GTT-VFA IGU Testing User Guide

Scope

View IGUs need to be tested for tinting functionality at different stages of the glass installation process. This testing is necessary to ensure that any part of the installation process does not damage the ability of the IGUs to tint and clear once the building is turned over to the customer. To enable our trade partners to do this test and keep an accurate log of all testing activity, View has created a testing kit that is to be used to test each IGU through shipment, unitization, and installation. The following is a guide to do the initial setup of the kit and then subsequent testing of the IGUs.

GTT and Tablet Test Kit Includes

- Glazier Test Tool 010-101781
- Silicon Cover 020-101673
- Smart Window Connector Caps (x10) 370-101509
- DC Charger 750-101502
- Grounding Connector 370-101516
- Alligator Clip Cable 380-101558

Materials Required, provided by others

- Digital Volt Meter

Work Performed by

- Glazing Contractor
- Low-Voltage Electrical Contractor

Ordering Information

- Model Number: VN-GTT-T: Glazier Test Tool and Tablet Kit

Replacement Parts

| Part Number	Description
VN-GTT	Glazier Test Tool with accessories
900-101570	Samsung Galaxy Tablet S8
020-101673	Silicone cover
370-101509	Smart Window Connector Cap (x10)
750-101507	USB-C power supply
750-101502	DC charger
370-10156	Grounding connector
380-101558	Alligator Clip Cable
50-102231	SaharaCase Protective Case 0
750-101507	25 watt USB-C power supply

Packaging

Glazier Testing Tool (GTT):
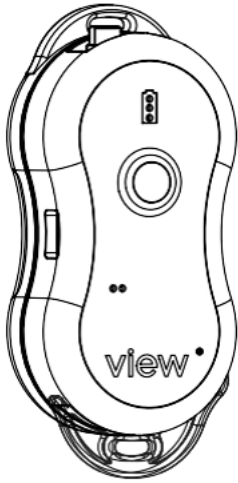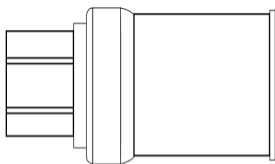

Glazier Test Tool
010-101781

Silicon Cover
020-101673
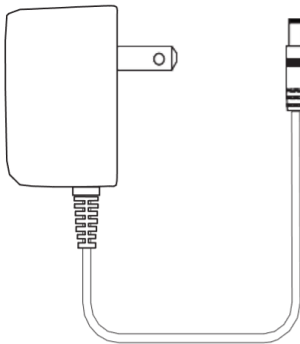
DC Charger
750-101502

Grounding Connector
370-101516

Smart Window Connector
Caps (x10) 370-101509

Alligator Clip Cable
380-101558

Samsung Galaxy Tab S8 with a protective case and screen guard:

Samsung Galaxy Tablet S8
900-101570

SaharaCase Protective Case
050-102231


25W USB-C Power Supply
750-101507

Initial Setup

1. Unbox the kit and take out the contents of the kit from its packaging.

2. Charge GTT and Tablet 24-hours prior to set up and use

3. Turn on the GTT device by holding down the center button for 3 seconds and ensuring the device is charged. If not, charge the device using the included 12V DC charger.
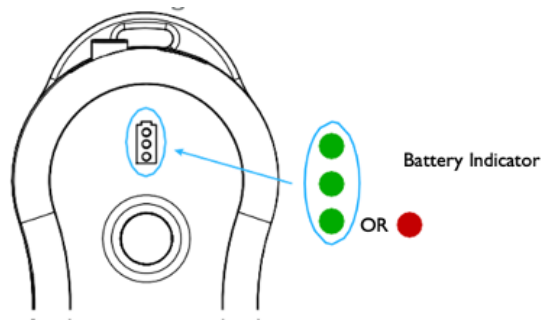

4. Turn on the Samsung Tablet and follow the on-screen instructions to set up the tablet for use. For additional support in setting up the tablet, please visit:

   https://view.com/sites/default/files/documents/sam_x700_x800_x808_x900_en_um_os12_ac.pdf

5. Locate the "ViewNet Field" app from the app screen and open it.
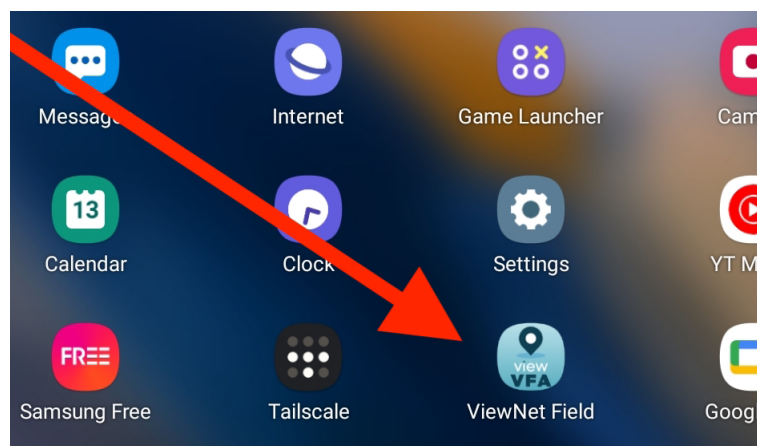
6. Enter the email ID that was provided to View team member for app access.

