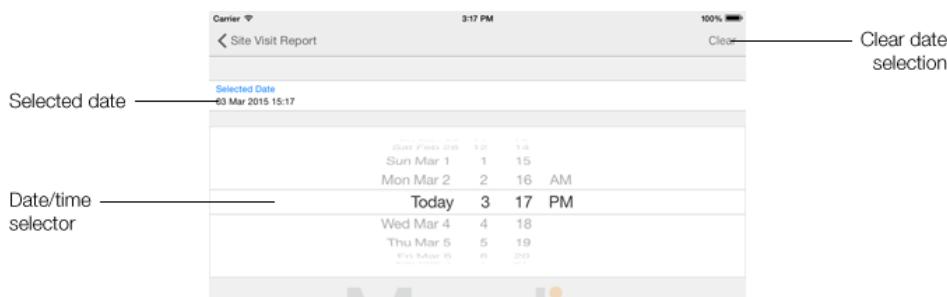


Note that the **Visit Type** must be set before the **Site Visit Status** can be selected. Also, subsequently changing the **Visit Type** will reset the **Site Visit Status** to 'Works Pending'.

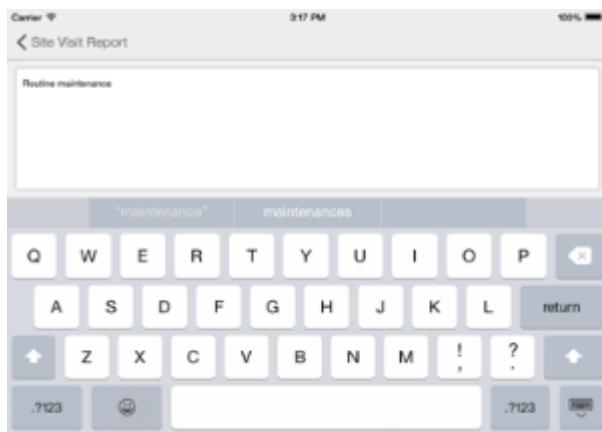
The **CPS Number** field will only supply valid CPS numbers for the selected branch.



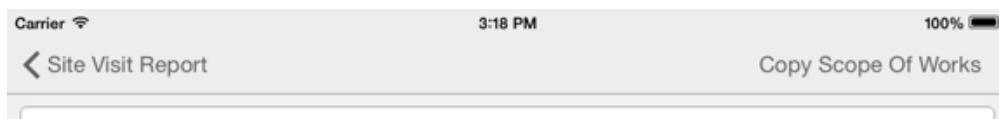
Any date fields are set using a date/time selector. This screen includes a **Clear** button which can be used to clear the selected date.



Text fields such as **Scope Of Works** are simply modified by selecting the field then updating the text.

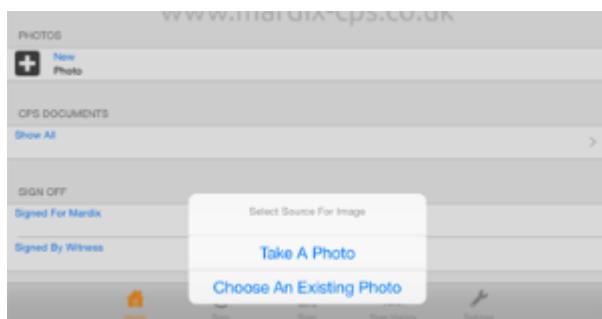


When editing **Work Completed** or **Jobs Outstanding**, you will notice a **Copy Scope Of Works** button at the top right of the screen, which is used to copy the existing text directly from the **Scope Of Works** field to speed up completion of these fields.



Adding Photos

To add a photo, tap on **New Photo** then select either **Take A Photo** (to use the device's camera to take a new photo) or **Choose An Existing Photo** (to use a photo previously stored on the device's camera roll).



If you select **Take A Photo**, the camera will open within the app and allow you to take a picture. Tap on **Use Photo** to select the photo you have just taken, or **Retake** to take another picture if you are not happy with the one you have taken.



You can delete a photo that you have added by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.



Associated Equipment

Site visit reports can have specific equipment items associated with them.

This is particularly important when you need to add [CPS documents](#) to the report, as these can only be created for equipment that has previously been associated.

Previewing Associated Equipment

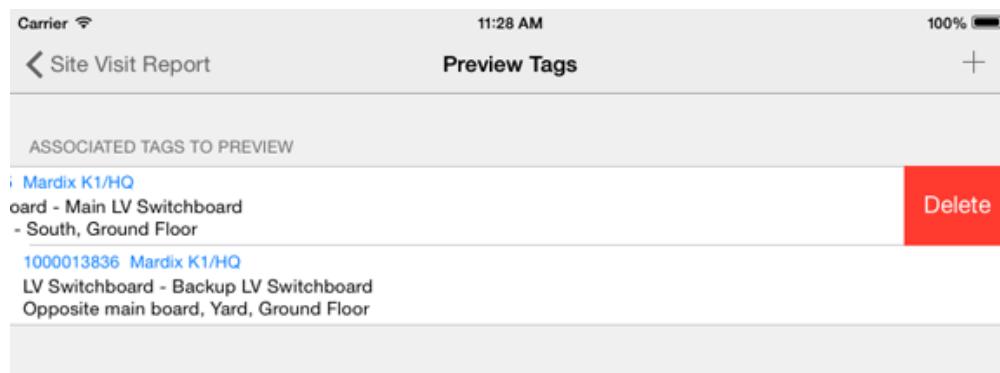
From the Site Visit Report screen, select **Associated Equipment**. This will bring up the Preview Tags screen containing a list of equipment that is currently associated with the site visit report.



If the site visit report was specifically created against a piece of equipment, that equipment item will be automatically added to the list.

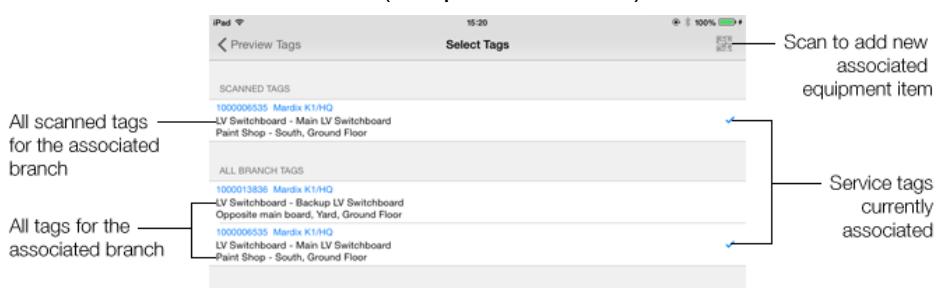


You can remove an associated tag on the Preview Tags screen by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.



Adding Associated Equipment

From the Preview Tags screen, tapping on the **+** icon at the top right to bring up the Select Tags screen. This screen will list all equipment from the branch, as well as any tags that you have scanned from the branch (for quick reference).



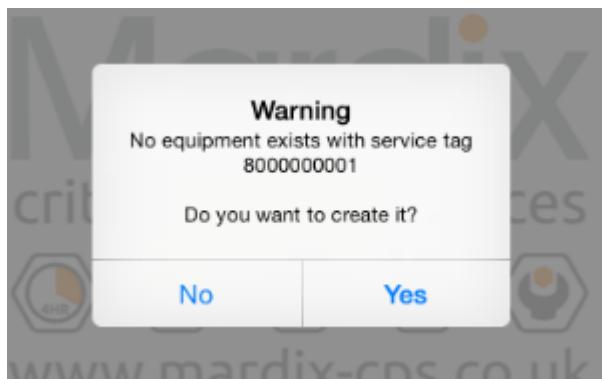
You can add more associated equipment by

- tapping on the **scan icon** at the top right of the screen to brings up a scan window, then scanning the service tag you want to add
- tapping an item in either list (note that tapping an item that is already ticked will remove it from the list of associated equipment items)



Tagging Equipment

If you scan a service tag that does not already exist in the database, you will be prompted to confirm that you want to create the equipment item.



Select **Yes**. The **Equipment Details** screen will now be displayed for the new equipment item.

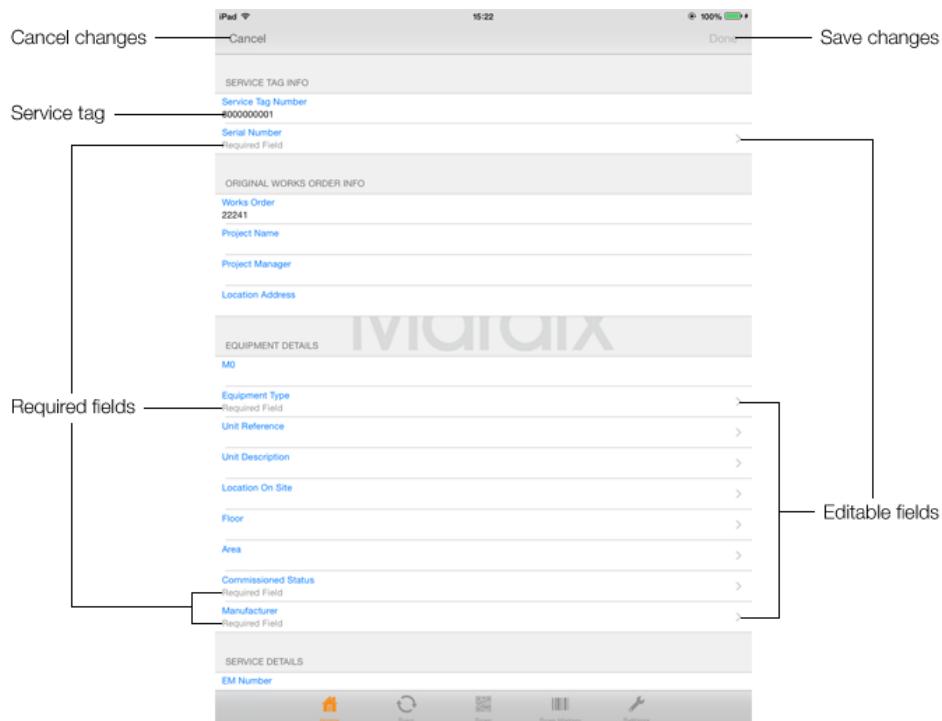
This is similar to the normal Equipment Details screen, except you will be able to modify additional fields, some of which must be completed before the **Done** button is enabled.

- Serial Number
- Equipment Type
- Commissioned Status

- Manufacturer

Selecting **Done** will create the equipment item and add it to the list of branch equipment.

Selecting **Cancel** will discard the changes and the equipment item will not be created.



Note that in order to create equipment, you must firstly select a CPS number on the [Site Visit Report Details](#) screen.

SITE VISIT REPORT DETAILS

Branch Address

Mardix K1/HQ, Westmorland Business Park, Kendal

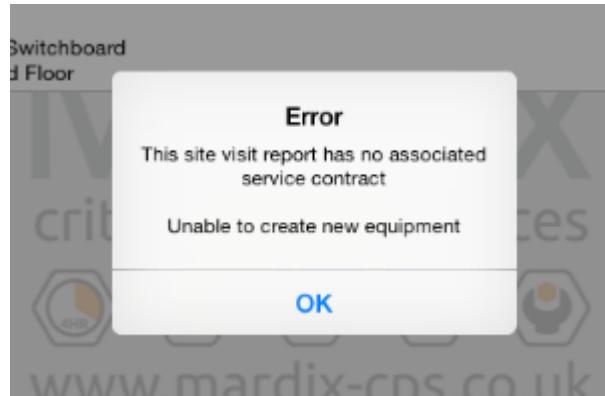
CPS Number

18722

Visit Type

Planned Maintenance Visit

If not, you will receive an alert like the one shown below.



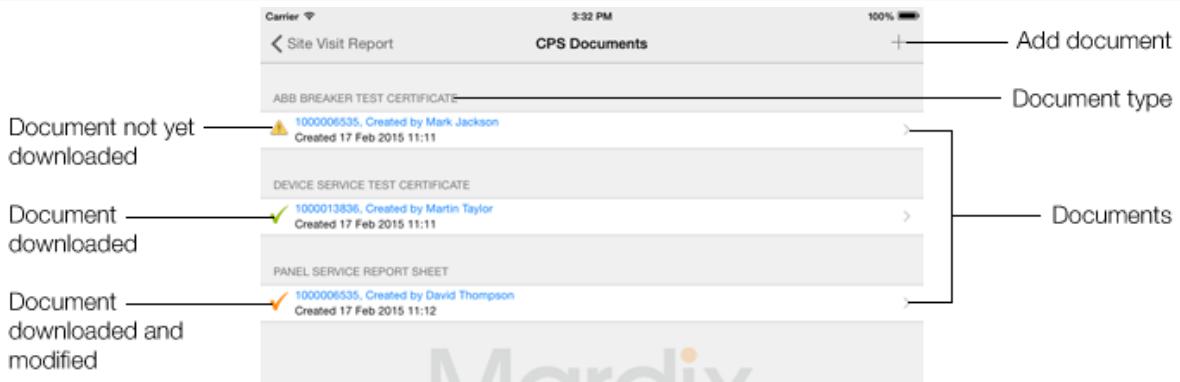
CPS Documents

CPS Documents can be added to a site visit report. Unlike [test documents](#), these do not have to be prepared in advance, and there is no restriction to the number of documents that can be created.

Tapping on CPS Documents for a [Site Visit Report](#) will bring up the last known list of CPS documents for the site visit report. The list is grouped by document type, and each document shows when it was created, by who, and if it has an associated equipment item.



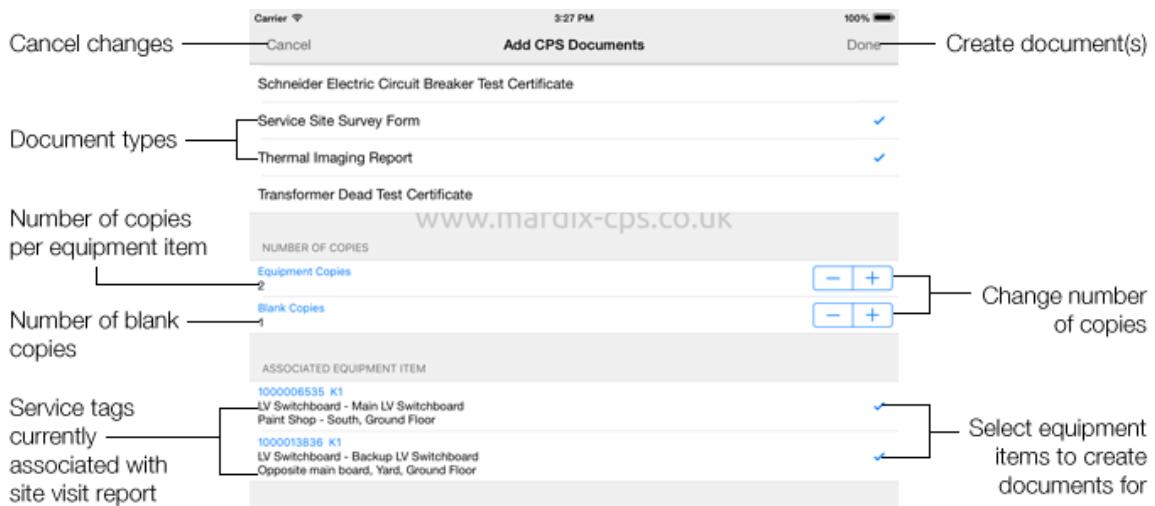
At this point the app will attempt to communicate with the server to bring down the latest list of documents. If there is no wi-fi connection available it will display an alert, then show the last information it obtained for the equipment item. Note that you will also need a wi-fi connection to download a document displayed in the list.



The icons displayed next to a document are as follows.

- ⚠ Document not yet downloaded
- ✓ Document previously downloaded or just created
- ✓ Document modified

New documents can be added by tapping on the + icon at the top right of the screen. This will bring up the Add CPS Documents screen.



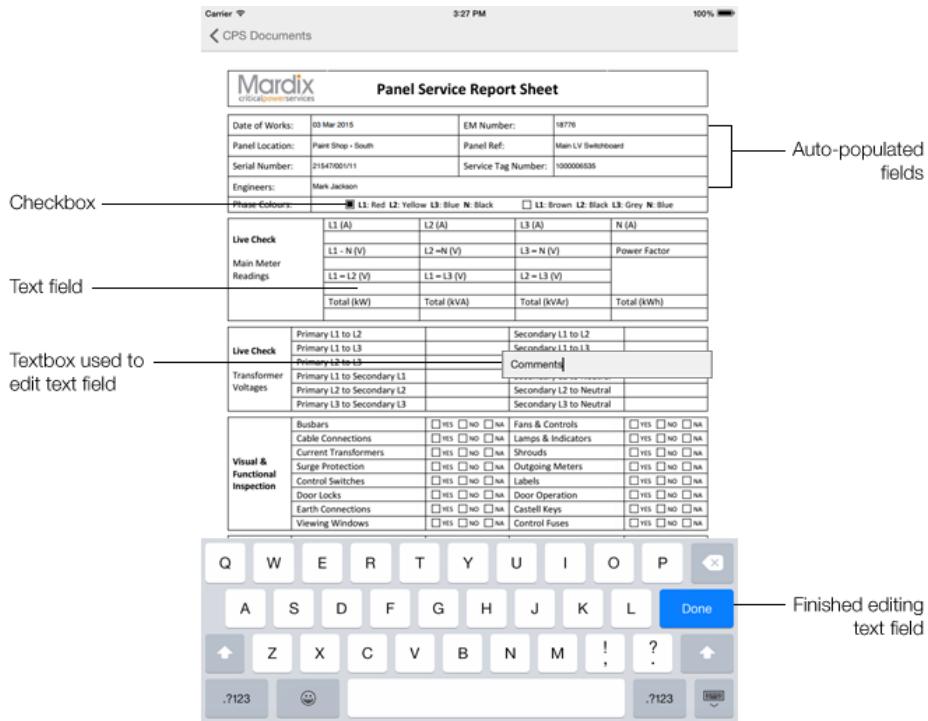
From here you can choose

- the type of document(s) to add
- the number of copies to create for each selected piece of equipment
- the number of blank copies to create (only visible for sites with no active service contract)
- which associated equipment items to create documents for (if equipment copies have been selected)



Note that to create a CPS document for a specific piece of equipment, it must have been added to the site visit report as an **associated equipment item**. If the site has a valid service contract, a CPS document must always be associated with an item of equipment.

To view a document in the documents list, simply tap on it. If the document has not been previously downloaded (yellow triangle displayed), the app will attempt to contact the server to download it. If it has been downloaded since the last full sync, or if you have just created it, it will open instantly.



If you are the engineer who created the document, you can modify it.

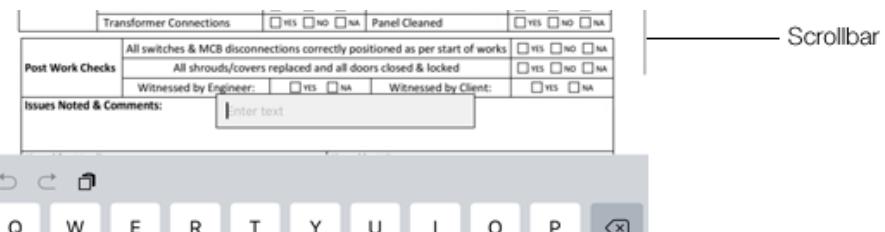
- Check boxes and radio buttons can be modified simply by tapping on them
- Tapping on a text field will bring up a floating grey text box in which you can add or modify the text, then tap on **Done** to confirm the change

Navigating back to the previous screen will save the document.

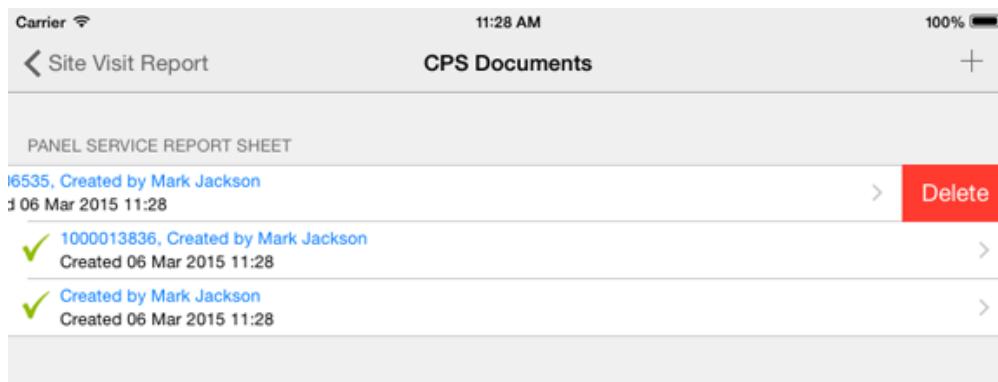


The fields at the top of each document (e.g. Serial Number, Location etc) are automatically pre-populated from Vision to begin with; however it is important to note that this information is for suggestion only, and **may not necessarily be accurate**; it is important to check these fields and update them if any of the details are incorrect, particularly if specific wording (such as Location) is required to match a method statement.