7. Enter the password that was shared by the View team member.
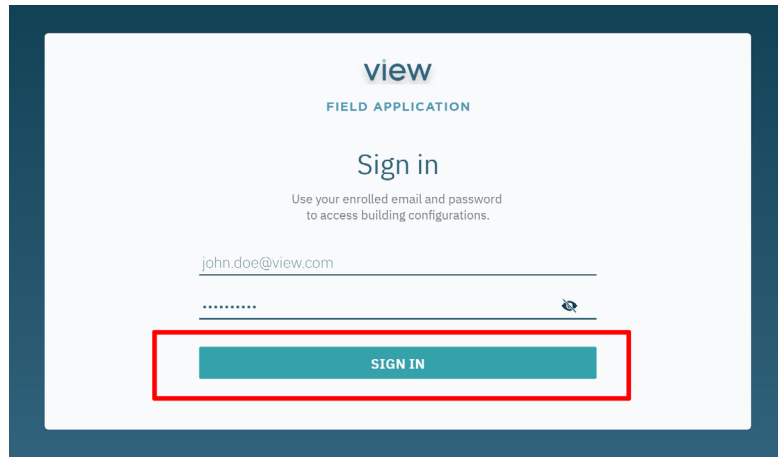
8. Click on the menu icon on the login page and select the correct option based on input from the View Project Manager. The options are QA, Staging, and Production.
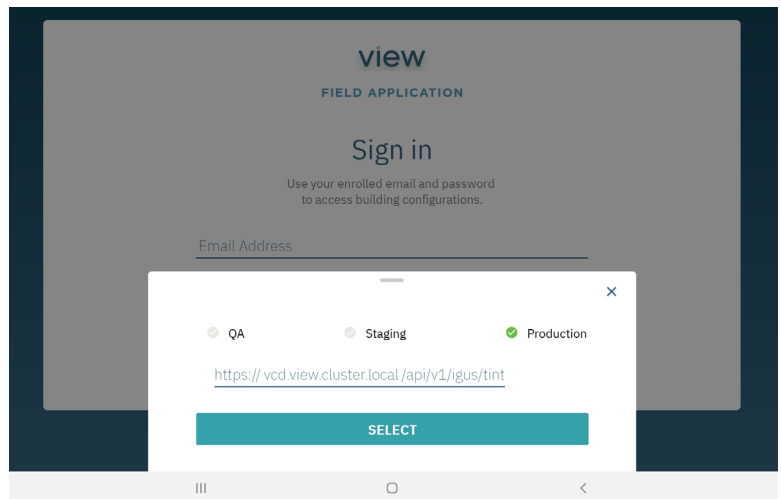
9. You can leave the URL field under the options to their default value.
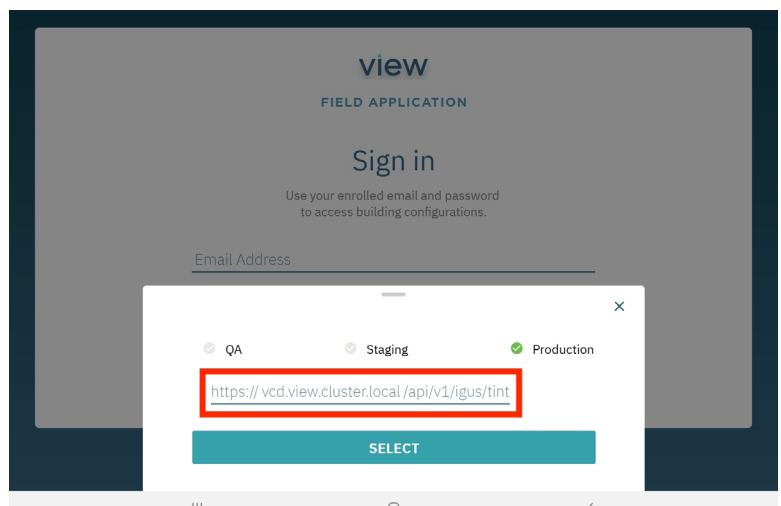
10. Click 'SELECT' and then 'SIGN IN' on the main login page to log into the app.

Testing the IGU's

When and what to test:

Testing upon receipt from View (required)

Step 1: Test each IGU upon receiving shipment from View. This test must be completed before the IGU goes into the framing system. The grounding clip is not utilized for this test.

Testing of shop installed systems (required)

Step 2: For shop-built (unitized systems), glaizer is required to test the cabling before the unitized frames are sent to the job site.

Step 3: Testing upon installation (required):

This is the critical test to ensure proper final installation and is required as per View Specifications. Once the windows and any adjoining elements that could interfere with cabling have been installed, it is time to do final testing of all IGU's and record the results. The testing should be done on the IGU cable, which exits the framing system for each IGU. This test should be completed for all framing types.

Testing:

**STOP: The glass must be clear**

In order to have an accurate test result, the glass must be clear (free of charge). Please ensure that a shorting cap is on the IGU Smart Window Connector. If there is no shorting cap, please connect one and wait 15 minutes before testing. This must be done for all windows.
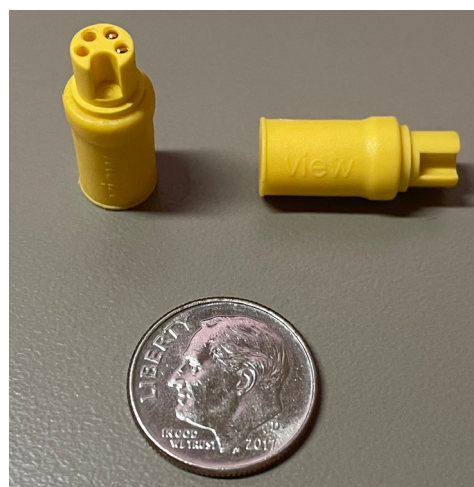
#1: Turn on the GTT

Turn on the GTT by holding down the center button for 3 seconds. The LED lights will turn on to indicate the device is on.