Note that when editing a text field at the bottom of a document, you can scroll the document up to see the text field you are editing.



You can delete a CPS Document that you have added by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.



Only edited documents are [synced up to the server](#), so any that you generate but do not edit will not be synced.

Sign Off

When a site visit report has been completed, it can be signed off by the engineer and a client witness.

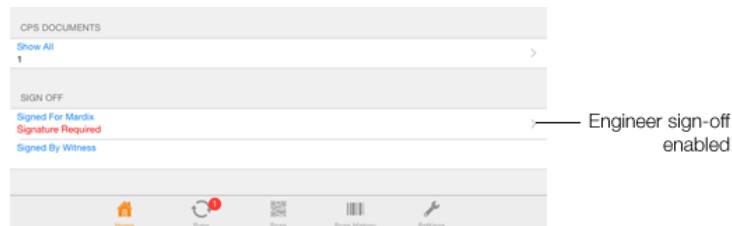
A site visit report can be signed off when all required fields have been completed, along with

- Work Completed
- Jobs Outstanding
- Site Visit Status (must be set to something other than 'Works Pending')

Note that the site visit report can only be signed off after it has been saved. A tooltip will be displayed if an attempt is made to sign off a site visit report before saving.



When all required information is complete and the site visit report has been saved, the **Signed For Mardix** field will be enabled, and **Signature Required** will be displayed in red text.

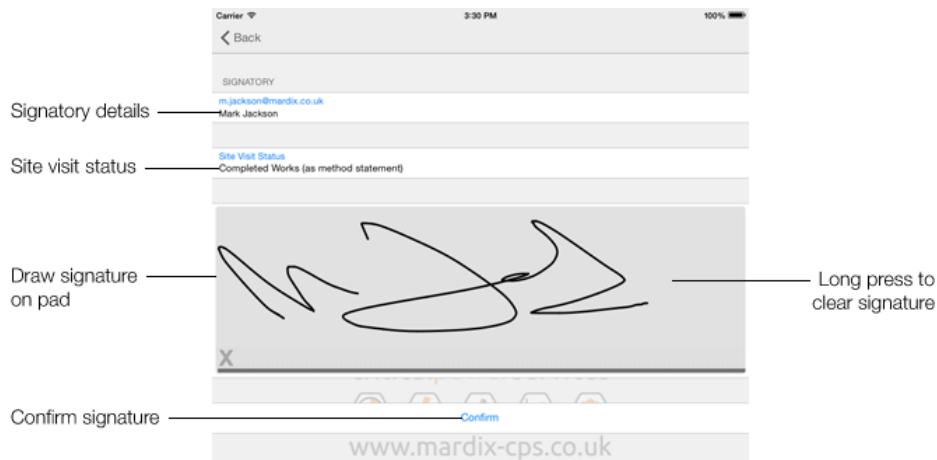


Tapping on this will bring up a list of engineers; select the name of the engineer who is signing off the site visit report.



You will then be taken to the sign-off screen. Verify all details are correct, then simply draw your signature on the grey pad.

If you need to redraw the signature at any point, long press on the grey pad to clear it.

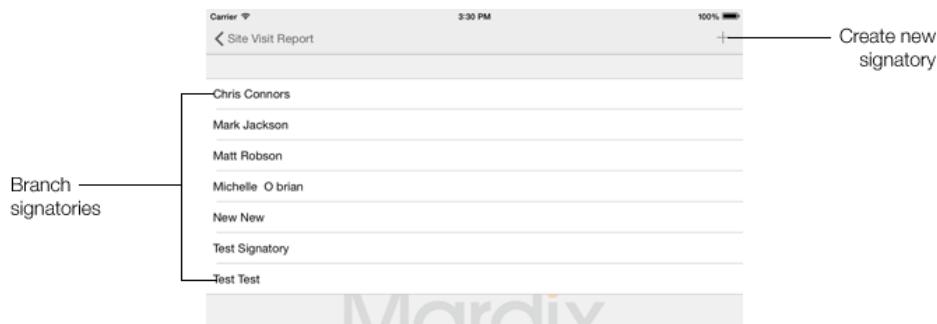


Tapping **Confirm** will submit the signature and take you back to the Site Visit Report screen, with the signing engineer's name now displayed under **Signed For Mardix**.



Once the engineer has signed off the site visit report, the **Signed By Witness** field is enabled allowing a client witness to also sign it off, again with **Signature Required** displayed in red text. A list of known client personnel at that branch will be displayed; selecting one will bring up the same sign-off screen as detailed above.

This step is necessary in order for the site visit to be marked as complete.



If the client witness is not listed, you can easily add them by tapping the + icon at the top right of the screen. This will bring up a simple form allowing you to quickly fill in their details. Once submitted, the witness will be [synced](#) up to the server and will then be available to select for all subsequent site visits.



Only when both signatures have been added is the site visit marked as complete, after which no further changes can be made.



Remember that you must use the **Done** button to commit any signatures.

1.11 Test Documents

The Engineer App can be used to complete and sign off electronic test certificates, for both factory and on-site testing.

1.11.1 Background

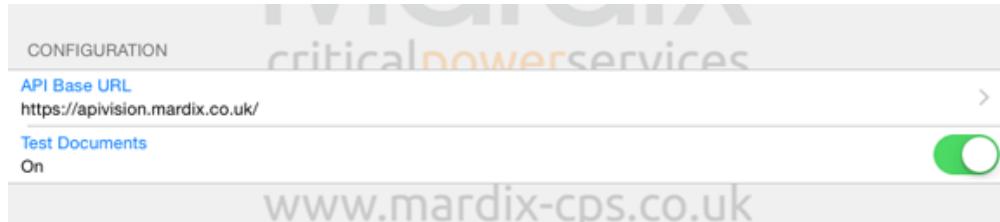
Mardix testers previously used paper-based test documents, which were usually supplied in packs consisting of specific collections of documents relevant to the type of tests being performed. In addition, each document was of a bespoke design for the works order and M0 of the piece of equipment being tested. This involved a lot of manual input and time to prepare a pack for each individual test session.

The Engineer App provides a flexible, efficient and paper-free version of this process, removing some of the more repetitive aspects of the preparation phase, and providing a database history of all test sessions performed. Test sessions can be signed off on the iPad by the tester and a witness, upon completion of which a final PDF document is produced, comprising the master QMF120 document (complete with both signatures) and all test documents. This document is then automatically e-mailed to both the tester and the test team's shared mailbox, with a separate copy saved to the Mardix network.

The application allows pre-arranged test sessions to be accessed and completed, or ad-hoc test sessions to be created directly from the application itself.

1.11.2 Enabling Test Documents in the App

The Test Documents functionality firstly needs to be [enabled using the Settings screen](#).



1.11.3 Test Sessions Screen

Once the test documents functionality is enabled, you should see a **Test Sessions** field displayed on each [Equipment Details](#) screen.



Tapping on this will bring up a list of any test sessions for the equipment item.



At this point the app will attempt to communicate with the server to bring down the latest list of test sessions. If there is no wi-fi connection available it will display an alert, then show the last information it obtained for the equipment item.

Each test session will display

- its status (such as 'Not Started' or 'In Progress')
- the type of test session (such as 'Site Live Test' or 'Factory Test')
- the start date of the test session (if this has been set)



Selecting a test session will bring up its [electronic test certificate screen](#). You can also [create a new test session](#) by tapping on the + icon at the top right of the screen.

1.11.4 Creating a New Test Session

Test sessions can be created in two ways; either by Mardix testing or service personnel entering them into the Vision system, in which case they will be downloaded onto the app by running a full [sync](#); or they can be created directly from the app itself.

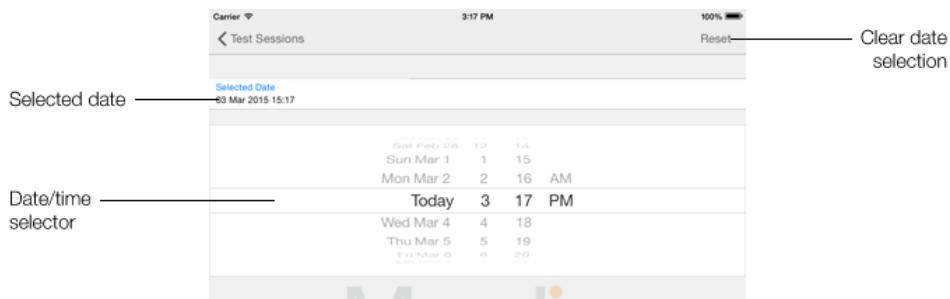
To create a test session from the app, tap on the + icon at the top right of the [Test Sessions screen](#) for the piece of equipment you are testing. This will bring up the New Test Session screen.

From here you can select

- the test type
- the start/end dates of the test session (optional)
- the tester (optional)



The **Test Type** and **Tester** fields simply bring up a list for you to select from. For the dates, a date selector is displayed; this screen includes a **Reset** button which can be used to clear the selected date.



Tap **Done** to commit your changes and create the test session. Note you will need a wi-fi connection at this point as the app needs to contact the server to request the correct documents.



The only field that is actually required is **Test Type**, and in general if you are unsure of who the tester is going to be then it is best to leave this blank, as if a tester has been set then only that tester can activate and complete the test session.

If in doubt, complete the **Test Type** field **only**.



Selecting the correct **Test Type** is very important, as this determines exactly which tests and test documents will comprise the test session. In addition, all test documents are prepared in advance for each piece of equipment and uploaded to Vision by the testing team, so it is important that the test is planned.

If in any doubt, contact the Mardix testing department.

1.11.5 Test Certificate

The **Test Certificate** screen is the entry point for a test session, and is effectively an electronic version of the QMF120 form.

From this screen, you can view information about the equipment item being tested; details of the test session; and results of the individual tests. If the test session is active on the current device, you can also modify and complete the individual test documents associated with the tests.

Test certificates are accessed from the [Test Sessions screen](#) for the piece of equipment you are testing.

Activation

When you access a test certificate for the first time, you will need to activate it before you can complete it.

Completing a Test Certificate

After activating a test session, its Test Certificate screen will display links to the individual tests which can now be completed using the app.

Pre-Activation

Normally, activating a test session requires a wi-fi connection, as the process involves the device contacting the live Mardix server to download the test documents. However, in certain situations this may not be practical (for example if you are scheduled to test some pieces of equipment on a secure site with no wi-fi connection).

Activation

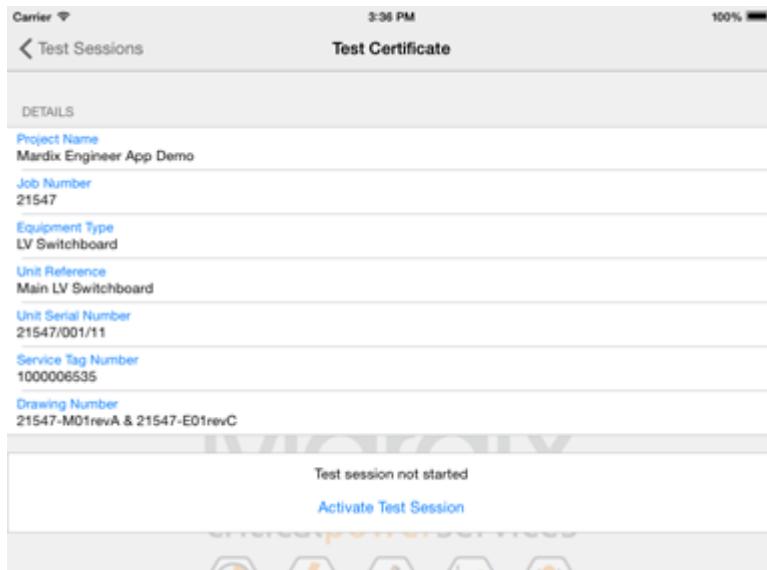
When you access a test certificate for the first time, you will need to activate it before you can complete it.

Activation is the process whereby the app requests the actual test documents from the server and brings them down onto the app. Again, for this to work you will need to be in range of a wi-fi connection.

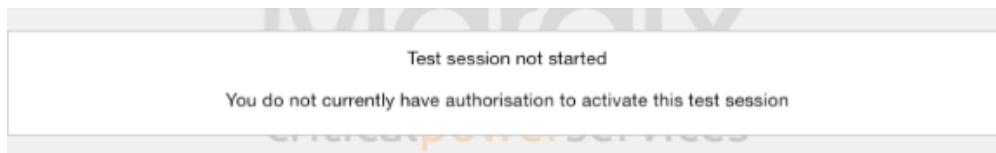


If you anticipate needing to perform this step outside of wi-fi range, then you will probably need to [pre-activate the test session](#).

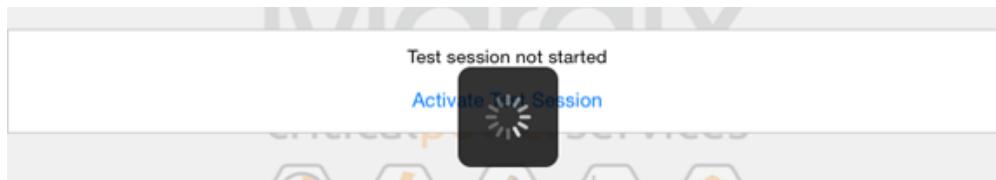
At first, all you will see on the Test Certificate screen is basic details of the equipment being tested, and an **Activate Test Session** button.



If however the test session has been created for a named tester other than yourself, then a message will be displayed informing you that you do not have authorisation to activate the test session.



To activate the test session, tap on the **Activate Test Session** button. You should see a progress icon appear briefly while the app contacts the server, then the **full details of the test certificate will be displayed**.



Once a test session has been activated, it is then locked down to the activating user and cannot then be accessed by anyone else.

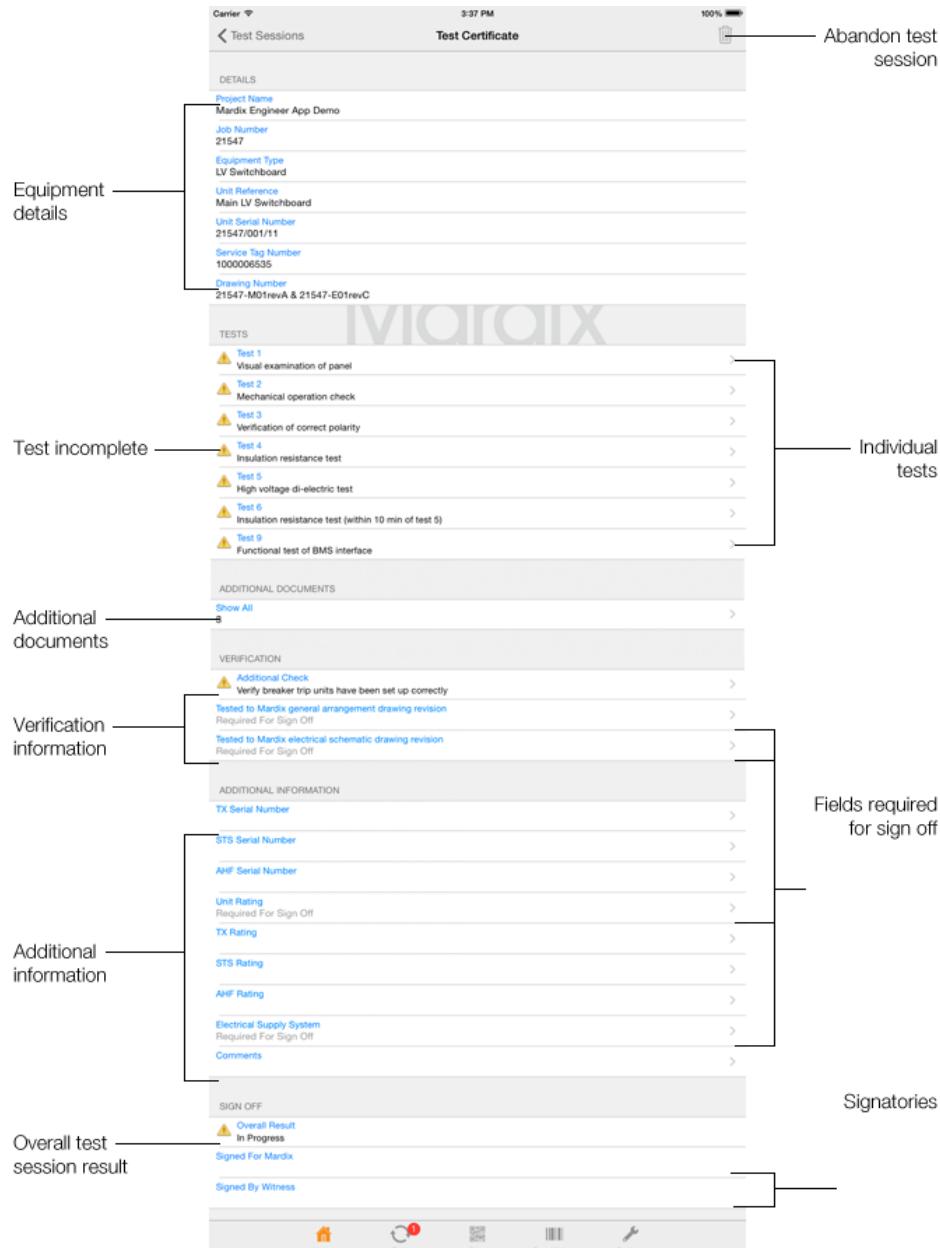
For **IBAR Tests** and **IBAR Tap Off Box Tests** only, upon tapping **Activate Test Session** you will be required to scan a location tag, which should be present at all testing stations. Once you have scanned a valid location tag, activation will proceed as normal.



Completing a Test Certificate

After activating a test session, its Test Certificate screen will display links to the individual tests which can now be completed using the app.

Note the process for completing IBAR Installation Test Certificates specifically is [further detailed here](#).



Test Documents

To begin with, all tests appear with yellow warning triangle icons to indicate they have not yet been completed. To bring up a test document, tap on its corresponding test on the screen. You should now see the test document displayed on the screen, with the document type (e.g. **STF01**) and the equipment details displayed at the top.

You can edit any of the fields on the test document by tapping on them

- Check boxes and radio buttons can be modified simply by tapping on them
- Tapping on a text field will bring up a floating grey text box in which you can add or modify the text, then tap on **Done** to confirm the change



The equipment details at the top of each certificate are automatically populated, and cannot be changed,

Tapping the **Test Certificate** link at the top left of the screen will save your changes and take you back to the Test Certificate screen.

Carrier 3:38 PM 100% **STF01**

Mardix Visual Inspection Certificate
In accordance with BS EN 61439-1:2011 Routine Tests

PROJECT: Mardix Engineer App Demo
JOB NO: 21547
DATE: 03 Mar 2015
EQUIPMENT: Main Switchboard c/w 36way SP / 12way TP Pan Assembly
PANEL REFERENCE: Main LV Switchboard
UNIT SERIAL NO: 21547001/11

CARRY OUT VISUAL INSPECTION OF:

	COMMENTS
1. Cabinet finish	<input checked="" type="checkbox"/> sign n/a in comments for non-applicable inspections a. Defect free b. Colour in accordance with GA drawing c. Internally clear of foreign bodies/debris
2. Components	<input type="checkbox"/> including uniquely coloured doors where applicable (in accordance with GA & schematic drawing)
3. Wiring	<input type="checkbox"/> a. Presentable b. AC & DC/volt free/comms segregated c. Sizing in accordance with schematic drawing
4. Labels	<input type="checkbox"/> a. Voltage warning per inner door / cover b. Circuit / IO device references
5. Phase indication	<input type="checkbox"/> a. Input & output terminals b. Main busbars per unit section c. STS & transformer cable ID tags

Comments: [Text input field]

Keyboard Overlay: A virtual keyboard is displayed over the bottom of the screen, showing letters Q through P and numbers 123. A blue "Done" button is visible on the right side of the keyboard.

Note that when editing a text field at the bottom of a document, you can scroll the document up to see the text field you are editing.

Q W E R T Y U I O P **A S D F G H J K L** **Done**

Scrollbar: A vertical scrollbar is located on the right side of the document area.

List of inspection items:

- b. Main busbars per unit section [Text input field]
- c. STS & transformer cable ID tags
- d. Degree of protection
a. External (in accordance with GA drawing)
b. Internal (n/a)
- e. Segregation (in accordance with GA drawing)
- f. MCBs / RCBOs fitted in accordance with schedule
Schedule reference: [Text input field] **Enter text**

Keyboard Overlay: A virtual keyboard is displayed over the bottom of the screen, showing letters Q through P and numbers 123. A blue "Done" button is visible on the right side of the keyboard.

All test documents will contain a pass/fail option, which is usually found at the bottom of the document. Simply tap the relevant option to set the test as either passed or failed.

In some cases, there will be a third option of N/A - select this if the test is not applicable to the test session.

PASS FAIL

Transfer result to form QMF120

Some test documents require you to complete all Pass/Fail/NA radio buttons before the test can be assigned an overall result.

<input type="radio"/> PASS	<input type="radio"/> FAIL	<input type="radio"/> N/A
<input type="radio"/> PASS	<input type="radio"/> FAIL	<input type="radio"/> N/A
<input type="radio"/> PASS	<input type="radio"/> FAIL	<input type="radio"/> N/A
<input type="radio"/> PASS	<input type="radio"/> FAIL	<input type="radio"/> N/A

The QMF121 (normally used for tests 4, 5 & 6) differs slightly from the other documents as follows.

- A single document covers all three tests 4, 5 & 6 - selecting any of these tests will bring up the same document
- Each test's pass/fail option is displayed in a separate section
- The value selected in the **Voltage** radio buttons for tests 4 & 6 is very important, as this is recorded on the final composite test document produced upon completion of the test session
- Similarly, the value entered in the **Inst Ref** fields for tests 4, 5 & 6 is also recorded on the final document

CHECK / TEST	INST REF	RESULT
Insulation resistance test	Mac	200+ MO is the standard pass result in this test.
		CLEAN E - CASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A CASE - N <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A N - L2 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
	A1	CLEAN E - N <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A CASE - L1 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A N - L3 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
		CLEAN E - L1 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A CASE - L2 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A L1 - L2 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
		CLEAN E - L2 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A CASE - L3 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A L1 - L3 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
		CLEAN E - L3 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A N - L1 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A L2 - L3 <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
		<input type="radio"/> PASS <input type="radio"/> FAIL <input type="radio"/> N/A
High voltage dielectric test	Mac	Note both pass or fail & result in this test.
1.9kV for 1 Second	I114	CLEAN EARTH - CASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA CLEAN EARTH - NEUTRAL <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA
		NEUTRAL - CASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA PHASE - PHASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA
		PHASE - CASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA PHASE - PHASE <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A _____ mA
		<input type="radio"/> PASS <input type="radio"/> FAIL <input type="radio"/> N/A

Separate results for individual tests

Test results are displayed on the Test Certificate screen as follows.

- test passed
- test failed
- test not applicable



Additional Documents

Additional documents can be added to a test session. Unlike test documents, these do not have to be prepared in advance, and there is no restriction to the number of documents that can be created.

Adding Test Documents

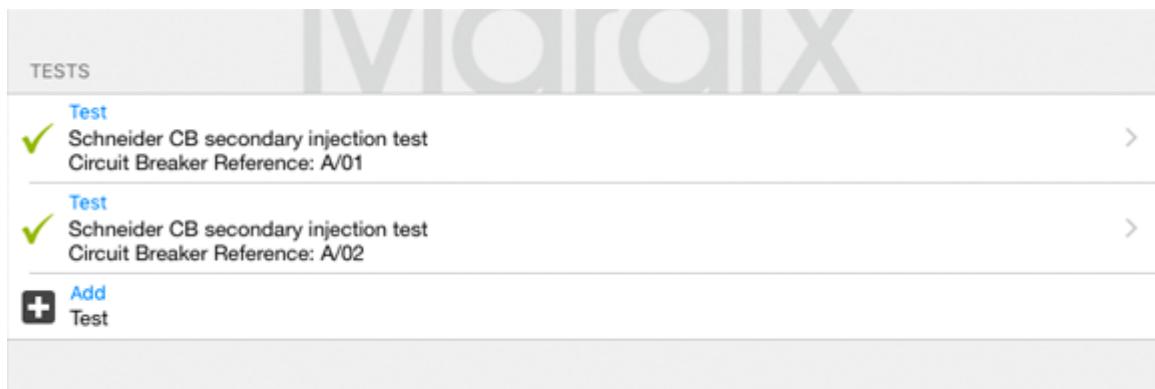
Some test session types allow you to add new tests. These test session types usually only have one associated test type. Tapping on the **Add Test** button will add a new test to the list.



Any tests that you have created, but not yet synced up, can be deleted by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.

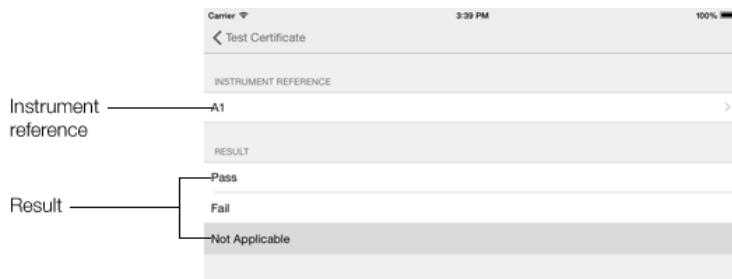


Some test sessions that allow you to create tests display additional information to distinguish between tests; for example, Schneider CB Secondary Injection Tests display the circuit breaker reference from the associated document.



Tests Without Documents

Some tests on a Test Certificate do not have documents associated with them. For these tests, you will firstly need to set the **Instrument Reference**, after which you will then be able to simply select one of the results displayed.



Other Information

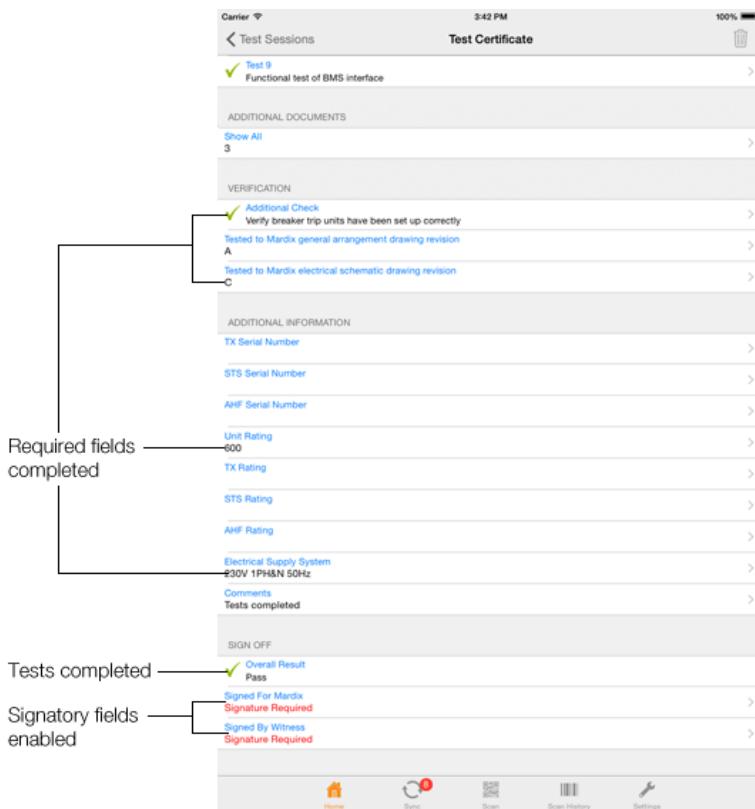
There are a number of other fields that can be completed on the test certificate; these either prompt you to enter text via a text editor, or to select values from a list.

In addition to the individual tests themselves, the fields that must be completed before a test certificate can be signed off are:

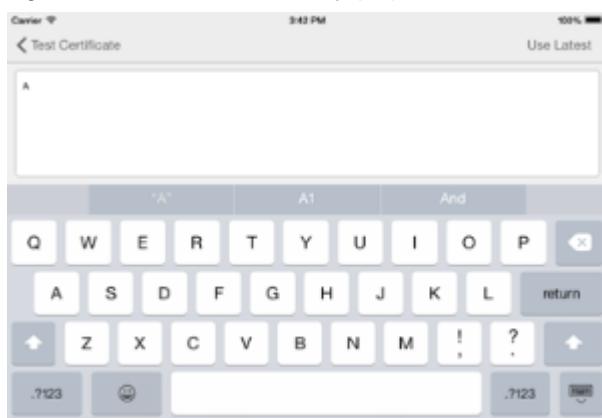
- Verify breaker trip units have been set up correctly
- Tested to Mardix general arrangement drawing revision
- Tested to Mardix electrical schematic drawing revision
- Unit Rating
- Electrical Supply System

Most of these fields display 'Required For Sign Off' until they are completed.

The text entered into the **Comments** field, although not required, will be displayed under that test session on the [Test Sessions screen](#), so can be useful to highlight specific information about a test session (for example, if it only covers part of a panel).



When editing the **Tested to Mardix general arrangement drawing revision** and **Tested to Mardix electrical schematic drawing revision** fields, there is a **Use Latest** button at the top right that will automatically populate the latest relevant drawing revision from the Vision data.



When all tests are complete and their result fields have been set, the **Overall Result** will be displayed on the Test Certificate screen as

- pass
- fail

Once all required fields have been completed, the test certificate can be [signed off](#).

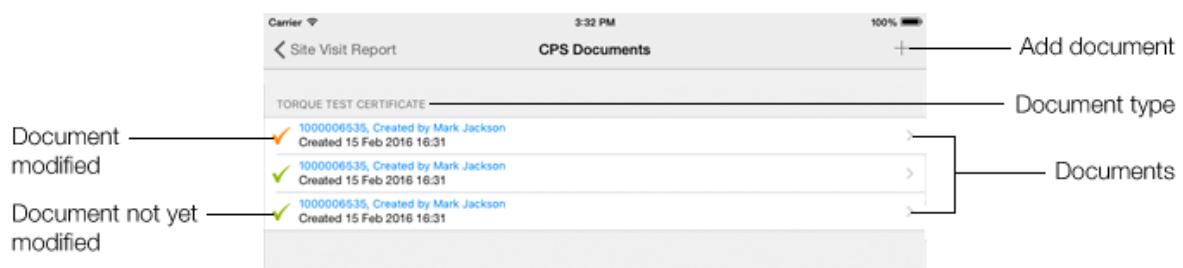
Abandoning a Test Session

Tapping the **Abandon** icon will close off the test session and mark it as 'Abandoned'. This operation requires a wi-fi signal to complete.

Additional Documents

Additional documents can be added to a test session. Unlike [test documents](#), these do not have to be prepared in advance, and there is no restriction to the number of documents that can be created.

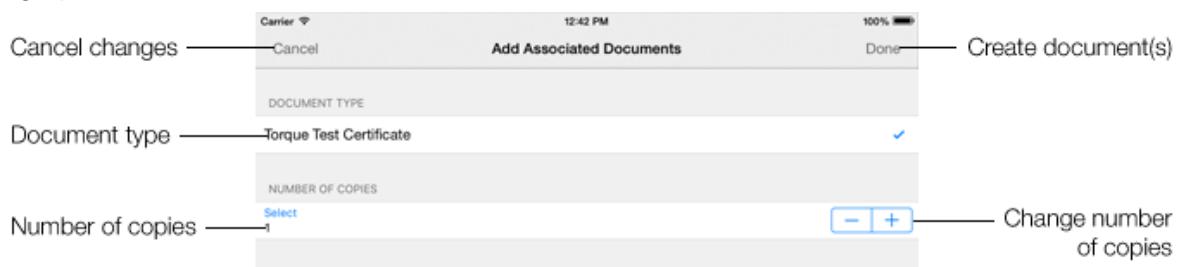
Tapping on Additional Documents for a [Test Certificate](#) will bring up the last known list of additional documents for the test session. The list is grouped by document type, and each document shows when it was created.



The icons displayed next to a document are as follows.

- Document not yet modified
- Document modified

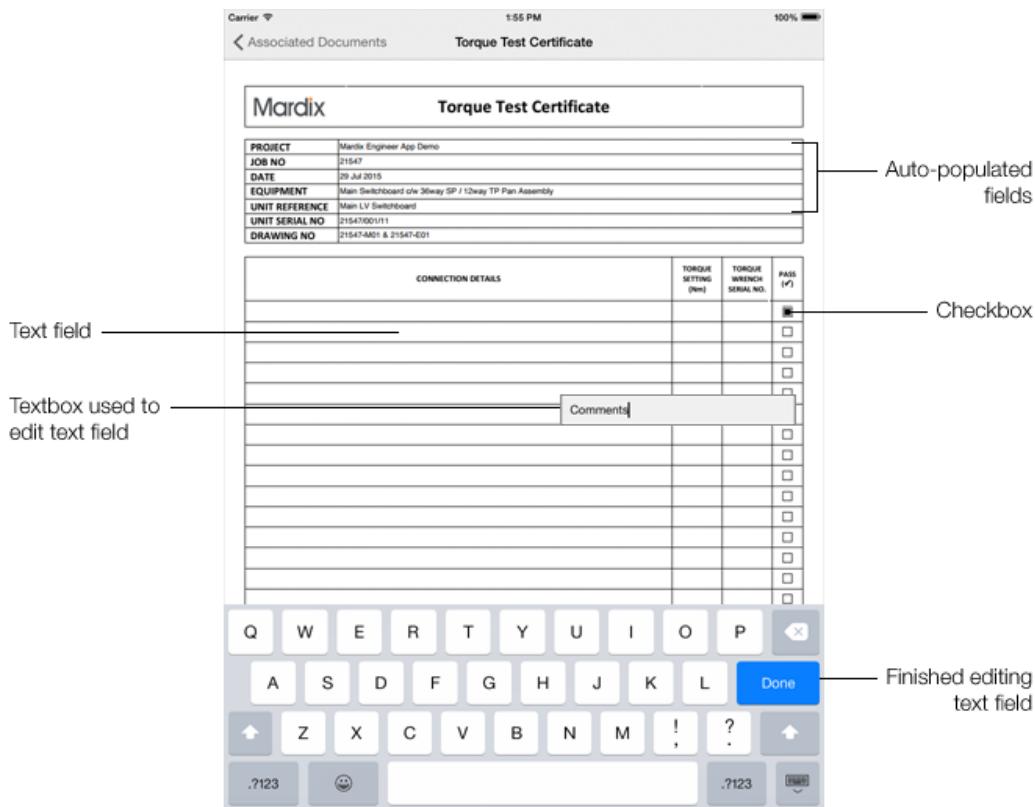
New documents can be added by tapping on the **+** icon at the top right of the screen. This will bring up the Add Associated Documents screen.



From here you can choose

- the type of document(s) to add
- the number of copies to create

To view a document in the documents list, simply tap on it.



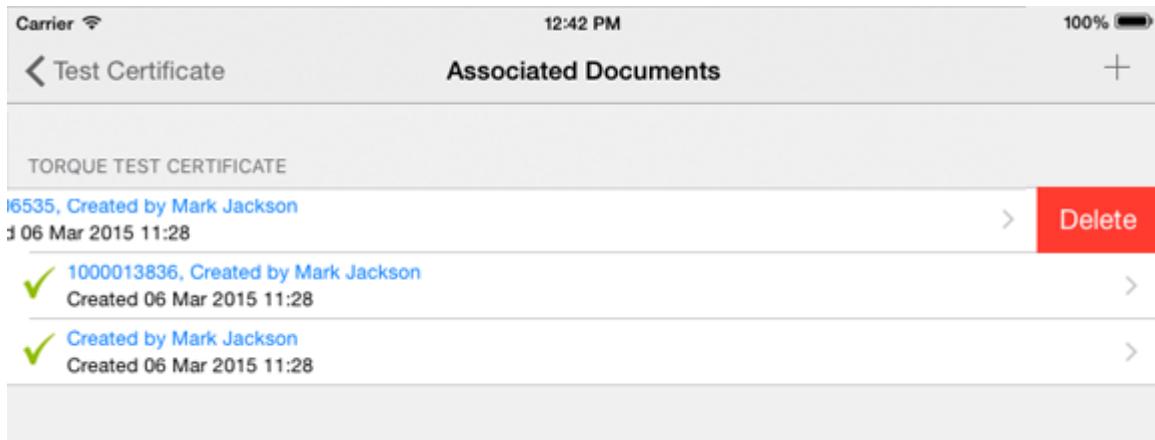
- Check boxes and radio buttons can be modified simply by tapping on them
- Tapping on a text field will bring up a floating grey text box in which you can add or modify the text, then tap on **Done** to confirm the change

Navigating back to the previous screen will save the document.



The fields at the top of each document (e.g. Serial Number, Location etc) are automatically pre-populated from Vision to begin with; however it is important to note that this information is for suggestion only, and **may not necessarily be accurate**; it is important to check these fields and update them if any of the details are incorrect, particularly if specific wording (such as Location) is required to match a method statement.

You can delete an associated Document that you have added by swiping right-to-left from the end of the screen to reveal a hidden **Delete** button.



Only edited documents are [synced up to the server](#), so any that you generate but do not edit will not be synced.

Sign Off

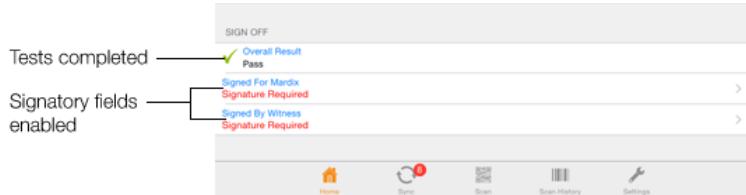
When all tests and required information is complete, a test certificate must be signed off by both the tester and a witness.

Once the test certificate has been signed off, [syncing it up](#) to the live Mardix server will complete the test session, lock it down so that it can no longer be modified, and generate the final read-only composite test document to the test team.



A test session is only set as completed when it has had both signatures added and been synced up to the server; up until that point it could still be modified and no final document will be produced, so it is very important to complete these steps.

When all required information is complete, the **Signed For Mardix** and **Signed By Witness** fields will be enabled.

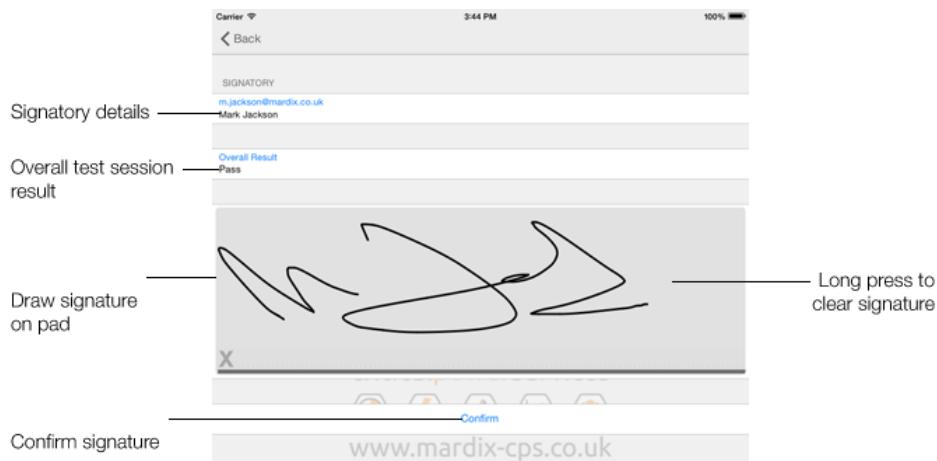


Tapping on **Signed For Mardix** will bring up a list of engineers; select the name of the tester.



You will then be taken to the sign-off screen. Verify all details are correct, then simply draw your signature on the grey pad.

If you need to redraw the signature at any point, long press on the grey pad to clear it.



Tapping **Confirm** will submit the signature and take you back to the Site Visit Report screen, with the signing engineer's name now displayed under **Signed For Mardix**.

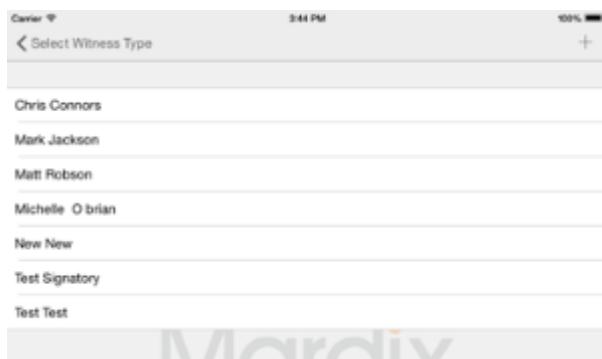


The **Signed By Witness** field can be completed by either a Mardix engineer (if this is a factory test), or a client witness (if this is a witness or site test).

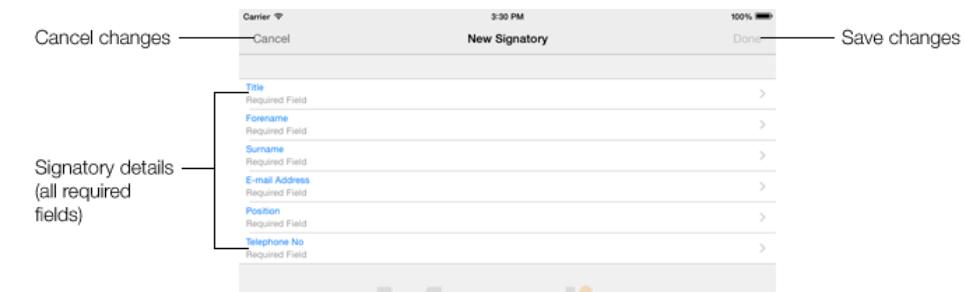
If a Mardix engineer is witnessing, select **Mardix** then follow the exact same process described above. If on the other hand a client is witnessing, select **Client**.