Ensure there is sufficient battery charge by checking the battery indicator as shown below. If the charge is low, charge the device using the included 12V DC Wall Charger. The GTT can take up to 8 hours for a full charge. The base light at the bottom of the GTT should flash red to indicate GTT is on and on standby.
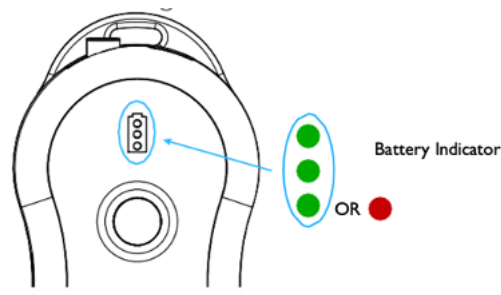
#2: Select a project from the home screen on View Field App (VFA)

After logging into the app, you will see one or more active sites assigned to you as a user. Select the appropriate site by clicking on the panel for the project.
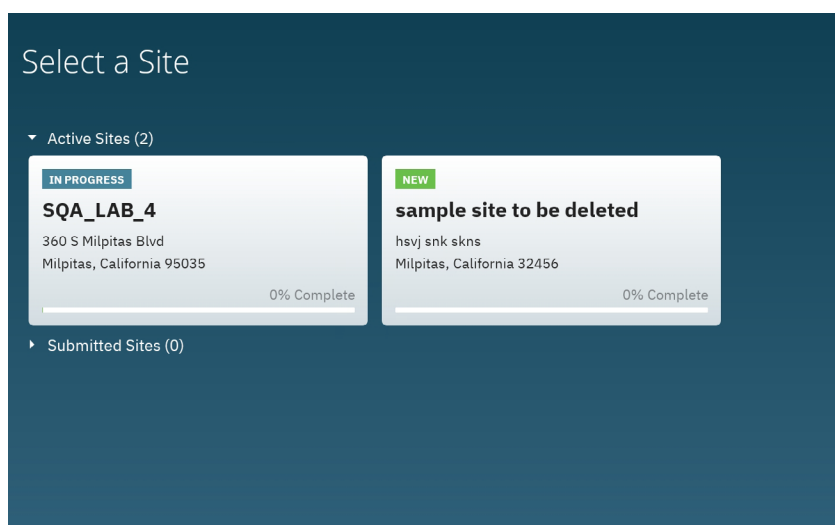

Note: Before selecting, verify the site is the correct project and building. Consult with your View team member when in doubt.

#3: Connect the GTT to the tablet

Locate the 'GTT Testing' feature from the welcome screen and verify if the GTT is connected. If not, connect the GTT to the tablet by either of the two methods below:

Method 1: Connect using QR code

Ensure that the GTT is on, and the base light is blinking red. Locate the scan QR code button on the top right corner of the VFA welcome screen as shown and select it. Accept any camera permissions if prompted by the tablet.

360 S Milpitas Blvd
Milpitas, California 95035
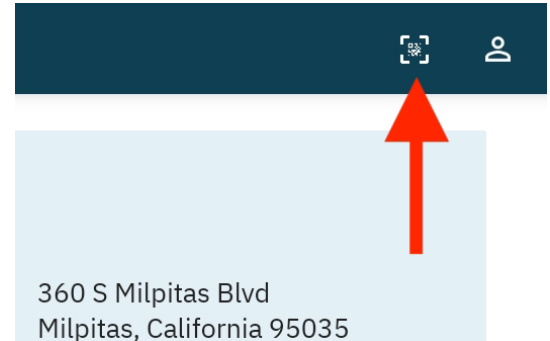
Locate the QR code on the face of the GTT and focus the camera on the app upon the QR code. The app will prompt you to connect to the GTT. Select 'CONNECT' and then 'Pair'. The GTT Connected indicator on the app should turn green.
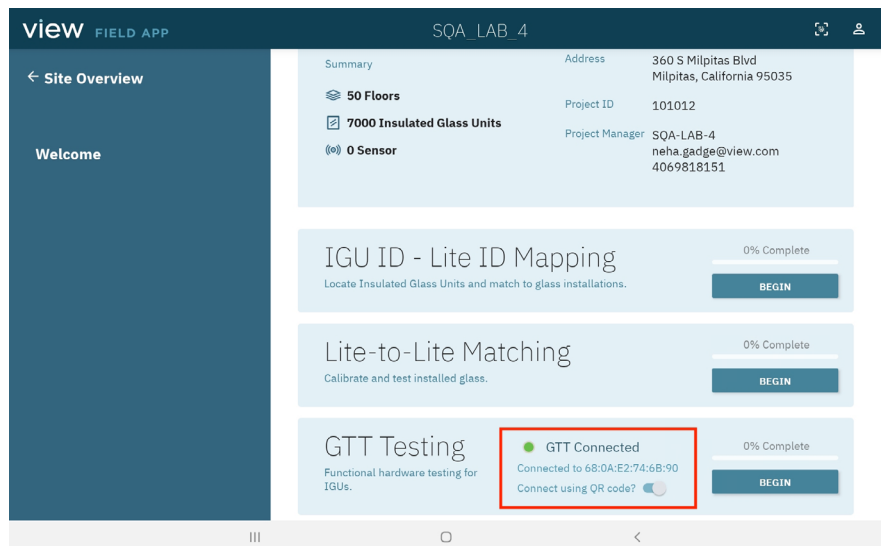

Method 2: Connect without using QR code

Ensure that the 'Connect using QR code?' toggle is switched off. The bottom right button on the feature should turn to 'Connect GTT'. Select 'Connect GTT' and accept the connection and pair request. The GTT Connection indicator (as shown in method 1 should turn green).