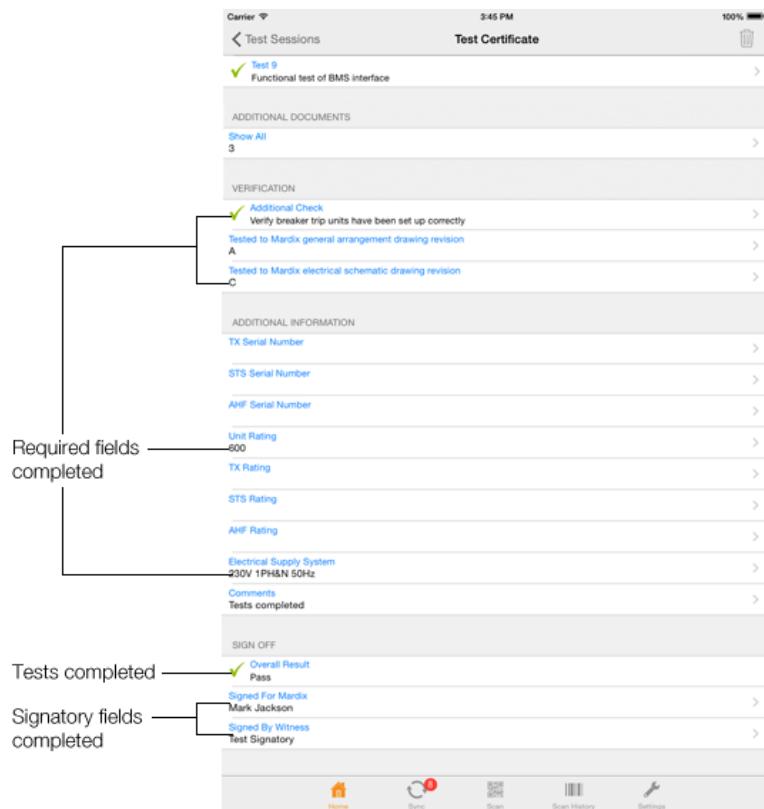
If a client witness is selected, a list of known client personnel at that branch will be displayed; selecting one will bring up the same sign-off screen as detailed above.



If the client witness is not listed, you can easily add them by tapping the + icon at the top right of the screen. This will bring up a simple form allowing you to quickly fill in their details. Once submitted, the witness will be **synced** up to the server and will then be available to select for all subsequent site visits.



Only when both signatures have been added is the site visit marked as complete.



i Once both signatures have been completed, when the test session is [synced](#) up, the final test documents will then be e-mailed to the tester and the Mardix test team. A copy of the documents will also be automatically stored on the network.

Note that completed test sessions are not brought down with a full sync, so after completion then running a download sync, those test sessions will no longer appear on the device.

Pre-Activation

Normally, [activating a test session](#) requires a wi-fi connection, as the process involves the device contacting the live Mardix server to download the test documents. However, in certain situations this may not be practical (for example if you are scheduled to test some pieces of equipment on a secure site with no wi-fi connection).

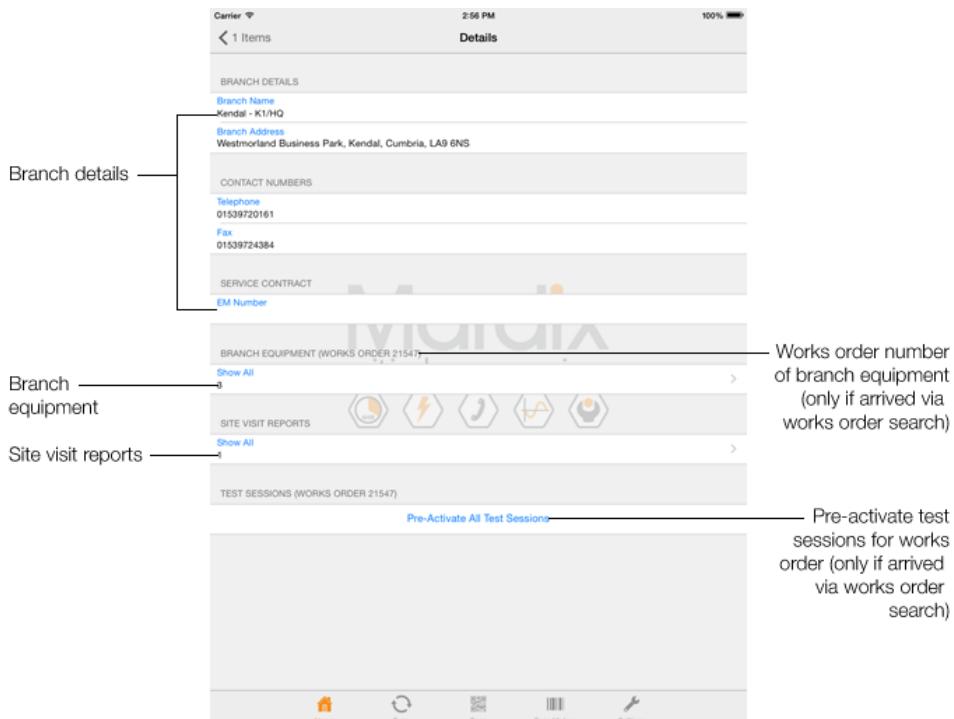
The pre-activation functionality provides a way around this problem, by allowing you to download the documents for a batch of pre-prepared test sessions in advance. The only requirements are that you know which works order number the test sessions fall under, and that the test sessions have been created but not yet activated.

Pre-Activating Test Sessions

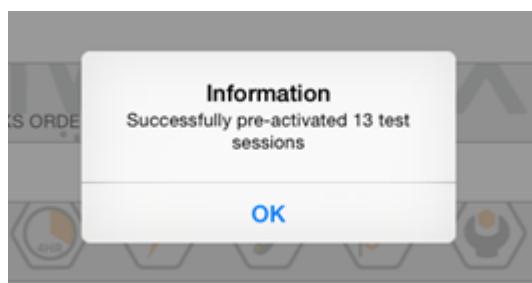


These initial preparation steps below must be performed in wi-fi range; however the actual activation of the test session does **not** then need a connection.

To begin the process, [search for the relevant works order number](#), then select any branch that is covered by that works order to bring up its [Branch Details](#) screen.



Tap **Pre-Activate All Test Sessions**. A progress icon will appear, followed eventually be a message advising that a number of test sessions have been pre-activated. From this point on you no longer need a wi-fi connection.



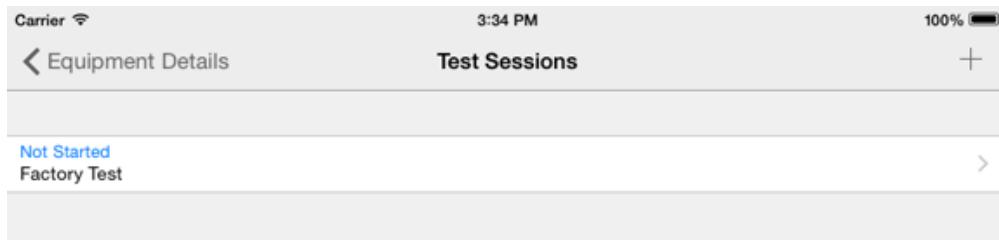
As the pre-activation process brings down the test documents for **all** test sessions under a works order that are marked as 'Not Started', it may take a while to complete.

Activating Pre-Activated Test Sessions

Once a test session has been pre-activated, it can be activated instantly without the need for a wi-fi connection.

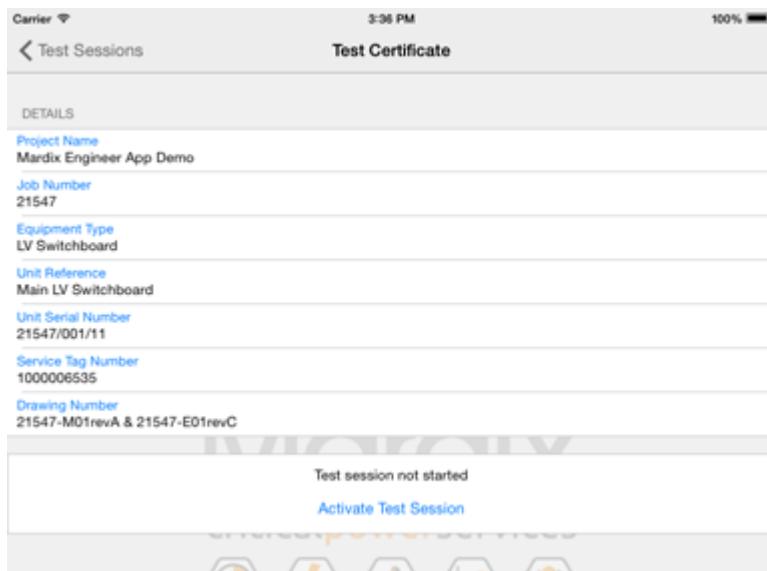
Go to the [Equipment Details](#) screen for the piece of equipment being tested, and tap on **Test Sessions**.

If all went OK with the pre-activation process, the expected test session should be displayed with a status of 'Not Started'.



Select the test session, and the same screen should be displayed [as during normal activation](#).

This time however, tapping **Activate Test Session** will bring up all the test documents instantly without any communication with the server. You can now [complete the test certificate as normal](#), then [sync up](#) once you are back in wi-fi range.



1.11.6 IBAR Installation Tests

Creating, activating and completing an IBAR Installation Test Certificate follows the same processes detailed on the following page, however further specific guidance on completing this type of test certificate can be found below.

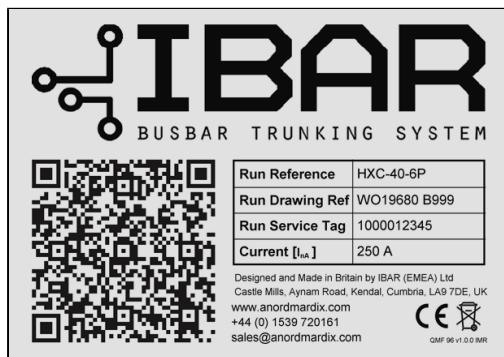
- [Creating a New Test Session](#)

- Activation
- Completing a Test Certificate

Creating an IBAR Installation Test Certificate

IBAR Installation test sessions should always be created against the master run service tag, not against one of the bar components.

A master run service tag looks like this; [scanning](#) it will bring up the run's Equipment Details screen, from where you can access its test sessions.



If you cannot find the master run service tag, you can [search](#) for the run (if you know its service tag number), or search for the [branch \(site\)](#) then you should find it listed under [Branch Equipment](#).

Main Test Session Screen

! Warning

Before creating an IBAR Installation test session, an [IBAR Installation Joint Test](#) must be completed for each individual joint pack installed on the run.

After [creating](#) and [activating](#) the IBAR Installation Test, you will see the Test Certificate screen. It is completed in two steps.

- Complete the main test certificate, by selecting **IBAR installation test** under **Tests**
- [Sign off the test session](#)

Test Certificate

The test certificate is accessed from the main test session screen by selecting **IBAR installation test** under **Tests**.

The document should be completed, then press **< Test Certificate** at the top left to save the changes and navigate back to the main test session screen.

The document should be saved regularly in this way, and does not need to be completed all at once.

The screenshot shows a mobile application interface for an 'IBAR Installation Test Certificate'. The top bar displays the time (11:59), date (Thu 2 Apr), battery level (96%), and signal strength. The title 'Test Certificate' is on the left, and 'QMF 139' is on the right. The main content area is titled 'IBAR Installation Test Certificate' and contains several sections:

- Project:** A table with fields for Job Number, Date, Run Reference, Drawing Number, Equipment Rating (with a unit of Ampere), Equipment Serial Number, and Service Tag Number.
- VISUAL INSPECTION:** A table with five rows of inspection items, each with a checkbox labeled 'PASS (X)'.
- CONTINUITY / RUN DUCTOR TEST:** Two large tables for testing conductor pairs between 'FROM' and 'TO' points. Each table has two rows for 'FROM' and 'TO' points, and multiple columns for 'LINK' and 'RESULT' measurements across various conductor pairs.
- Bottom navigation bar:** Includes icons for Home, Sync, Scan, Scan History, Time Logs, and Settings.

Note that in this document, the conductor pairs are selected from a drop-down list.

CONDUCTOR PAIR	LINK (mΩ)	RESULT (mΩ)	LINK (mΩ)
-			
PE - E			
PE - N			
PE - N2			
PE - L1			
PE - L2			
PE - L3			
E - N			
E - N2			
E - L1			
E - L2			

Sign Off

When all documents have been completed, the test session should be [signed off following the usual procedure](#).

1.11.7 IBAR Installation Joint Tests

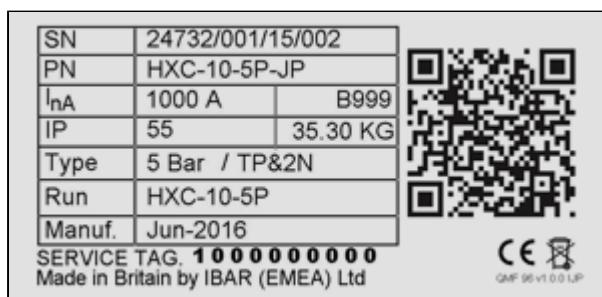
Creating, activating and completing an IBAR Installation Joint Test Certificate follows the same processes detailed on the following page, however further specific guidance on completing this type of test certificate can be found below.

- [Creating a New Test Session](#)
- [Activation](#)
- [Completing a Test Certificate](#)

Creating an IBAR Installation Joint Test Certificate

IBAR Installation test sessions should always be created against an individual joint pack on the run, not against the master run service tag.

A joint pack service tag looks like this; [scanning](#) it will bring up the joint pack's Component Details screen, from where you can access its test sessions.



If you cannot find the joint pack service tag, you can [search](#) for the joint pack (if you know its service tag number).

Setting Location In Run

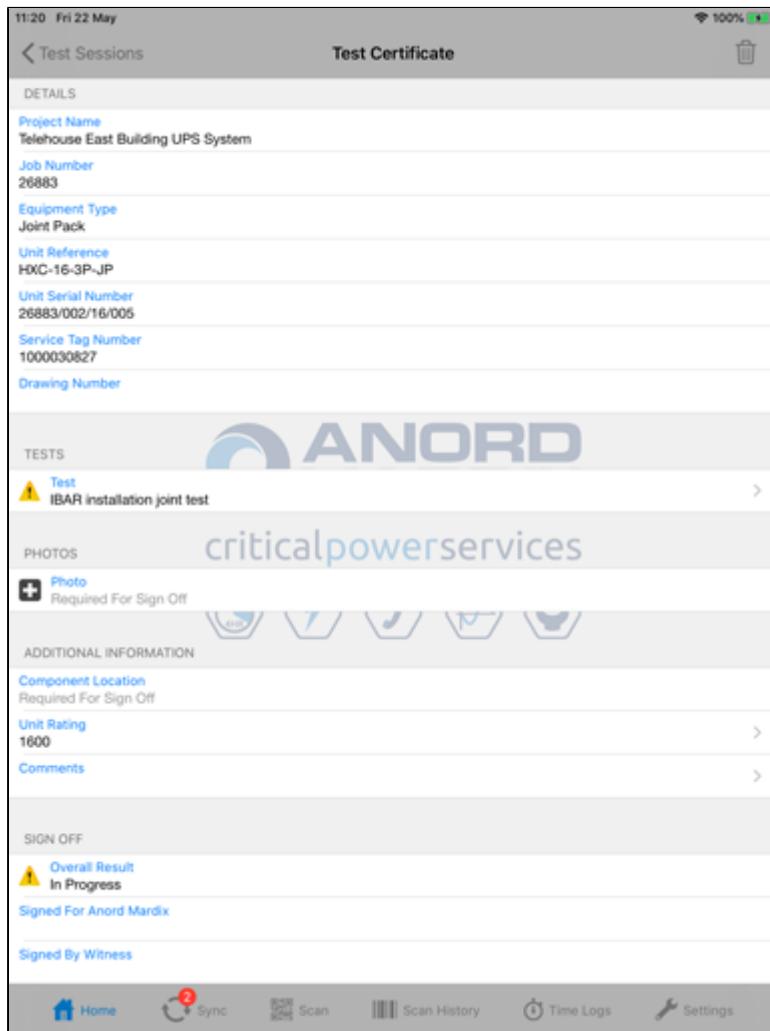
Before starting an IBAR Installation Joint Test, the component's Location in the run must be set on the [Component Details](#) screen, by updating the following field.



Main Test Session Screen

After [creating](#) and [activating](#) the IBAR Installation Joint Test, you will see the Test Certificate screen. Unlike most other types of test session, it is completed in four steps.

- Ensure the joint pack's Location has been set (this must be done by [scanning](#) the joint pack service tag, then editing the **Location** on the [Component Details](#) screen)
- Complete the main test certificate, by selecting **IBAR installation joint test** under **Tests**
- Take a photo of the joint pack
- [Sign off the test session](#)



Test Certificate

The test certificate is accessed from the main test session screen by selecting **IBAR installation joint test** under **Tests**.

The document should be completed, then press **< Test Certificate** at the top left to save the changes and navigate back to the main test session screen.

The document should be saved regularly in this way, and does not need to be completed all at once.

11:21 Fri 22 May 100% Sync

Test Certificate QMF 139_2

IBAR Installation Joint Test Certificate

Project	Telehouse East Building UPS System
Job Number	26883
Date	22 May 2020
Run Reference	
Drawing Number	26883-B02revC
Equipment Rating	1600 Ampere
Equipment Serial Number	26883/002/16/005
Service Tag Number	1000030827
Location In Run	

VISUAL INSPECTION	
Belleville washers seated correctly	PASS <input checked="" type="checkbox"/>
Nut outer heads sheared off	PASS <input checked="" type="checkbox"/>
Nuts single marked	PASS <input checked="" type="checkbox"/>
Covers installed	PASS <input checked="" type="checkbox"/>

TORQUE CHECK	
Bolts torque checked *	PASS <input checked="" type="checkbox"/>
Torque wrench ID number	

DUCTOR TEST	
	RESISTANCE ($\mu\Omega$)
Earth	
Neutral	
Neutral 2	
Phase L1	110
Phase L2	115
Phase L3	
Ductor test instrument ID number	

JOINT PHOTO	

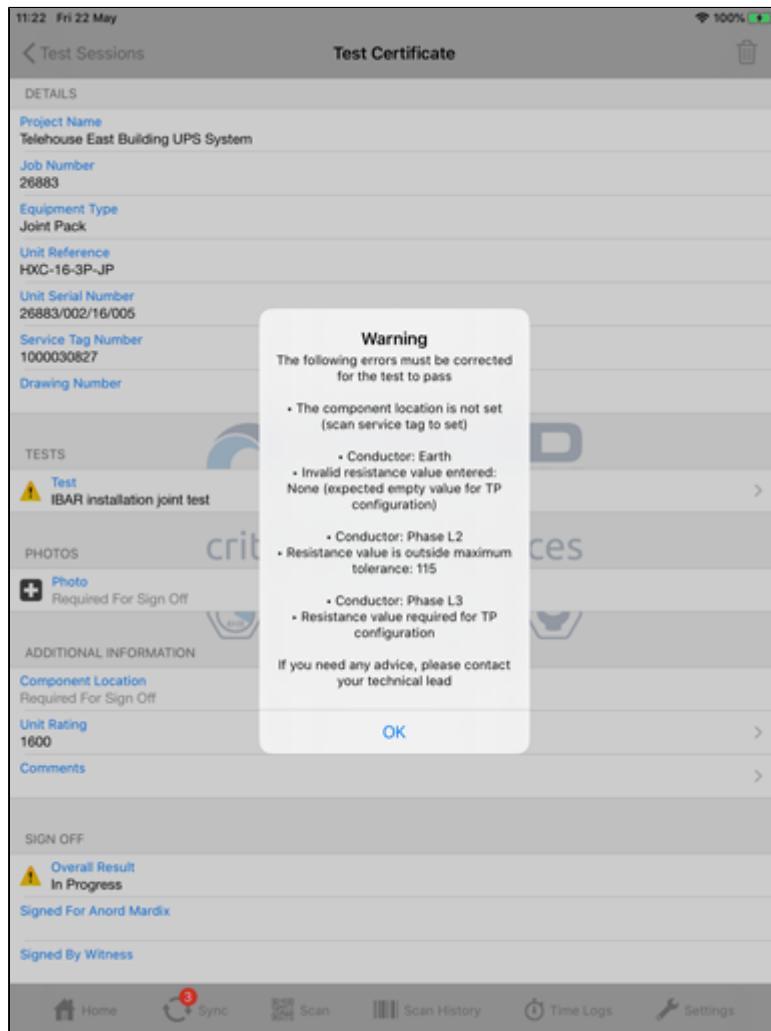
COMMENTS	

Warning: One or more required fields have not been completed.