Step 4: Start an IGU testing session

Click on 'Continue' in the 'GTT Testing' panel to start testing. Under the 'GTT Testing Home' page, identify the appropriate test number and select the 'START TEST' button under it.
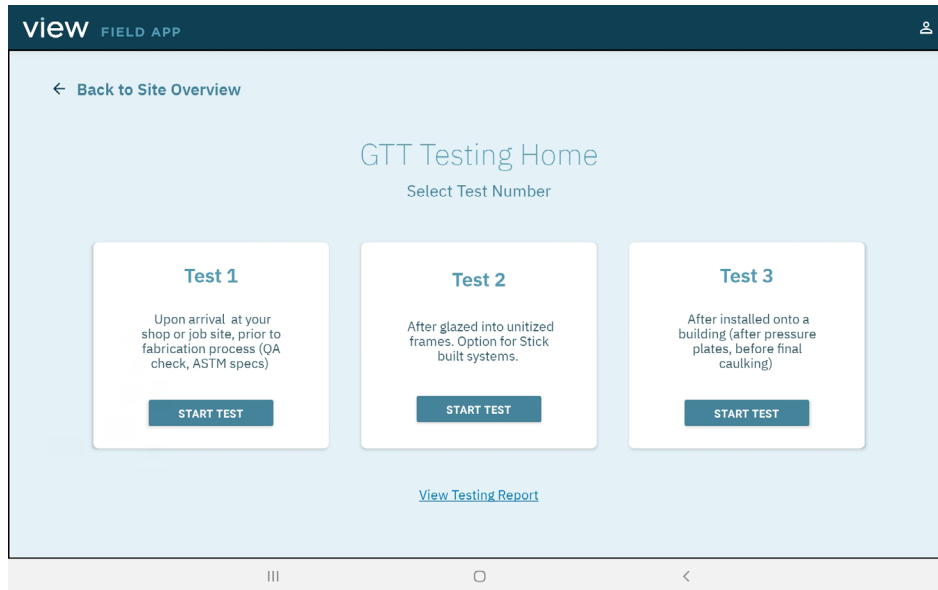
Step 5: Start an individual IGU test

From the previous step, check to see a testing prompt for 'Connect GTT Device to IGU Start Test'.

**Step 6:** Connect GTT to IGU Cable or Smart Window Connector

In order to begin test, attach M8K connection on the GTT to the IGU cable or Smart Window Connector to be tested.

Step 7: Electronically ground the GTT before testing

Attach the alligator clip to a grounded metal part (not anodized or painted) of the frame to create a common ground (without this, the system will be unable to test for ground shorts such as a screw going through cable or bare wire touching the frame).

This is required for all testing where the cabling is inside the frame (not required for IGU receipt testing).

1. If the frame does not have raw metal to connect, connect to a screw going into the frame.

2. If there is a doubt whether there is continuity between the frame and the alligator clip, complete a continuity test between the alligator clip body and the frame to be connected using a digital multimeter.
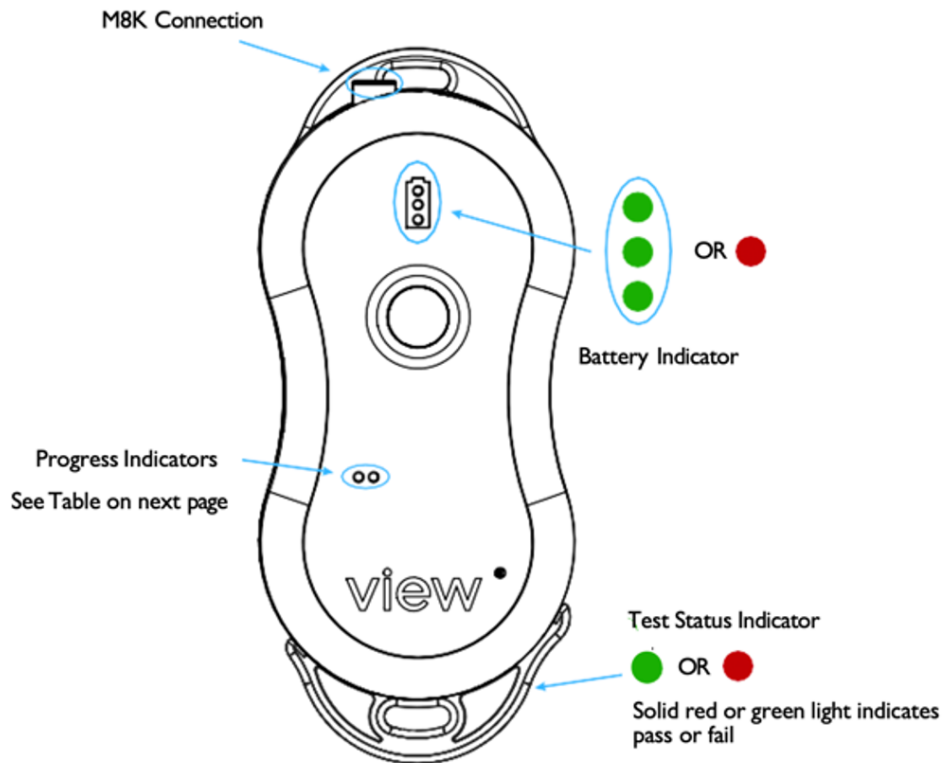
Step 8: Begin the test