Home Sync Scan Scan History Time Logs Settings

Upon navigating back from editing the test document, a warning will be displayed (and sign off prevented) if any of the following are detected

- joint pack location has not been set
- any required ductor resistance fields not completed, based on the bar's configuration (for example, a TP&N bar must have N/L1/L2/L3 completed)
- any ductor resistance fields have a value entered in excess of the maximum tolerance (this is set by the IBAR design team)
- any ductor resistance fields have an invalid value entered (required fields should only contain a numeric value; non-required fields should be empty or contain only a single dash)

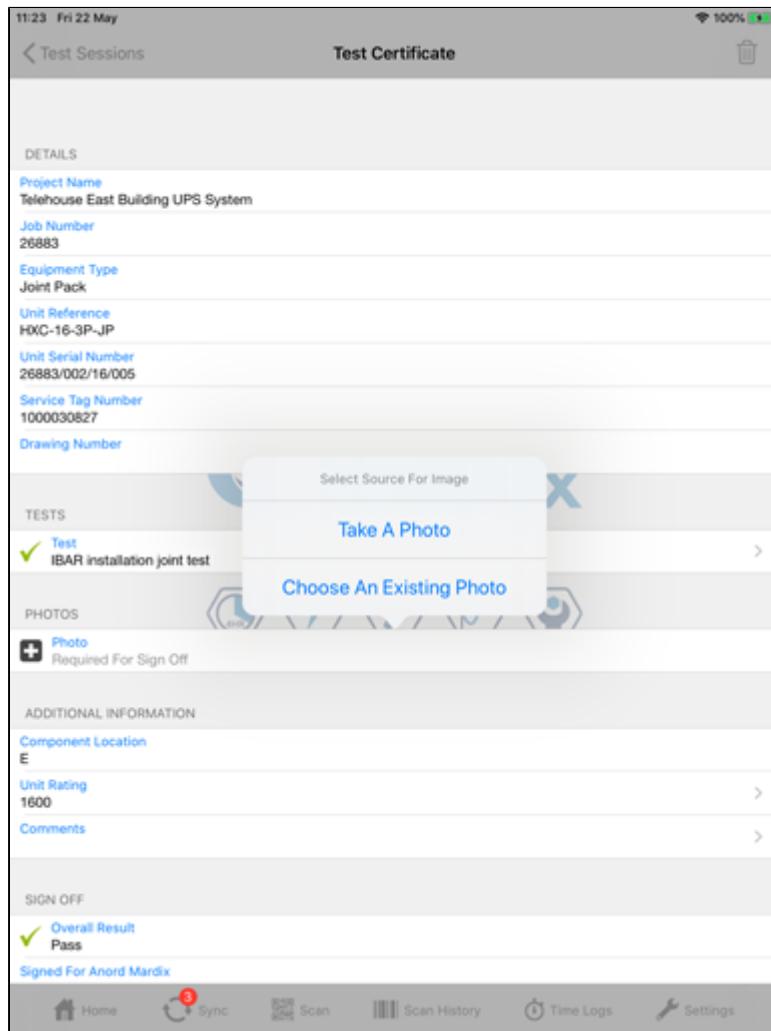


Photo

To take a photo of the joint being tested, simply press Photo then select

- **Take A Photo** to take a new photo
- **Choose An Existing Photo** if you already have a photo of the joint in your camera roll on the device

iOS Engineer App



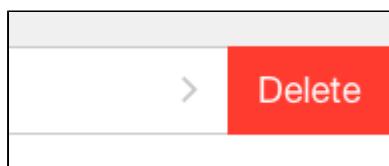
After taking a photo, select **Use Photo** to confirm selection.



After taking a photo, a thumbnail will be displayed above the **Photo** button. Tap on this to view the photo in full screen.

If you need to retake the photo, simply tap the **Photo** button again to take a new photo which will overwrite the old one.

If you need to delete the photo, swipe right-to-left from the end of the thumbnail row, which will reveal a hidden **Delete** button.

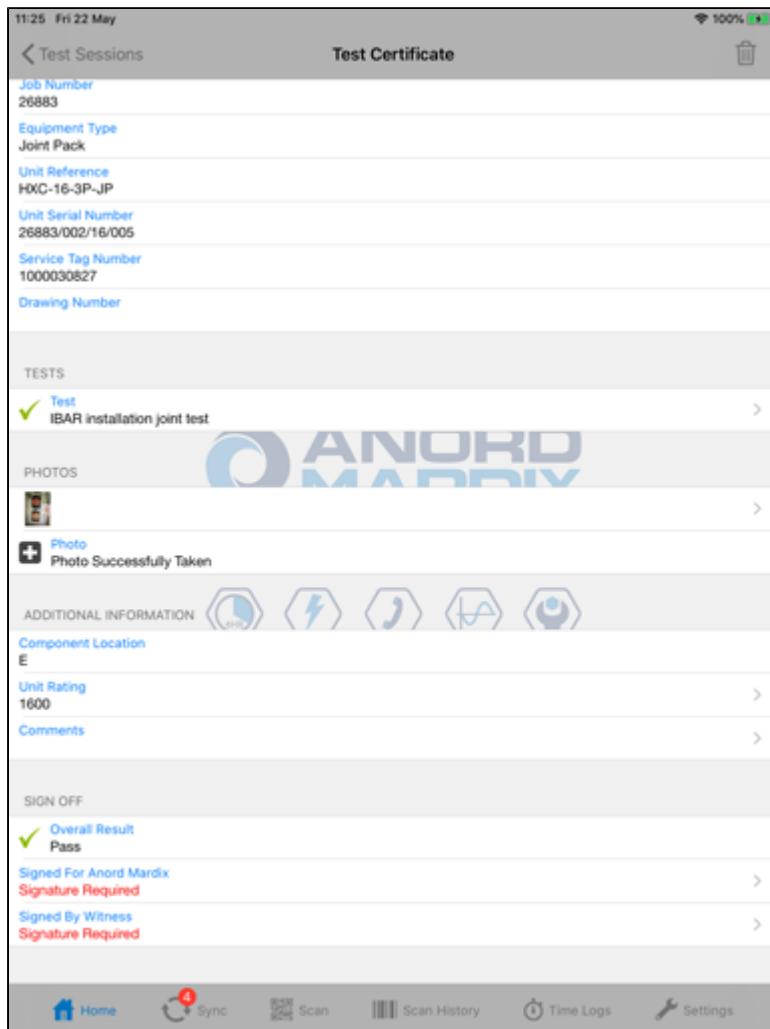


Sign Off

When all documents have been completed, the test session should be [signed off following the usual procedure](#).

Sign off will be allowed when

- joint pack location has been set
- photo has been taken
- test certificate has been completed in full
- all required ductor resistance fields (based on the bar's configuration) are completed, with all value within tolerance
- all non-required ductor resistance fields (based on the bar's configuration) are empty or contain only a single dash



Photography Not Allowed On Site

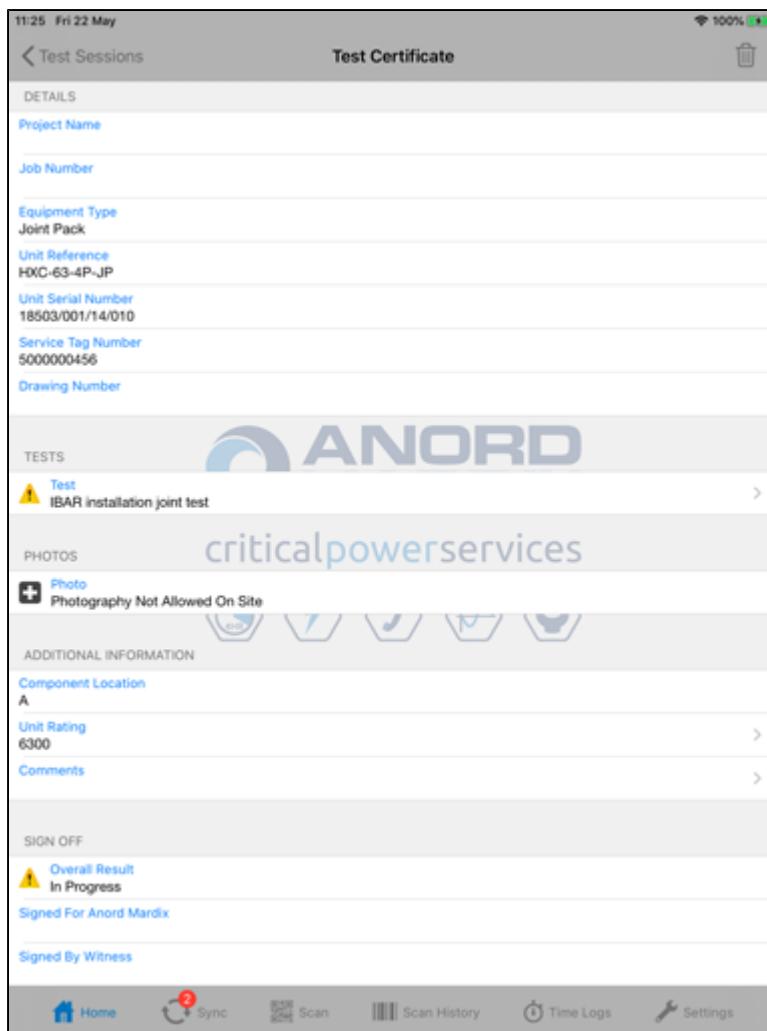
The only exception to the above steps is where the works order has Photography Not Allowed On Site set.

This is set by the project manager in the main Vision web interface.

One of works only	<input type="checkbox"/>
Photography Not Allowed On Site	<input checked="" type="checkbox"/>
iControl Systems Administrator	Select

For any joint tests on works orders for which photography is not permitted, a warning will be displayed and the **Photo** button disabled.

In this scenario, a photo is not required for sign off of the test session.



1.11.8 RESINBAR Installation Joint Tests

Creating, activating and completing an RESINBAR Installation Joint Test Certificate follows the same processes detailed on the following page, however further specific guidance on completing this type of test certificate can be found below.

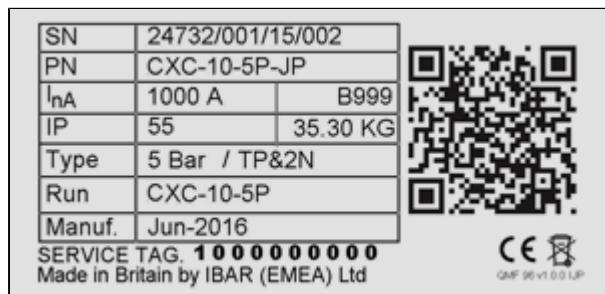
- [Creating a New Test Session](#)

- Activation
- Completing a Test Certificate

Creating a RESINBAR Installation Joint Test Certificate

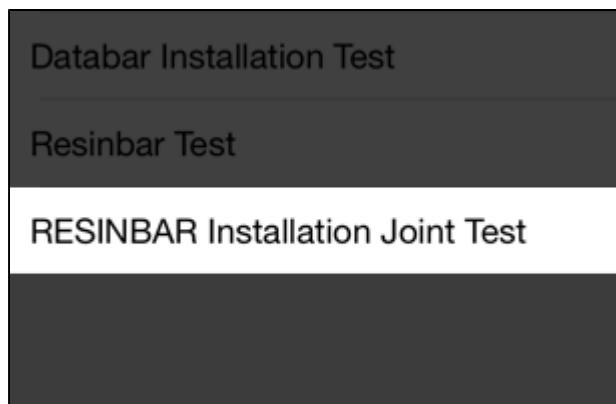
RESINBAR Installation test sessions should always be created against an individual joint pack on the run, not against the master run service tag.

A joint pack service tag looks like this; [scanning](#) it will bring up the joint pack's Component Details screen, from where you can access its test sessions.



If you cannot find the joint pack service tag, you can [search](#) for the joint pack (if you know its service tag number).

When creating the test session, **RESINBAR Installation Joint Test** should be selected.



Setting Location In Run

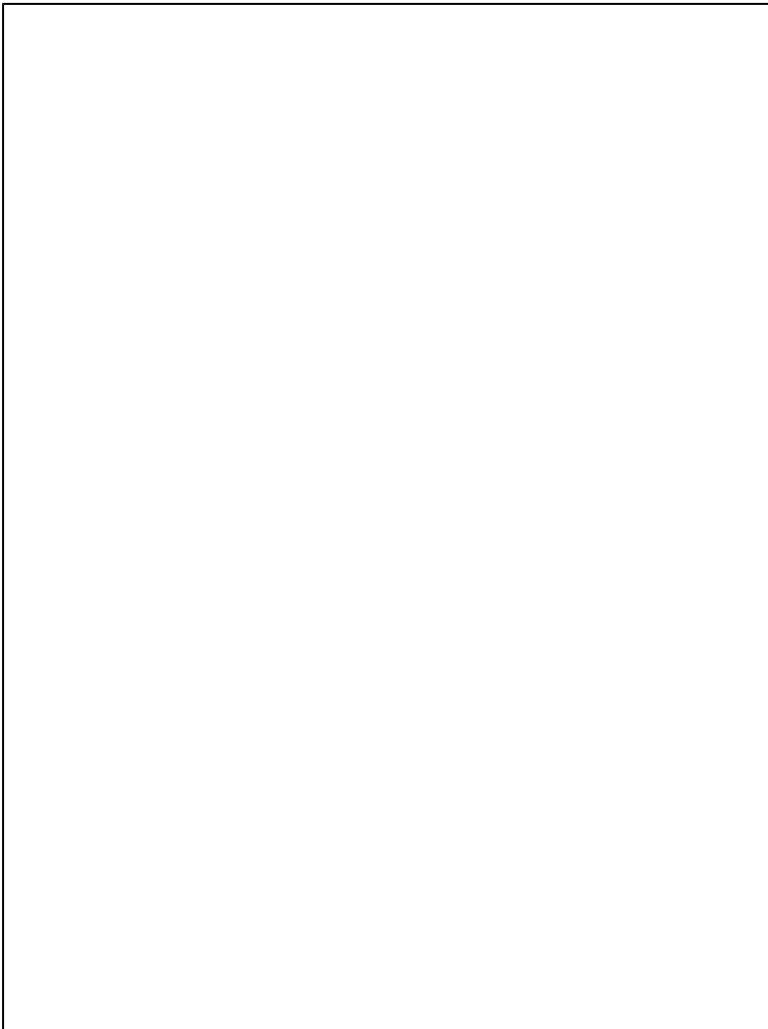
Before starting a RESINBAR Installation Joint Test, the component's Location in the run must be set on the [Component Details](#) screen, by updating the following field.



Main Test Session Screen

After [creating](#) and [activating](#) the RESINBAR Installation Joint Test, you will see the Test Certificate screen. Unlike most other types of test session, it is completed in four steps.

- Ensure the joint pack's Location has been set (this must be done by [scanning](#) the joint pack service tag, then editing the **Location** on the [Component Details](#) screen)
- Complete the main test certificate, by selecting **RESINBAR installation joint test** under **Tests**
- Take a photo of the joint pack
- [Sign off the test session](#)

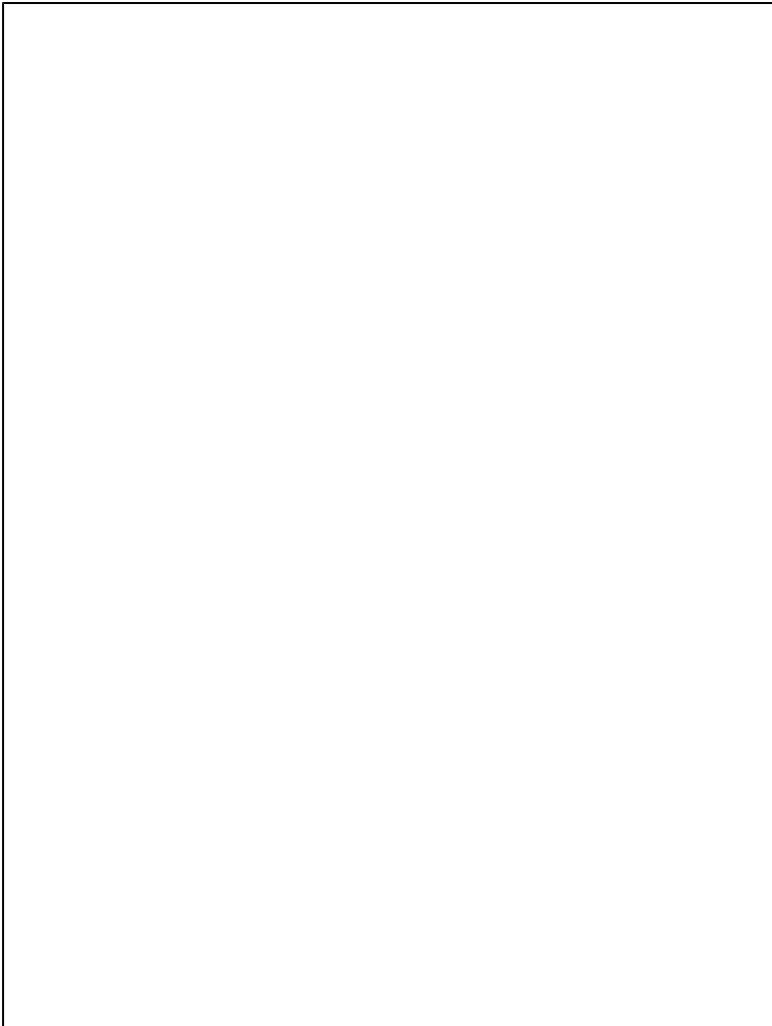


Test Certificate

The test certificate is accessed from the main test session screen by selecting **RESINBAR installation joint test** under **Tests**.

The document should be completed, then press < **Test Certificate** at the top left to save the changes and navigate back to the main test session screen.

The document should be saved regularly in this way, and does not need to be completed all at once.



08:36 Mon 8 Feb 64%

Test Certificate QMF 143_2

Resinbar Installation Joint Test Certificate

CURE & DE-MOULD INSPECTION

Check casting has fully cured ready for de-moulding	PASS <input checked="" type="checkbox"/>
Date & time all moulds removed [DD/MM/YY 00:00]	<input type="checkbox"/>
Check casting for quality and remove sharp edges	<input type="checkbox"/>

AS DE-MOULDED & FINISHED CAST PHOTO [To show top surface, from same angle as the 'AS CAST' photo)

COMMENTS (Log any imperfections, NOTIFY SUPERVISOR IMMEDIATELY of any abnormalities)

Apply completed Anord Mardix sign off label to a visible surface **ANORD MARDIX** **COMPLETE (R)**

Name:	<input type="checkbox"/>
-------	--------------------------

Date of completion & sign for by signatories (DD/MM/YY)

All the above tests have been successful:

Signed for Anord Mardix IBAR (EMEA) Ltd:	Signed for Witness:
Name:	Name:

Home Sync Scan Scan History Time Logs Settings

Note in particular the **Date of completion & sign for by signatories** date field towards the bottom of the document.