Once the IGU is connected, the GTT will detect the IGU and if successful, the base indicator will flash green. Press the center button to start the test. The VFA app will indicate that the test is in progress.
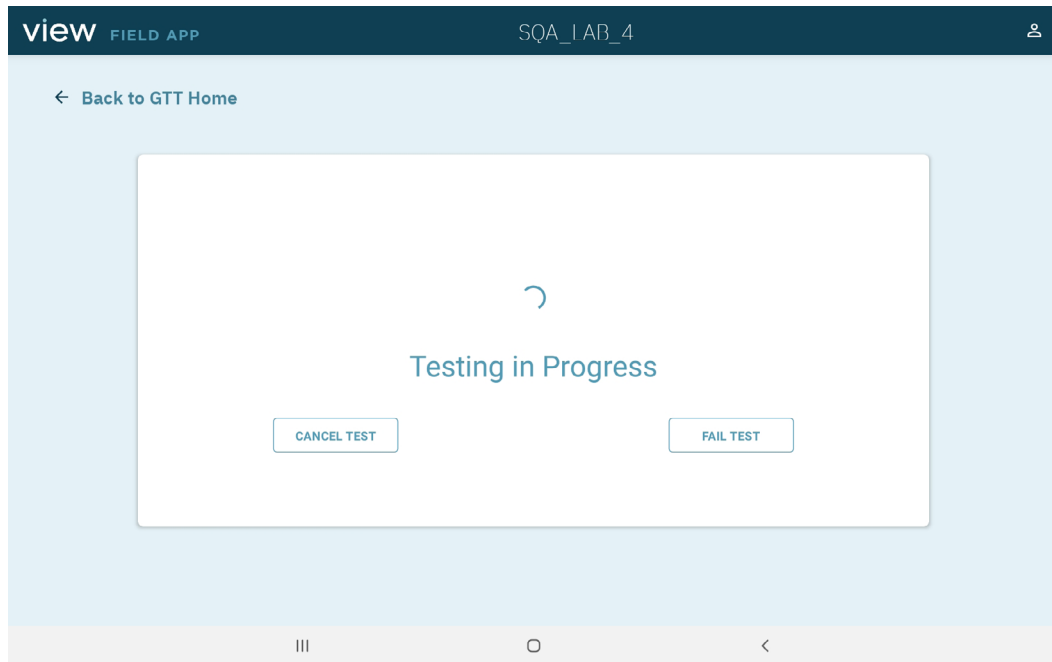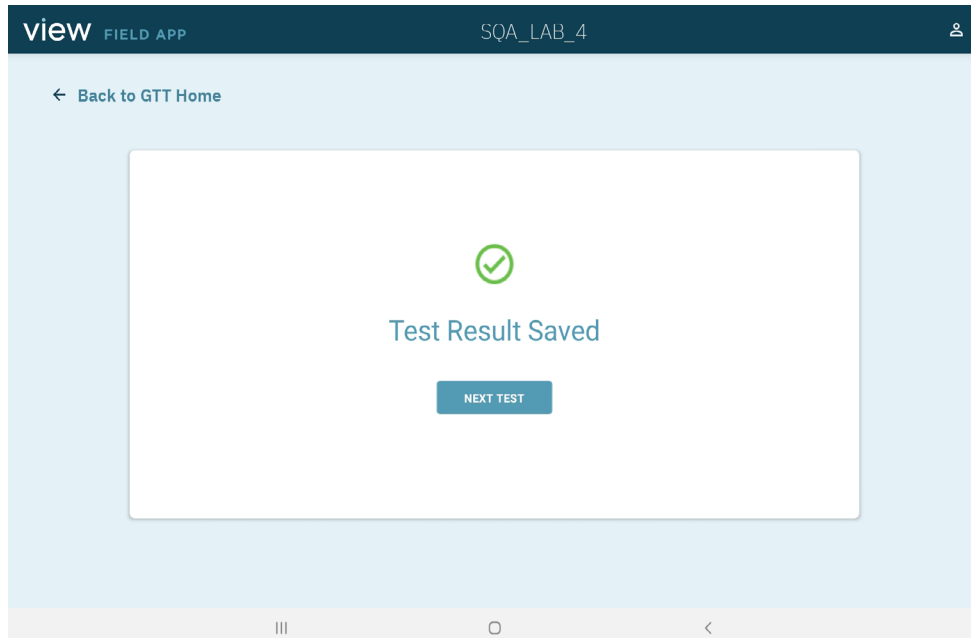