Apply completed Anord Mardix sign off label to a visible surface **ANORD MARDIX** **COMPLETE (R)**

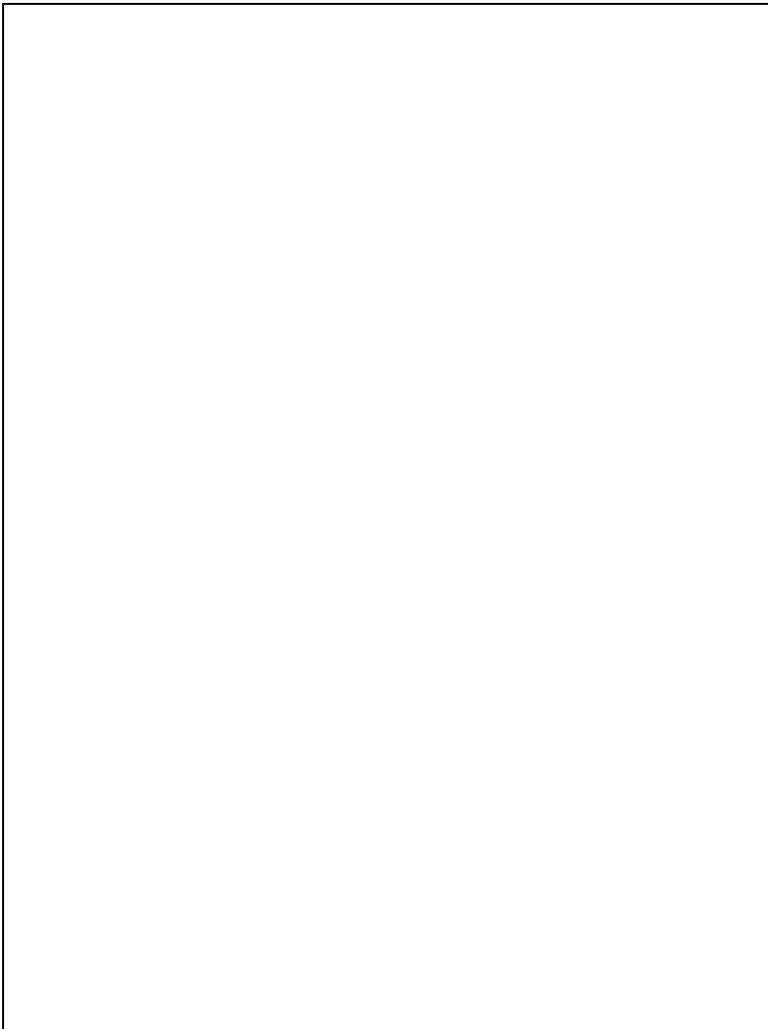
Date of completion & sign for by signatories (DD/MM/YY)

All the above tests have been successful:

Signed for Anord Mardix IBAR (EMEA) Ltd:	Signed for Witness:
--	---------------------

Upon navigating back from editing the test document, a warning will be displayed (and sign off prevented) if any of the following are detected

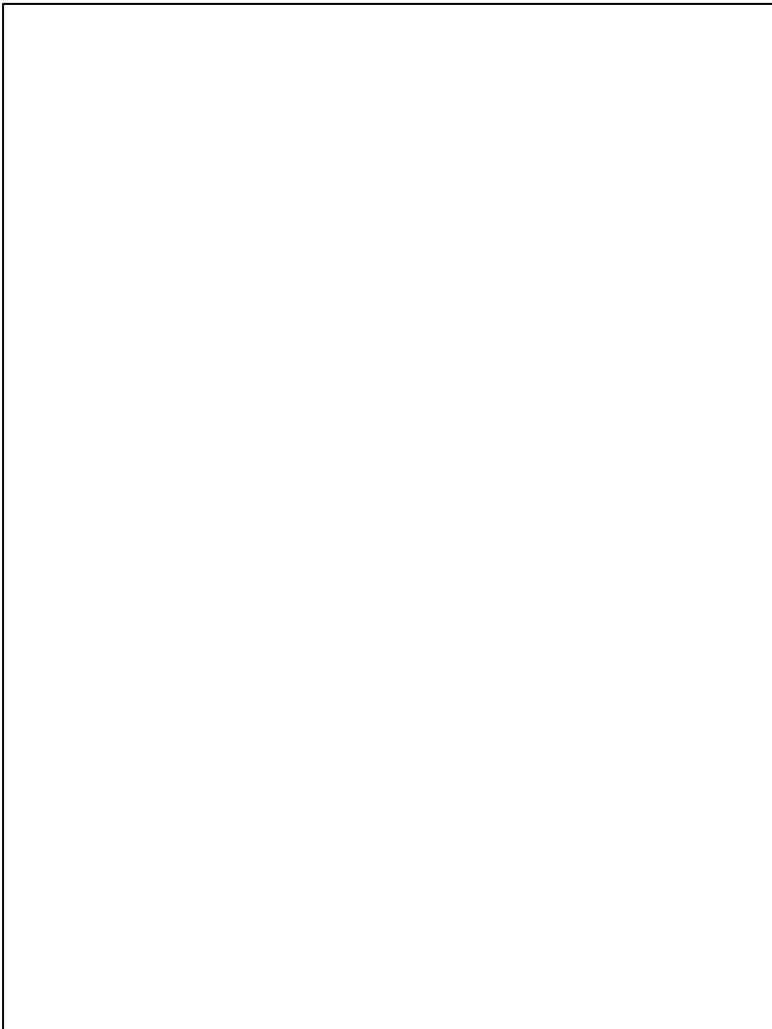
- joint pack location has not been set



Photo

To take a photo of the joint being tested, simply press Photo then select

- **Take A Photo** to take a new photo
- **Choose An Existing Photo** if you already have a photo of the joint in your camera roll on the device



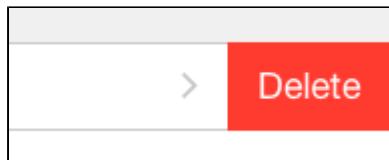
After taking a photo, select **Use Photo** to confirm selection.



After taking a photo, a thumbnail will be displayed above the **Photo** button. Tap on this to view the photo in full screen.

If you need to retake the photo, simply tap the **Photo** button again to take a new photo which will overwrite the old one.

If you need to delete the photo, swipe right-to-left from the end of the thumbnail row, which will reveal a hidden **Delete** button.

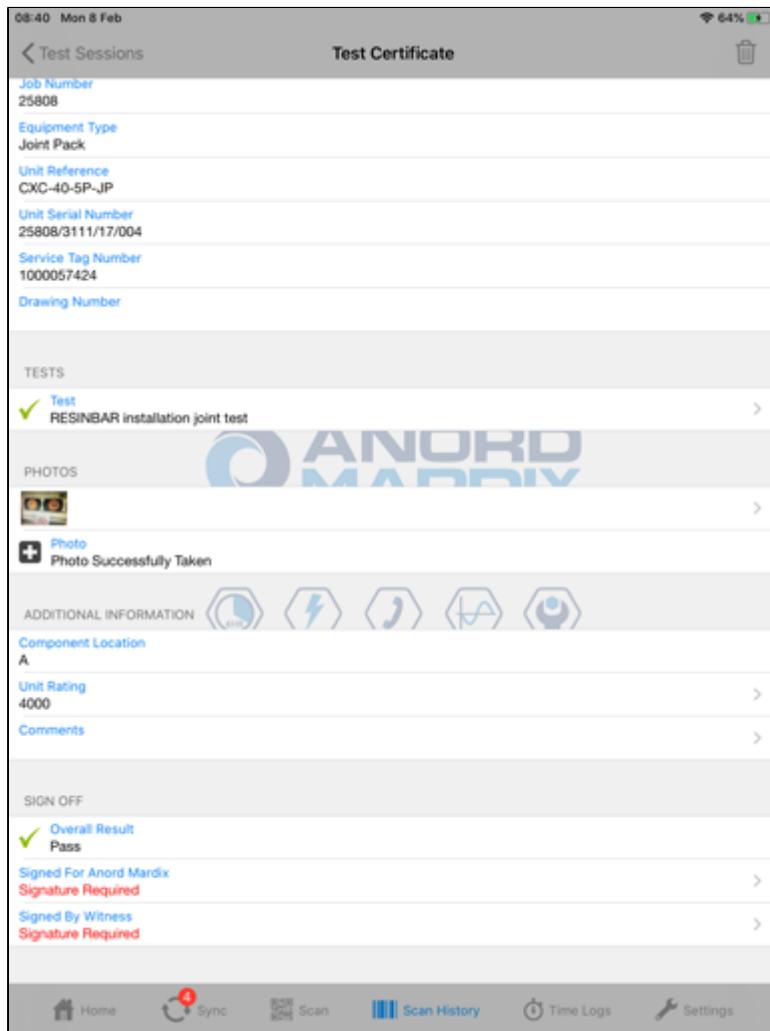


Sign Off

When all documents have been completed, the test session should be [signed off following the usual procedure](#).

Sign off will be allowed when

- joint pack location has been set
- photo has been taken
- test certificate has been completed in full, in particular with all checkboxes selected



Photography Not Allowed On Site

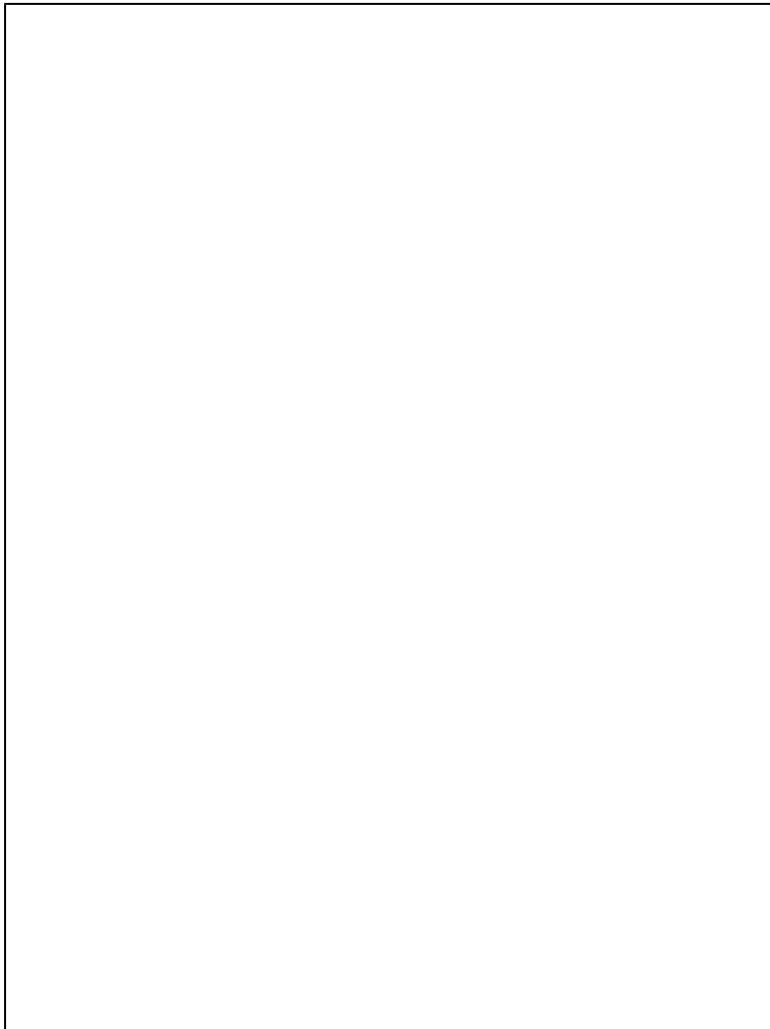
The only exception to the above steps is where the works order has Photography Not Allowed On Site set.

This is set by the project manager in the main Vision web interface.

One of works only	<input type="checkbox"/>
Photography Not Allowed On Site	<input checked="" type="checkbox"/>
iControl Systems Administrator	Select

For any joint tests on works orders for which photography is not permitted, a warning will be displayed and the **Photo** button disabled.

In this scenario, a photo is not required for sign off of the test session.

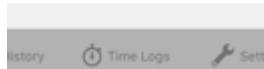


1.12 Time Logs

The Time Logs section allows time to be logged relating to site works.

1.12.1 Time Logs Screen

The Time Logs section can be accessed from the **Time Logs** icon on the tab bar at the bottom of the screen.



On the main Time Logs screen, any existing time log will be listed most recent first. These can be edited by simply selecting them.

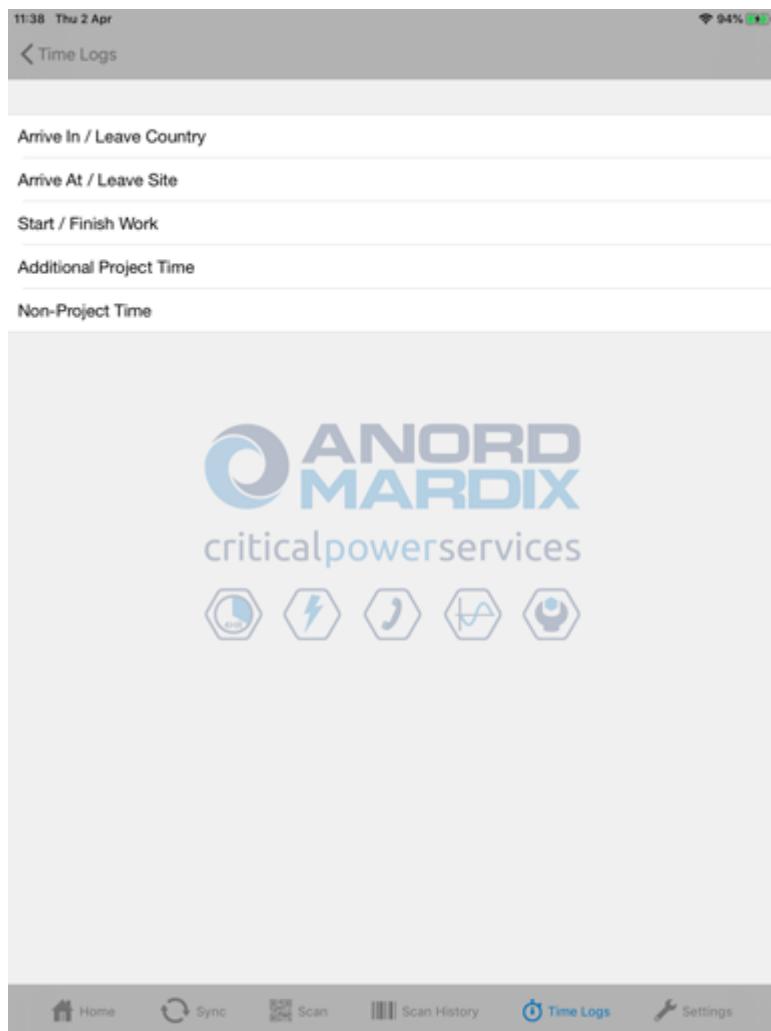
New time logs can be added by using the + icon at the top right of the screen.

1.12.2 Adding a New Time Log

When adding a new time log, you can create one of the following types of log.

Each type is explained in more details using the links below.

- [Arrive In / Leave Country](#)
- [Arrive At / Leave Site](#)
- [Start / Finish Work](#)
- [Additional Project Time](#)
- [Non-Project Time](#)



1.12.3 Deleting a Time Log

Any unsynced time logs can be deleted by swiping right-to-left at the end of the screen to reveal the **Delete** button.

1.12.4 Syncing Up Time Logs

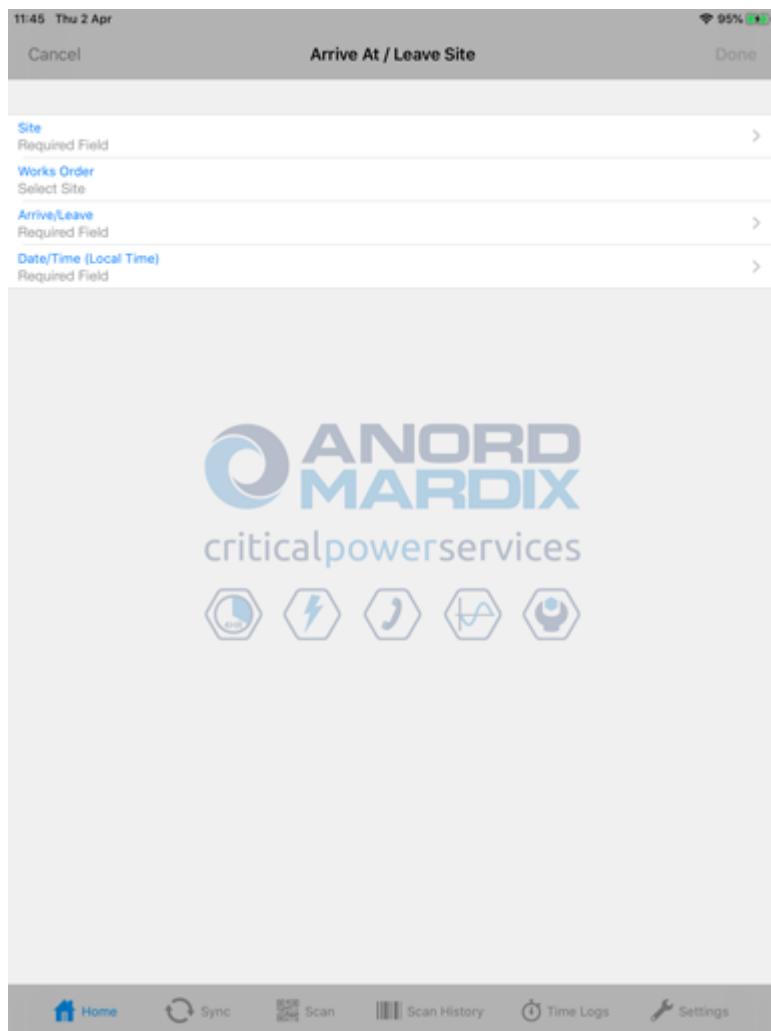
Time logs can be synced up using the [Upload Sync](#).

1.12.5 Arriving At or Leaving Site

When logging arrival or departure from a site, you will need to enter the following information.

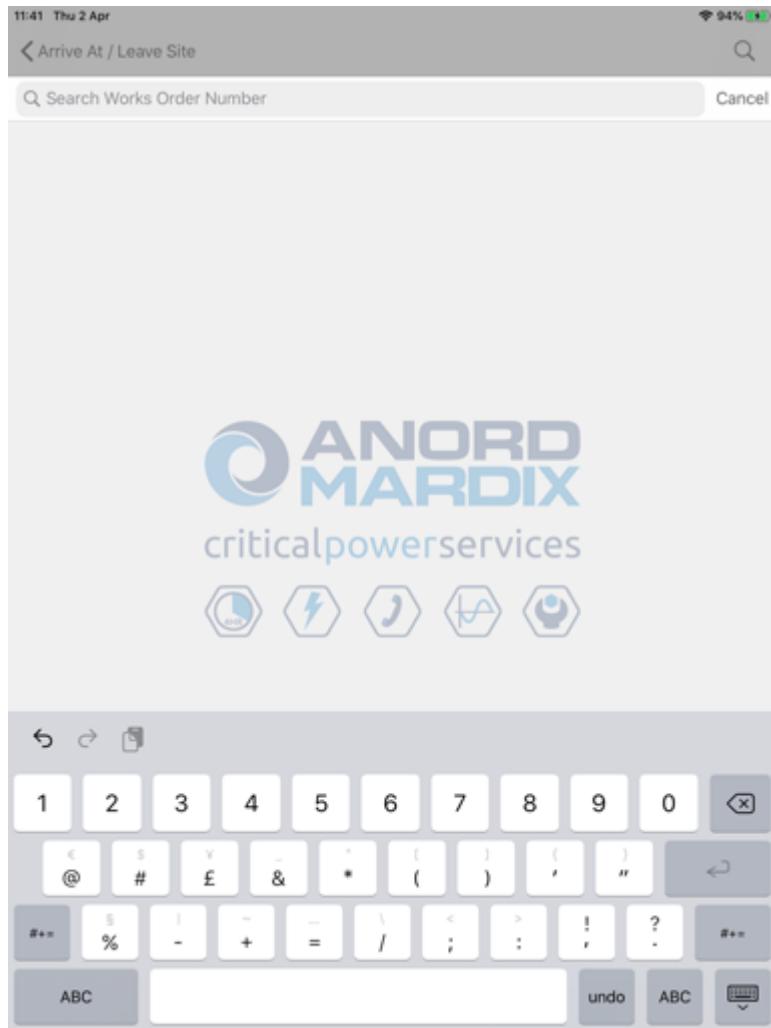
- Site
- Arrive or Leave
- Date and Time

iOS Engineer App



The Site is selected from a lookup.

Search for the works order number in the search box (e.g. 30465), then tap the magnifying glass icon.

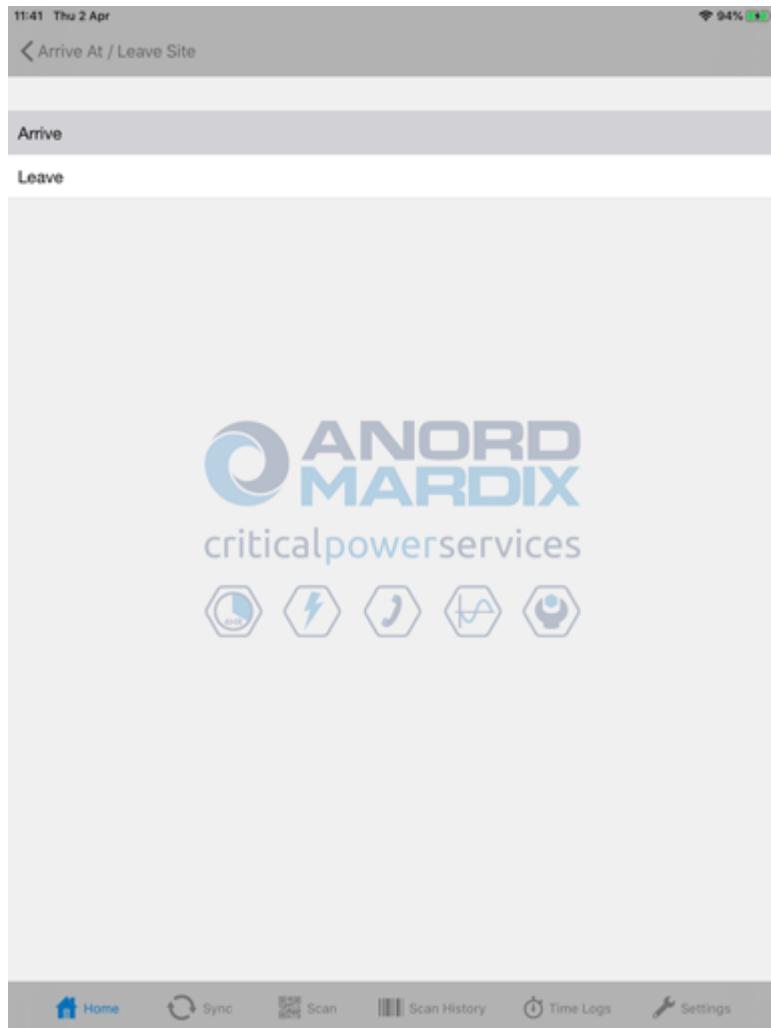


From the list of results, select the site under the relevant works order.

Note that selecting a site will also set the works order for the time log.

Arrive or Leave is selected from a list.

iOS Engineer App



The Date and Time is selected from a date picker. This will default to the current date and time.

After setting the date and time, use the back arrow at the top left of the screen to confirm.

iOS Engineer App



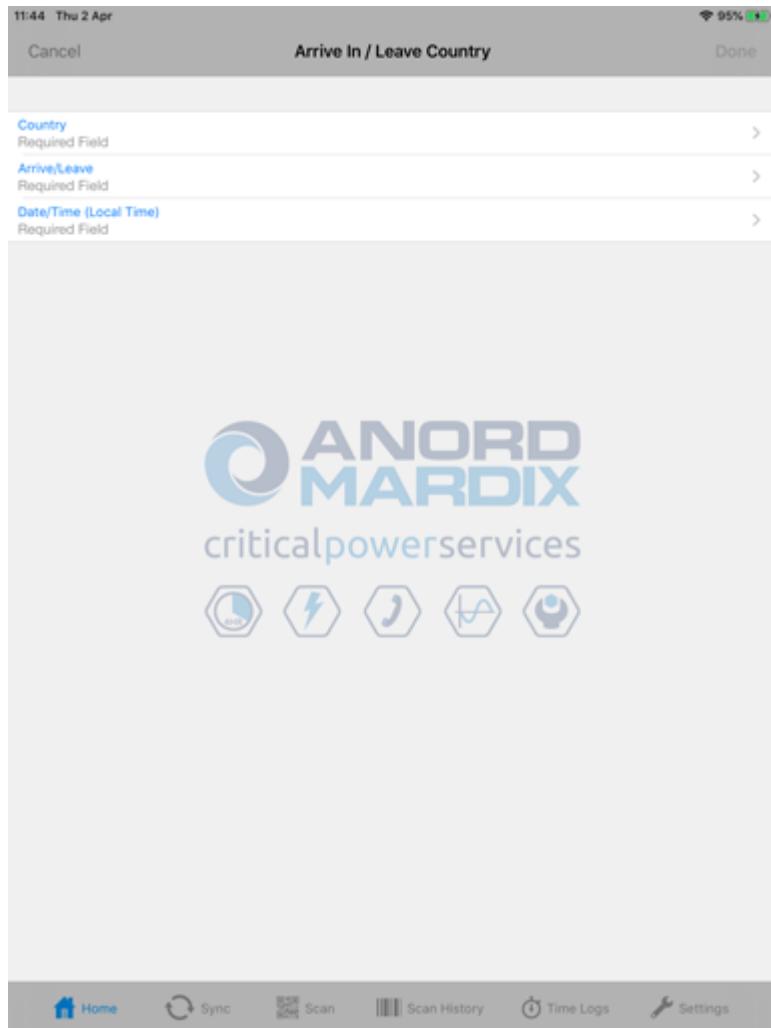
When all required information has been set, press **Done** to save the time log.

1.12.6 Arriving In or Leaving a Country

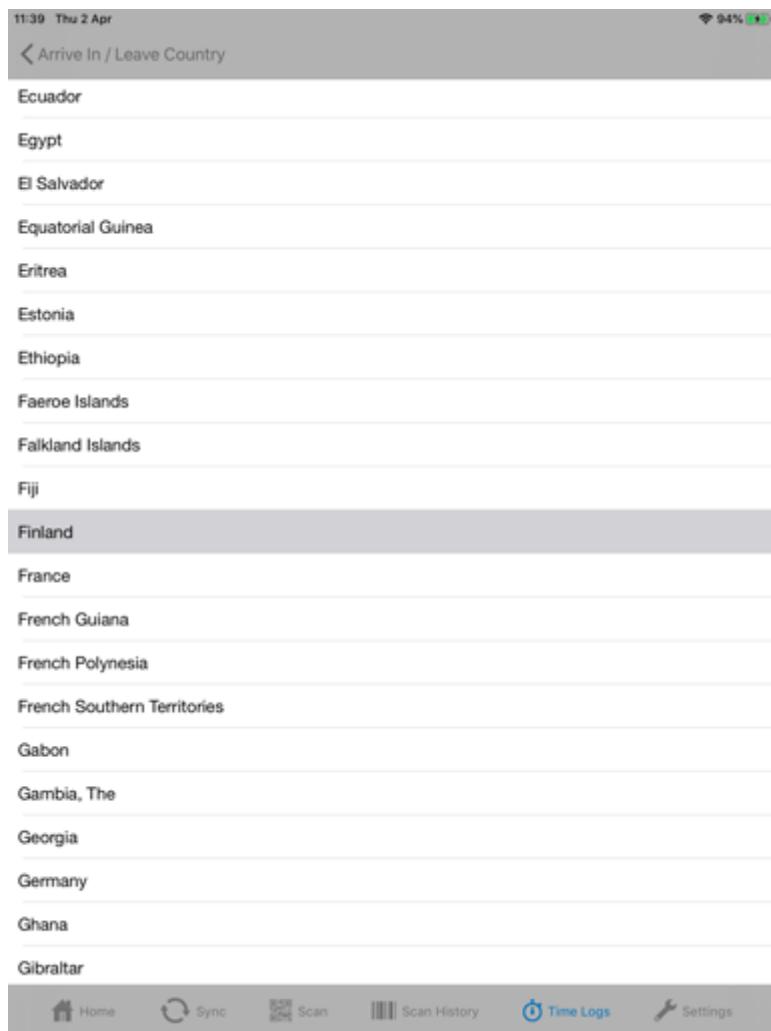
When logging arrival or departure from a country, you will need to enter the following information.

- Country
- Arrive or Leave
- Date and Time

iOS Engineer App

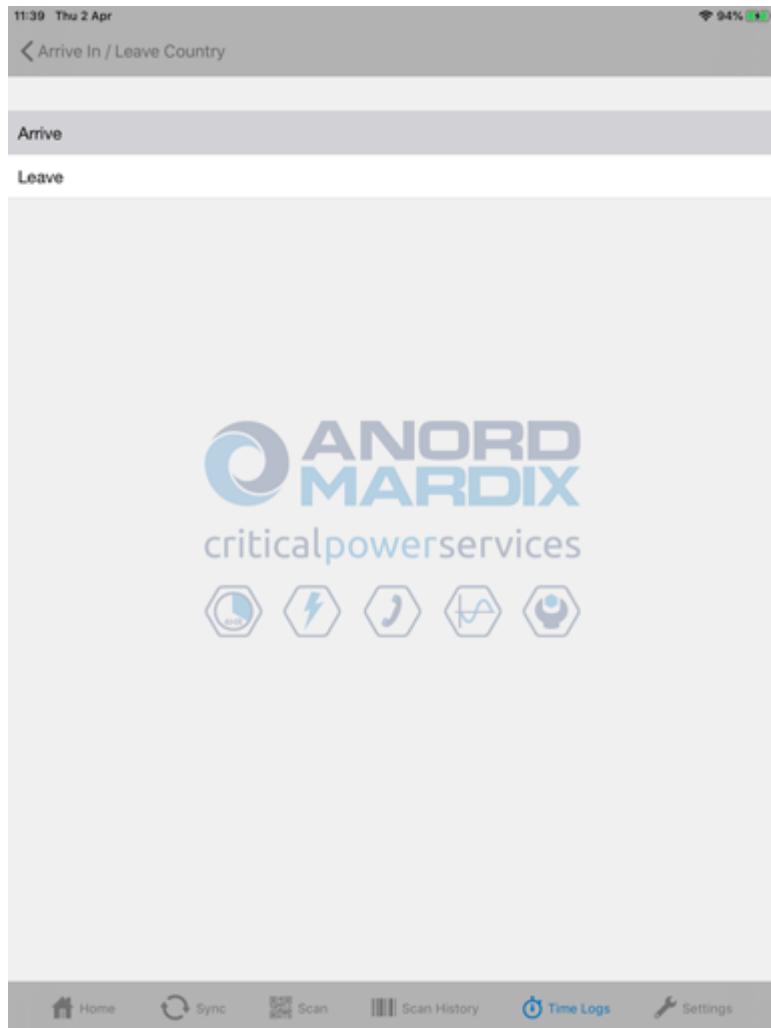


The Country is selected from a list, presented in alphabetical order.



Arrive or Leave is selected from a list.

iOS Engineer App



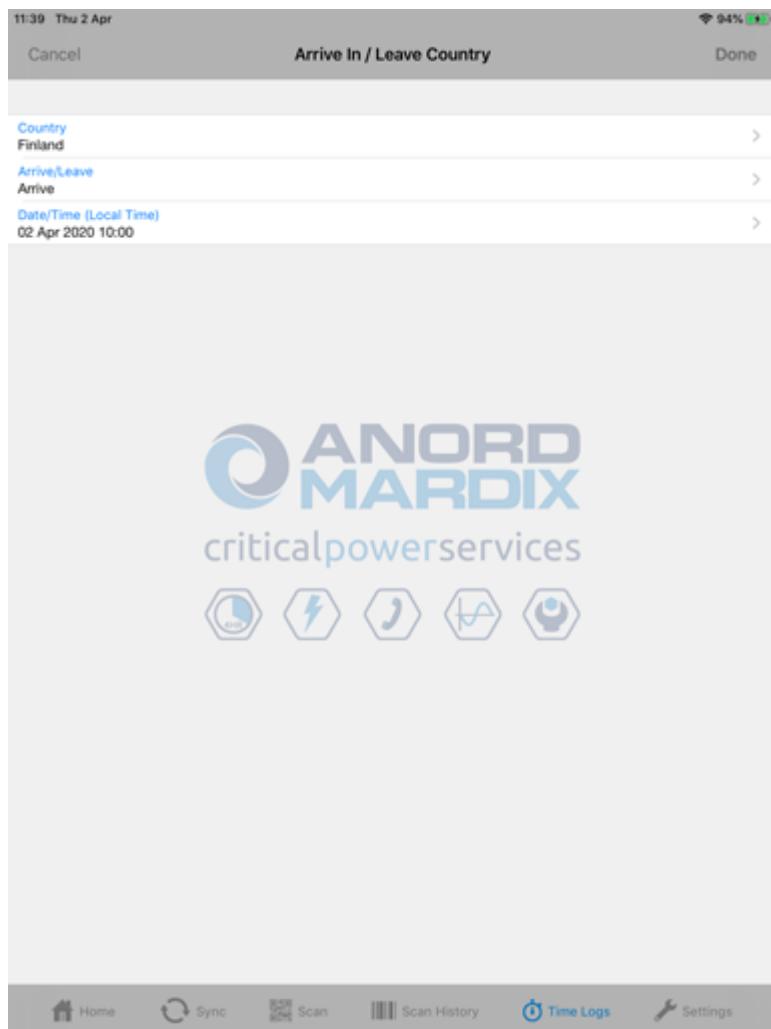
The Date and Time is selected from a date picker. This will default to the current date and time.

After setting the date and time, use the back arrow at the top left of the screen to confirm.

iOS Engineer App



When all required information has been set, press **Done** to save the time log.

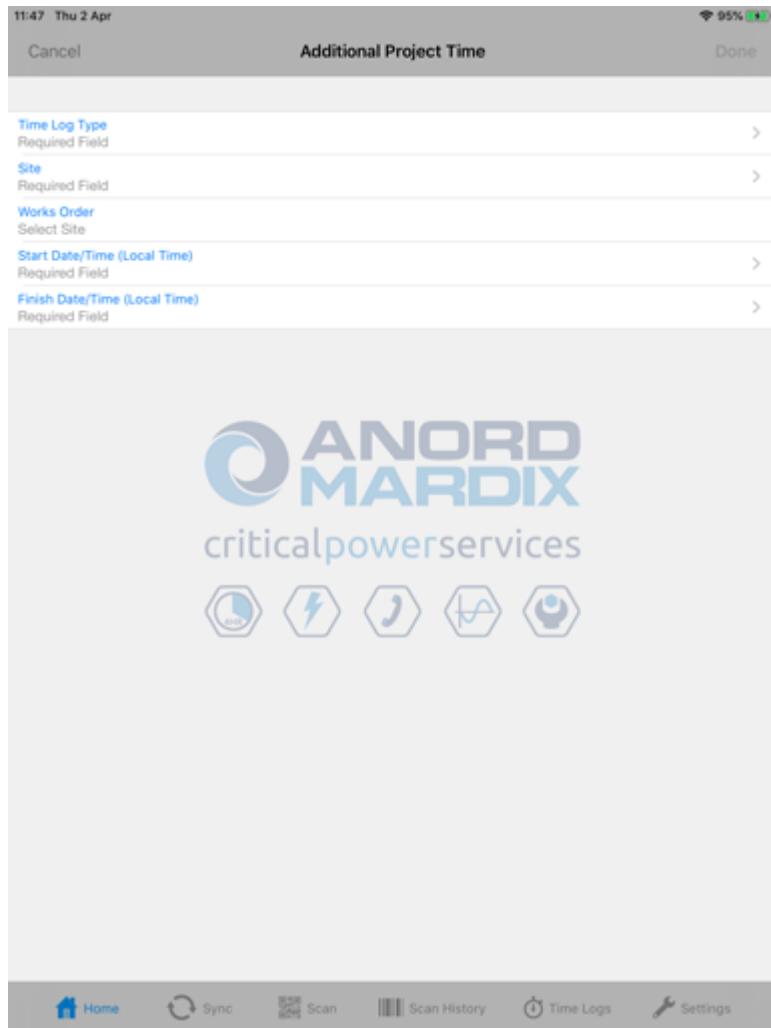


1.12.7 Logging Additional Project Time

When logging additional project time, you will need to enter the following information.

- Time Log Type
- Site
- Start Date and Time
- Finish Date and Time

iOS Engineer App



The type of time log is selected from a list.

For additional project time, the options are

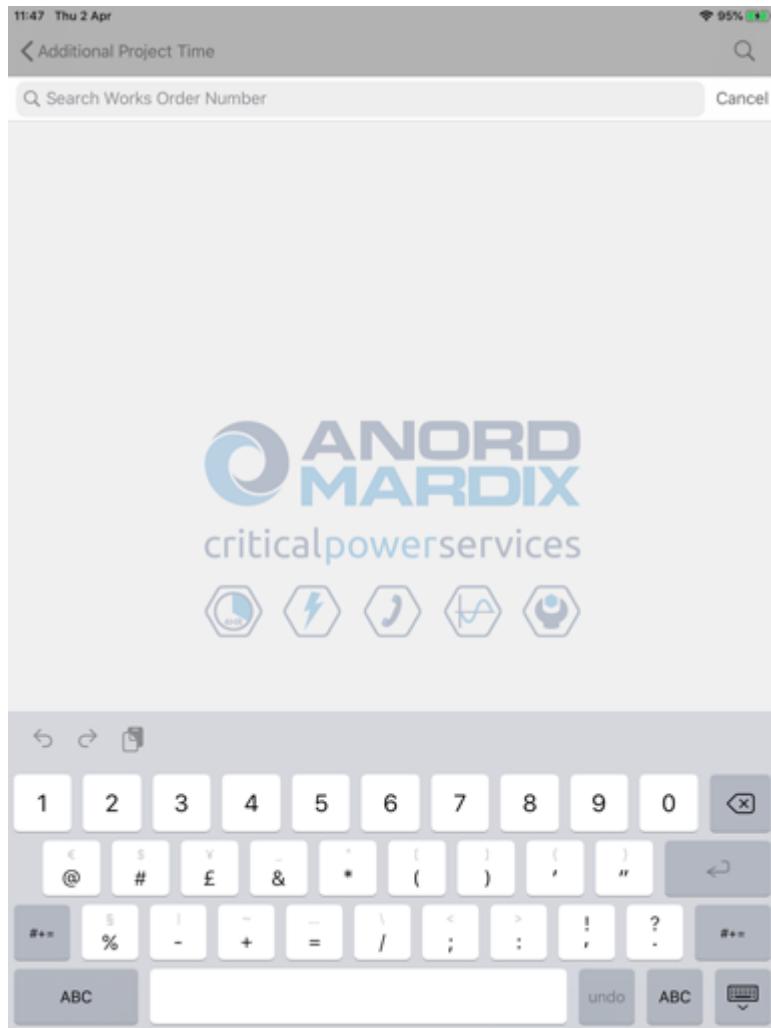
- Travel Time
- Paid Rest Day
- Paid Hours For No Work
- Site Subs (UK)
- Site Subs (Outside UK)
- Site Closed

iOS Engineer App



The Site is selected from a lookup.

Search for the works order number in the search box (e.g. 30465), then tap the magnifying glass icon.



From the list of results, select the site under the relevant works order.

Note that selecting a site will also set the works order for the time log.

Both the Start Date and Time and Finish Date and Time are selected from a date picker. This will default to the current date and time.

After setting the date and time, use the back arrow at the top left of the screen to confirm.

iOS Engineer App

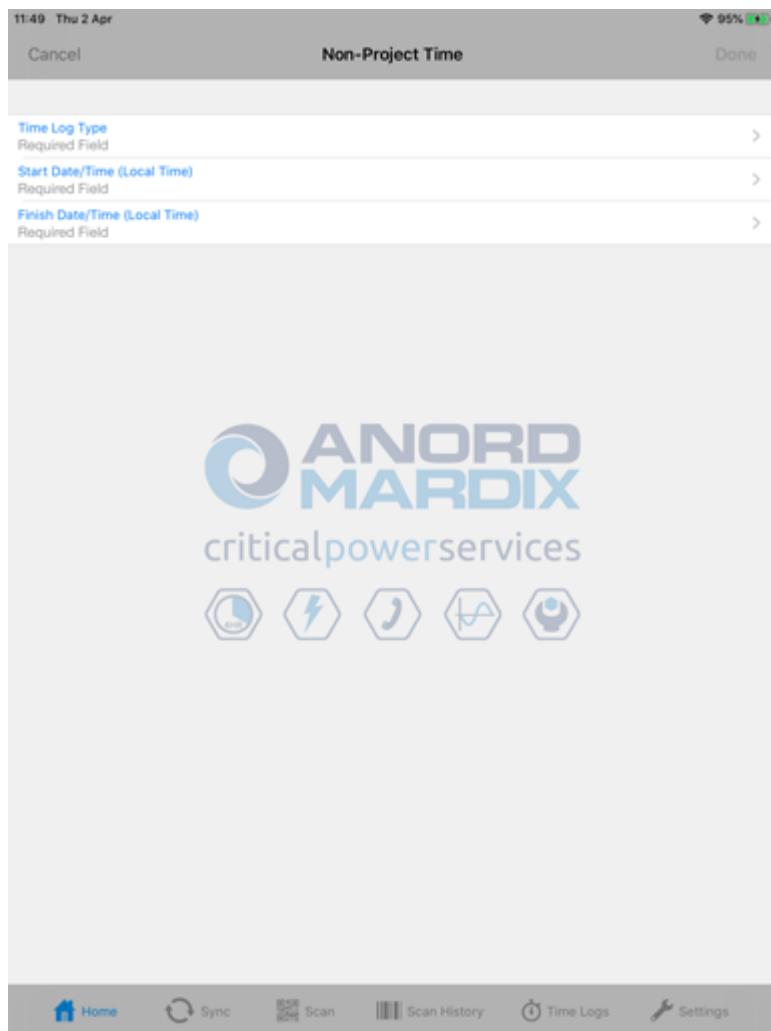


When all required information has been set, press **Done** to save the time log.

1.12.8 Logging Non-Project Time

When logging non-project time, you will need to enter the following information.