A typical test takes approximately a minute. After the test is complete, results will be displayed on the screen. Users should review the results and make any comments in the optional notes field. Accept the results of the test by pressing 'SAVE RESULT.'
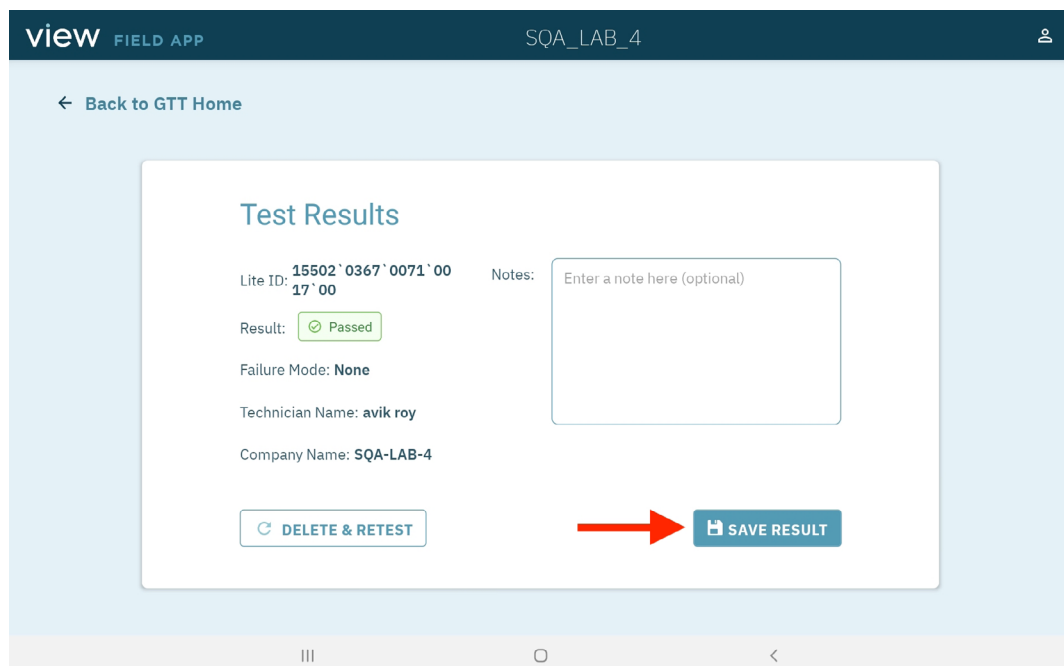
Step 9: Test the next IGU

Press the 'NEXT TEST' button and continue testing with the kit repeating step 4 through 8.

Step 10: Sync test results with project database

NOTE: If testing was conducted in an off-line environment (tablet not connected to the Internet), sync results after the completion of the day's testing by connecting the tablet to WiFi and re-open the app (if closed) to automatically sync results to the cloud database for the project.
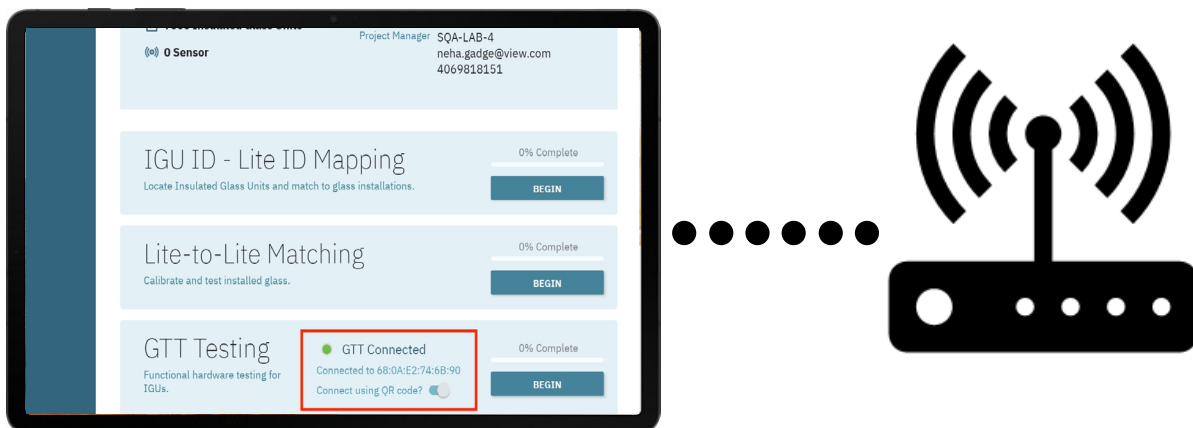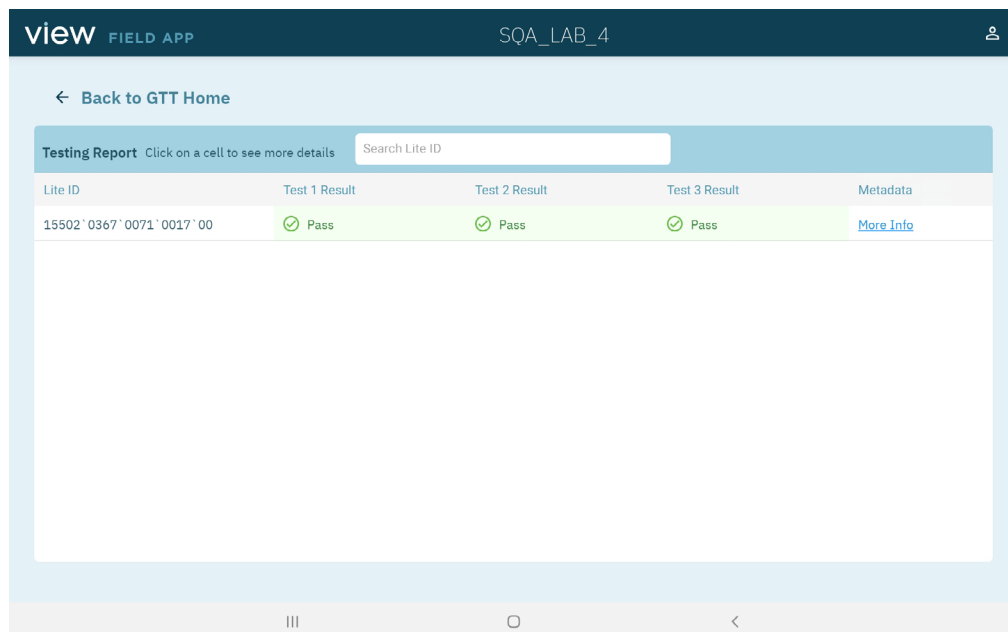
Reviewing test results

From the 'GTT Testing Home' page, locate the View Testing Report link at the bottom of the page.
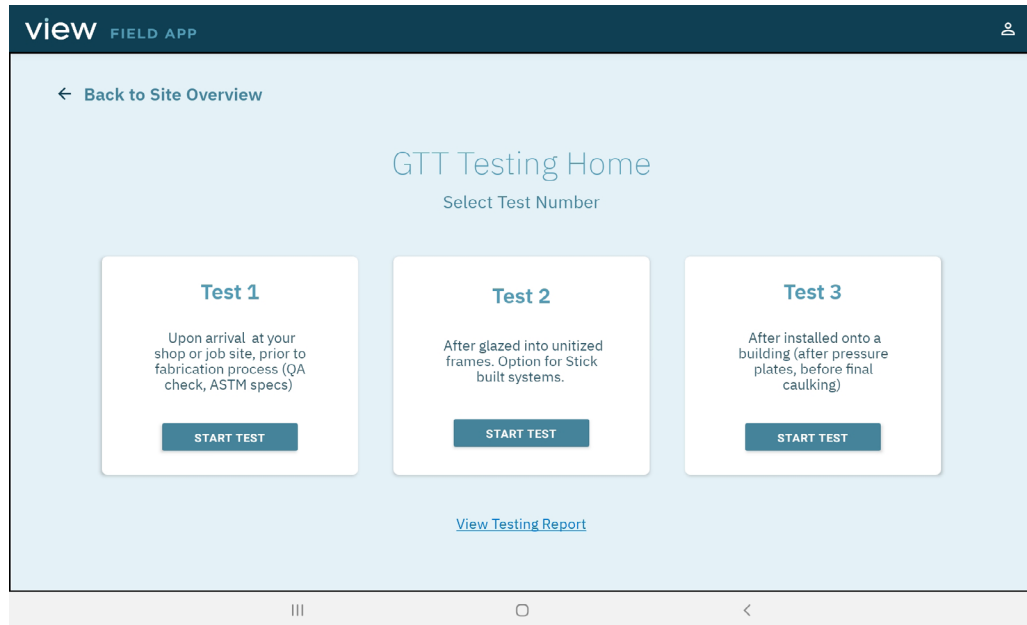
Clicking on the link will take you to the complete testing report that has been completed to date on the project. Each row shows the testing history for each individual IGU that has been tested.

Below is a description of each field.

Lite ID: A numeric unique identifier for each IGU. This number is used to identify and track the IGU through manufacturing, installation, commissioning, and operation.

Test 1, 2, 3 Result: These show if a unit has failed or passed the test. Clicking on any of the fields displays the complete test result as shown at the time of testing.

Metadata: During each test, the details of the users are captured, including the time and date of the test. Clicking on the 'More Info' link displays the name, company, last modified, and modified by information.
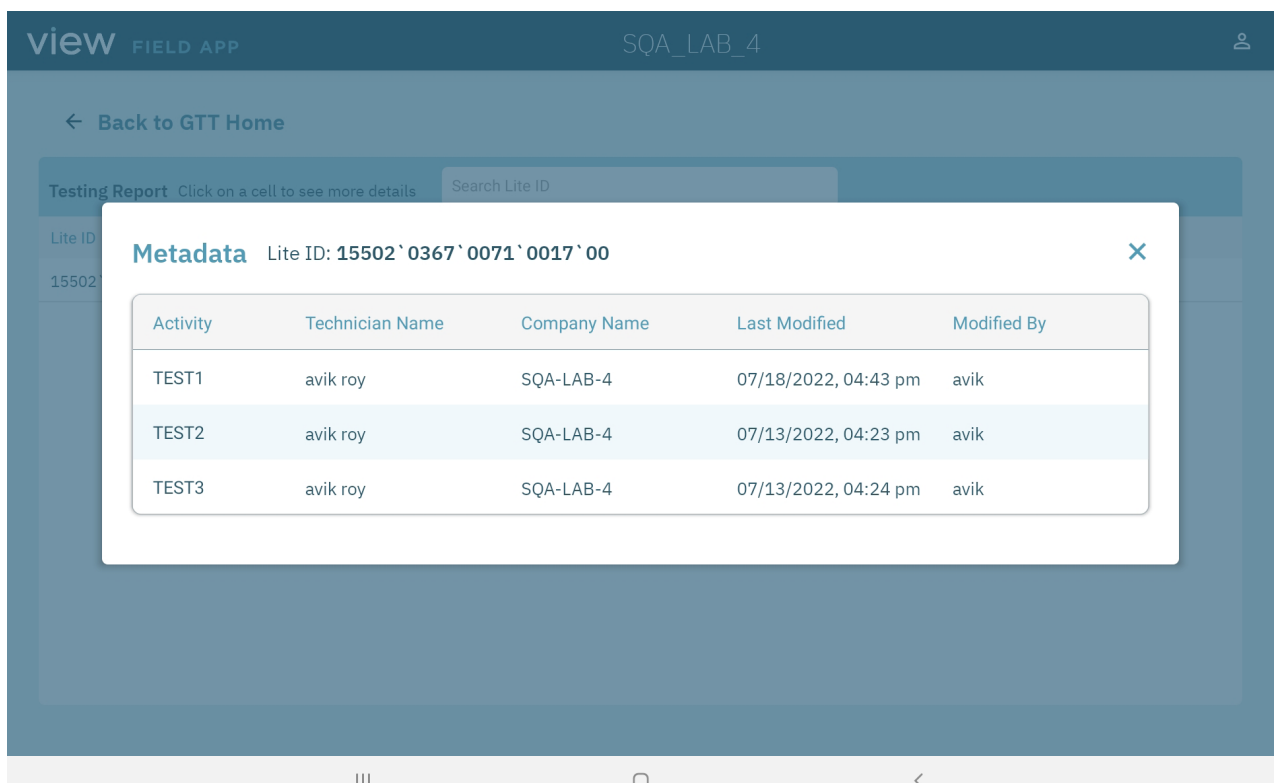
Note: The report can be browsed by scrolling or filtered by inputting a Lite ID in the search field at the top.