- Time Log Type
- Start Date and Time
- Finish Date and Time

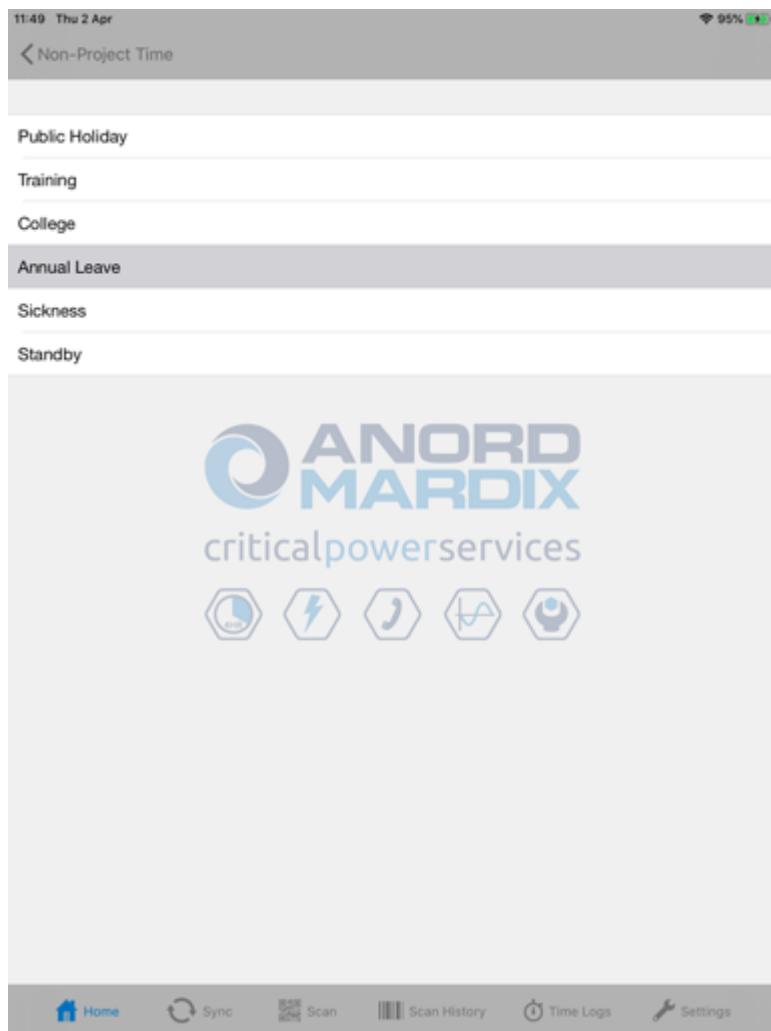


The type of time log is selected from a list.

For non-project time, the options are

- Public Holiday
- Training
- College
- Annual Leave
- Sickness
- Standby

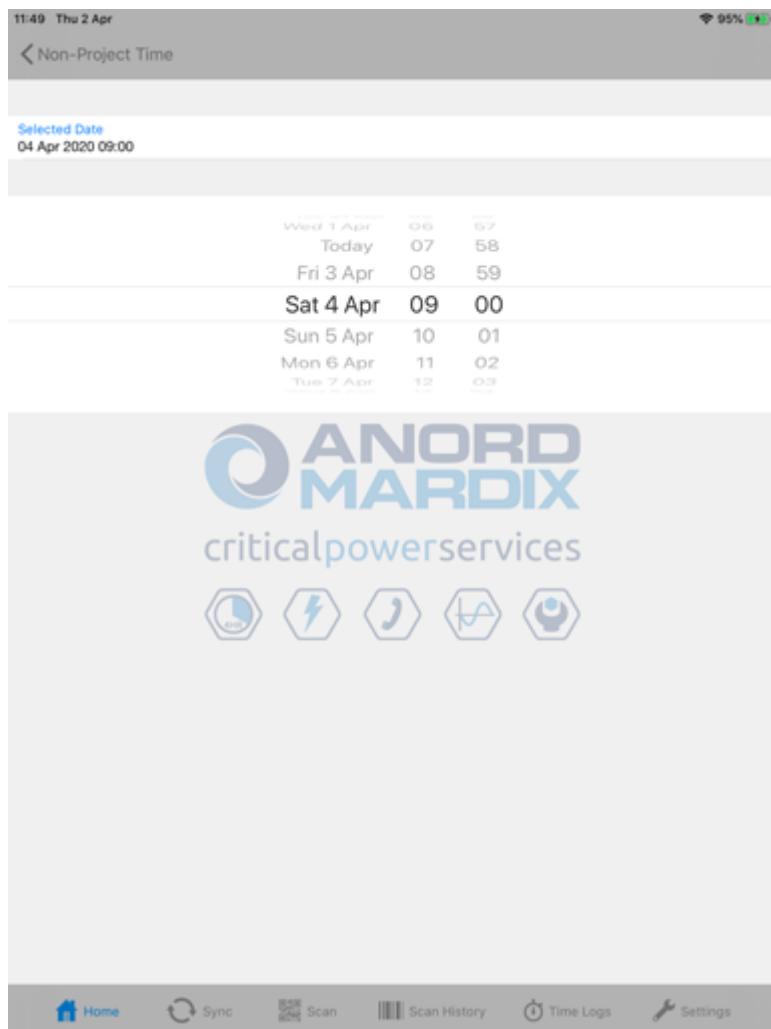
iOS Engineer App



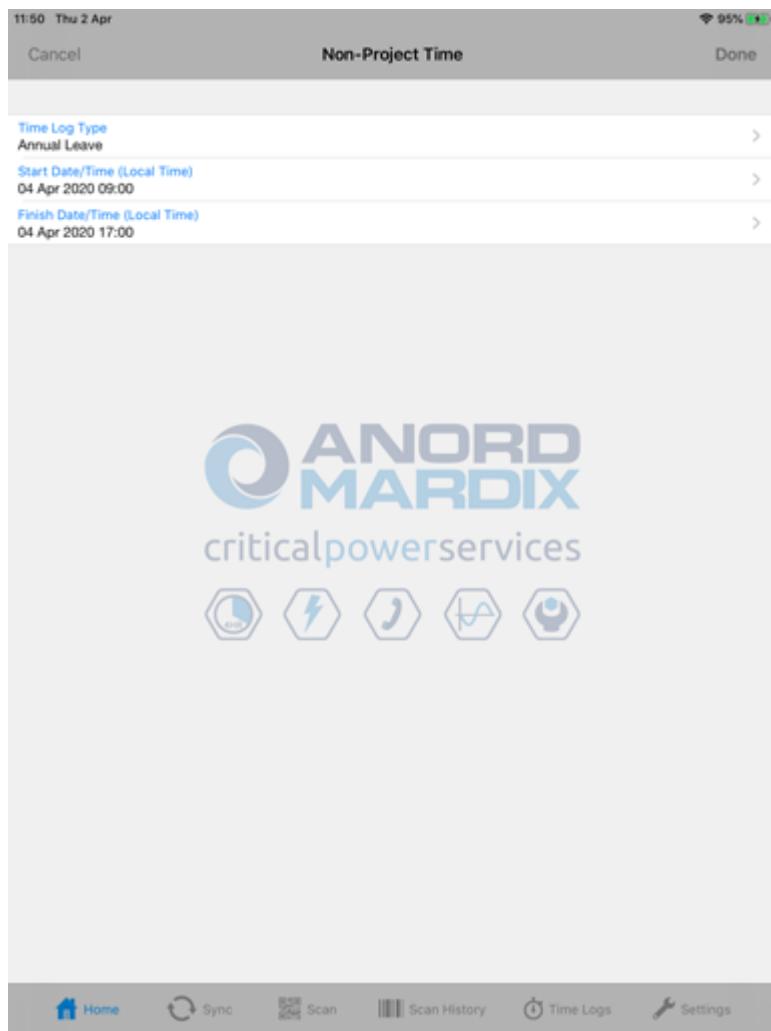
Both the Start Date and Time and Finish Date and Time are selected from a date picker. This will default to the current date and time.

After setting the date and time, use the back arrow at the top left of the screen to confirm.

iOS Engineer App



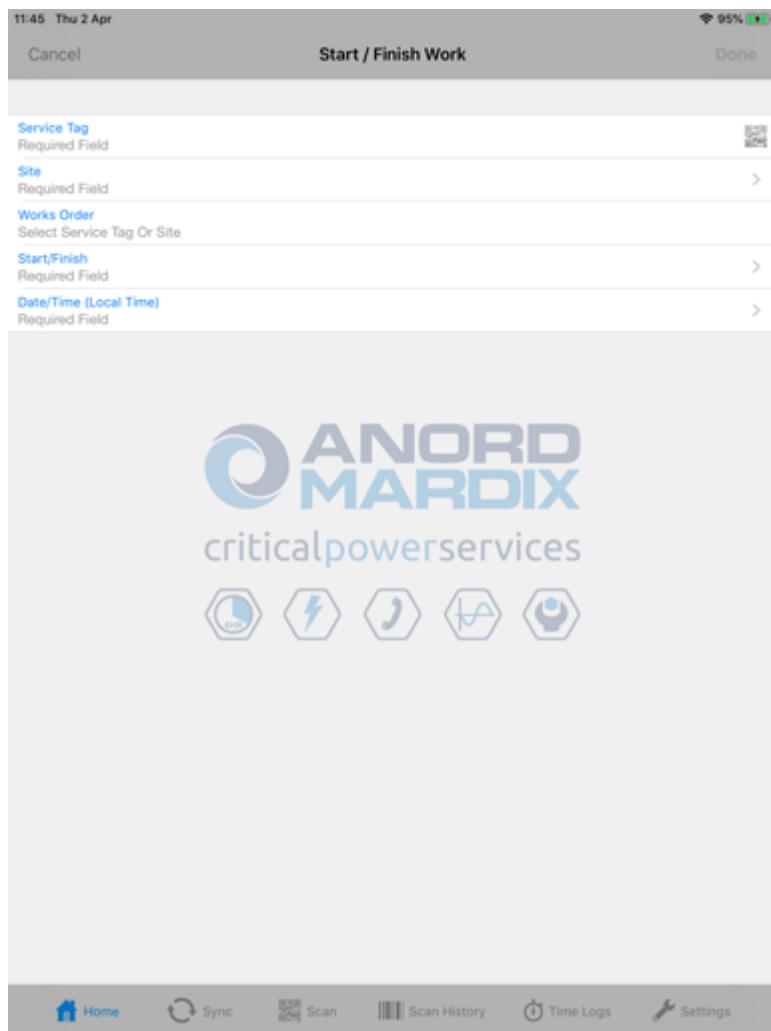
When all required information has been set, press **Done** to save the time log.



1.12.9 Logging Work

When logging starting or finishing work, you will need to enter the following information.

- Service Tag (by scanning), or Site if no service tag is available
- Arrive or Leave
- Date and Time



After selecting Service Tag, simply scan the service tag to select the equipment item or component.

Note that selecting scanning a service tag will also set the site and works order for the time log.



If no service tag is available to scan, you can simply log work against the site instead. The Site is selected from a lookup.

Search for the works order number in the search box (e.g. 30465), then tap the magnifying glass icon.



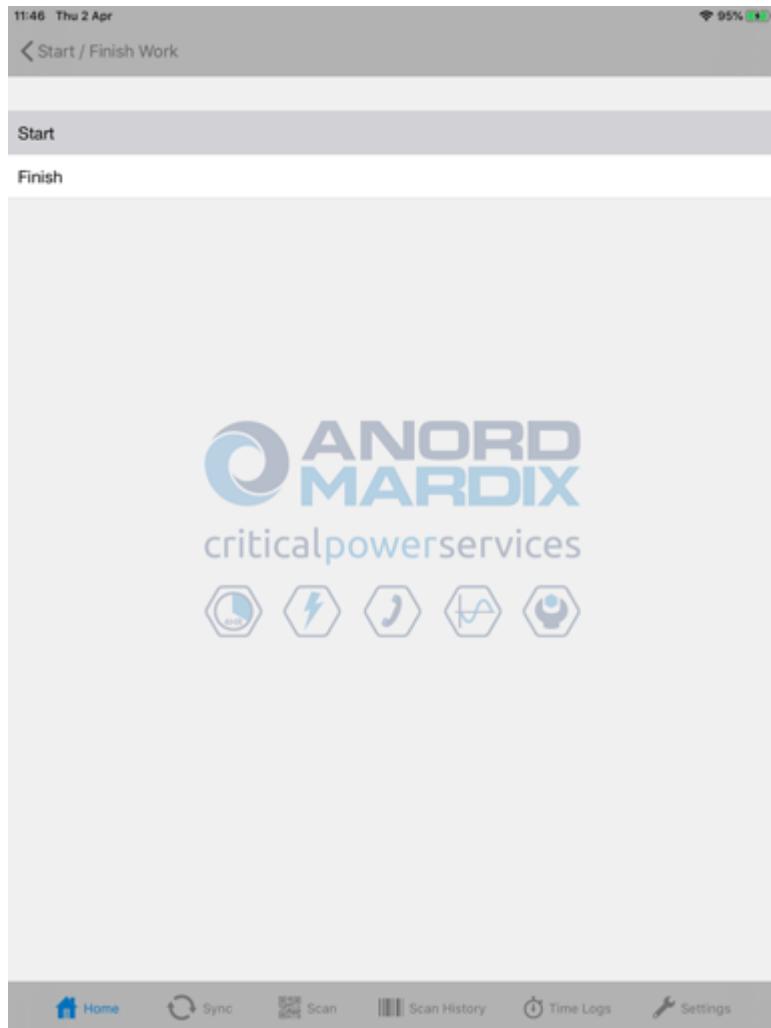
From the list of results, select the site under the relevant works order.

Note that selecting a site will also set the works order for the time log.

Start or Finish is selected from a list.

Note that a 'Start Work' log will be automatically terminated if you then start a new work log, or if you log leaving the site - so you do not have to log a 'Finish Work' log each time.

iOS Engineer App



The Date and Time is selected from a date picker. This will default to the current date and time.

After setting the date and time, use the back arrow at the top left of the screen to confirm.

iOS Engineer App



When all required information has been set, press **Done** to save the time log.

text

1.13 Settings

The Settings screen is used to display general system information, and to change some of the app settings.



The information displayed on this screen includes

- details of the user currently logged in
- application and database version numbers
- base URL of the API (the https web service that the app contacts to exchange information with the server)

There are also a number of actions that can be performed on this screen.

- **Logout** logs the current user out and returns you to the [login screen](#)
- **Check For Updates** opens up the [installation web page](#) if you need to update the app to the latest version; you will normally be notified when an update is available
- **Restore Defaults** resets all app settings to their default values



If you are **updating** the app, unless otherwise stated you must ensure all data is [fully synced up](#), as otherwise you may lose any unsynced data.

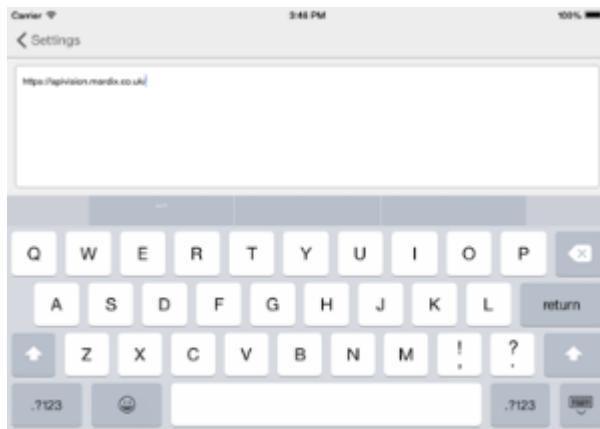
1.13.1 Changing App Settings

The Settings screen also allows you to make changes to some of the app settings. Note the **Restore Defaults** button will set these back to their default settings.

The **Test Documents** functionality can be turned on or off, depending on whether the engineer needs to use this functionality or not. If it is turned off, the test documents screens are simply hidden from view.

Preserve Scan History During Sync, if set to on, will ensure that any items listed in the [Scan History](#) will remain following a full download sync. Under normal operation, all items in the scan history are cleared during a full sync.

The **API Base URL** is the base URL of the https web service that the app contacts to exchange information with the server. This should only be changed under direction from the Mardix software support team.



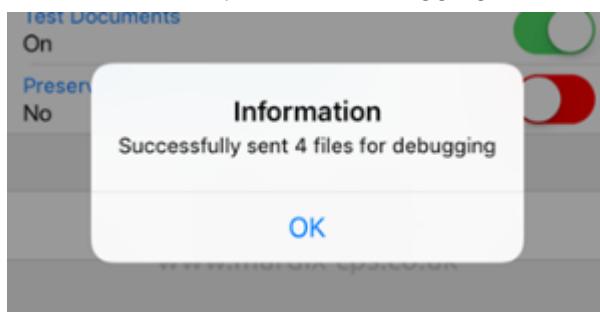
1.13.2 Sending Debug Information

In extreme cases (for example during major sync problems), it is sometimes necessary to send debug information about the app to the Mardix software support team. This can be done easily by tapping on **Send Debug Information**.

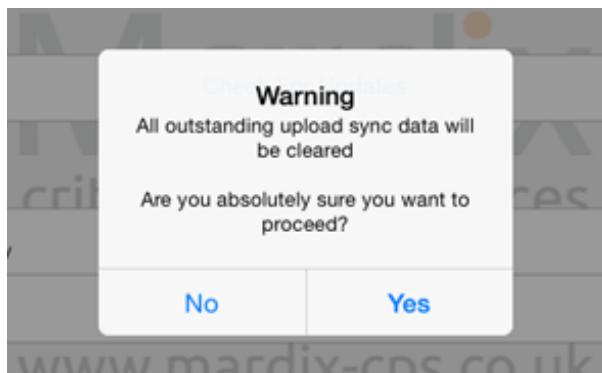


It is recommended to also ensure that **Include Debug Resources** is turned on before sending debug information, especially if you are having problems [syncing data up](#), as this will ensure any unsynced information is also sent, helping to prevent data loss.

A progress icon will appear, followed by a message informing you that a number of files have been successfully sent for debugging.



Once you have sent the debug information, if you are having problems syncing up then you can reset any outstanding sync data by tapping on **Reset Sync Data**. As this is a fairly extreme option, you will receive a prompt first.



Before resetting sync data, if you do not want to lose any data you **must** send the debug information with debug resources included (as described above).

After resetting sync data, the red badge on the **Sync** tab icon (signifying the number of unsynced items) will be cleared.

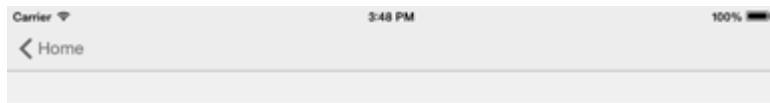


1.14 Support

The Support screen provides details of how to contact the Mardix software support team in the event of any problems using the app.



Tapping on either the phone number or **Call Now** on this screen will automatically call the main Mardix office number.



1.15 Troubleshooting

Some of the more common problems encountered when using the Engineer App, together with some suggested solutions.

Problem	Error Code/Message	Possible Solution
Installation and updating		
Installation page showing older version than expected		Clear Safari cache: http://www.imore.com/how-clear-stored-website-data-ios-7-safari
Registration and logging in		
Unable to register	No registration data was found for your credentials	Confirm username and password are correct Ensure app has been updated to the latest version Check wi-fi signal

Problem	Error Code/Message	Possible Solution
		Ensure device is not in airplane mode Go to Settings and select Restore Defaults
Forgotten PIN		Re-register username on app
General issues		
App crashes		Close any other background apps Turn device off then on again to clear memory
Syncing		
Sync fails	0x0001001C The network connection is unavailable	Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults
Sync fails	0x00010026 The server did not recognise the request	Ensure app has been updated to the latest version Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults
Sync fails	0x00010027 The server is not currently available	Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults

Problem	Error Code/Message	Possible Solution
Sync fails	0x00010028 The server reported an error	Ensure app has been updated to the latest version Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults
Sync fails	0x00010008 There was a problem syncing one of the items	If any of the above error codes are also displayed, refer to the relevant solution above <i>Otherwise</i> note any other error codes and contact Mardix software support
Searching		
Counts showing 0 on Search screen		Run full download sync
Scanning		
Service tag not found	No equipment data was found	Ensure valid Mardix service tag is being scanned Run full download sync
Test Certificates		
Error when creating	0x00010013 There was a problem sending the test session information to the server	Ensure app has been updated to the latest version Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults

Problem	Error Code/Message	Possible Solution
Unable to activate	You do not currently have authorisation to activate this test session	Test session has been set up for another tester, log in as correct tester <i>Or</i> create new test session
Error when activating	0x00010014 There was a problem retrieving the updated test session information from the server	Ensure app has been updated to the latest version Check wi-fi signal Ensure device is not in airplane mode Go to Settings and select Restore Defaults
Error when activating	0x0001001A Test session has already been activated on another device	Test session has already been activated by another engineer
Error when abandoning	0x0001001B Test session has been modified on another device, unable to abandon	Test session has already been activated by another engineer