What type of failures does the GTT Kit test for?

Cable Damage: Any cable damage will either lead to a failed completed test or failure to begin the test. If the GTT is fully connected and the test won't begin (blinking red light), this indicates either a damaged cable or missing IGU parameters. Depending on which wire in the cable is damaged, the test may do a full test and then fail or fail to start completely. Both should be considered failures.

Missing Smart Window Connector Parameters: If the IGU parameters are missing, the test will fail to start and show double blinking light on large indicator light.

Non tinting IGU: If an IGU is completely unable to tint and hold charge (i.e. Busbar disconnected), the test will fail.

Tinting Performance: The GTT does not tint the glass. Slow tinting IGU's are not tested as part of this test.

Visual Defects: The GTT does not tint the glass so visual defects will not be visible. Otherwise, working IGU's which have halos or other visual defects will pass the GTT test.

FAQ

Q: What do I do if my test fails?

A: If an IGU test fails, save the test result and continue with the testing. Plan on notifying the View Project Manager of all failed results to date or since the last notification. The View Project manager can remotely log into the project and view all test results. If advised by the View Project Manager, you may re-test the IGU with the corrective action prescribed. Please note that you are selecting the correct corresponding Test 1, 2, or 3 to do the retest. The VFA app will prompt you to overwrite the test results when you try to save them.
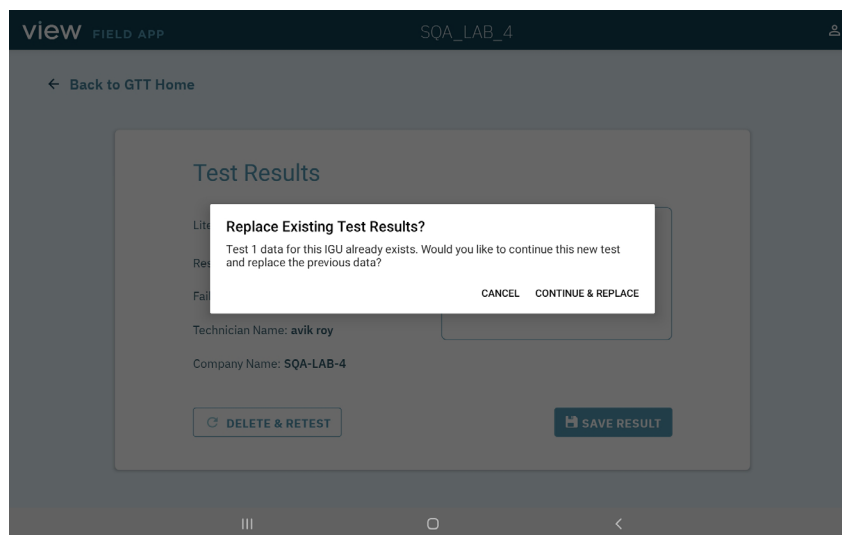
Upon review of the new test result, View team member will follow up with further instructions.

Q: I connected the IGU, but the base button is not blinking green. What do I do?

A: Check to see if the base button is blinking red. If it is, the GTT has failed to detect the IGU, or it detected an error in the Smart Window Connector (the connector coming out of the IGU). Record the Lite ID on the tag attached to the Smart Window Connector or the shipping label on the IGU and notify the View Project Manager for further troubleshooting or arbitration.Please note that you are selecting the correct corresponding Test 1, 2, or 3 to do the retest. The VFA app will prompt you to overwrite the test results when you try to save them.

Q: The 'Testing in progress' screen shows indefinitely (more than 5mins). What do I do?

A: Press the 'FAIL TEST' button displayed on the screen. It will take you to a screen that accepts a manual entry of Lite ID.

Record the Lite ID on the tag attached to the Smart Window Connector or the shipping label on the IGU and input that in the Lite ID field. Put additional notes in the notes field explaining why you have failed the test (compulsory) and notify the View Project Manager.

Q: The GTT is charging slowly. Is something wrong? Q: The GTT is charging slowly. Is something wrong?

A: The GTT requires 8-10 hours for a full charge.

Q: How can I be sure the alligator clip is connected to the frame?

A: The best way to ensure a connection is to attach the clip to a raw (unpainted or anodized) part of the frame after installation; in most framing systems this could be any part of the frame, but for a coated system like Hylar, the best alternative is a screw fastened into the framing system. The framing system does not need to be earth grounded, but rather the GTT needs to be grounded to the framing system. If doubt exists, a multimeter can determine if the metal is grounded. In this case, with the grounding clip connected to the frame, one lead should touch the ground clip, and one should touch a similarly coated part of the frame. If the continuity test passes, you are properly connected.

Q: I've received a high portion of failures in a particular area of the system. What's wrong?

A: Please contact your View team member for assistance with troubleshooting.

Q: I need more GTT Kits. How can I order them?

A: Please reach out to your View team member.

APPENDIX

Fig. 1: Proper grounding to aluminum extrusion

Fig. 2: Alternate grounding source

Fig. 3: GTT with a 3.3ft IGU cable

Fig. 4: Shorting cap on SWC/IGU cable

Fig. 5: Plugging the SWC into GTT

Fig. 1: Proper grounding to aluminum extrusion
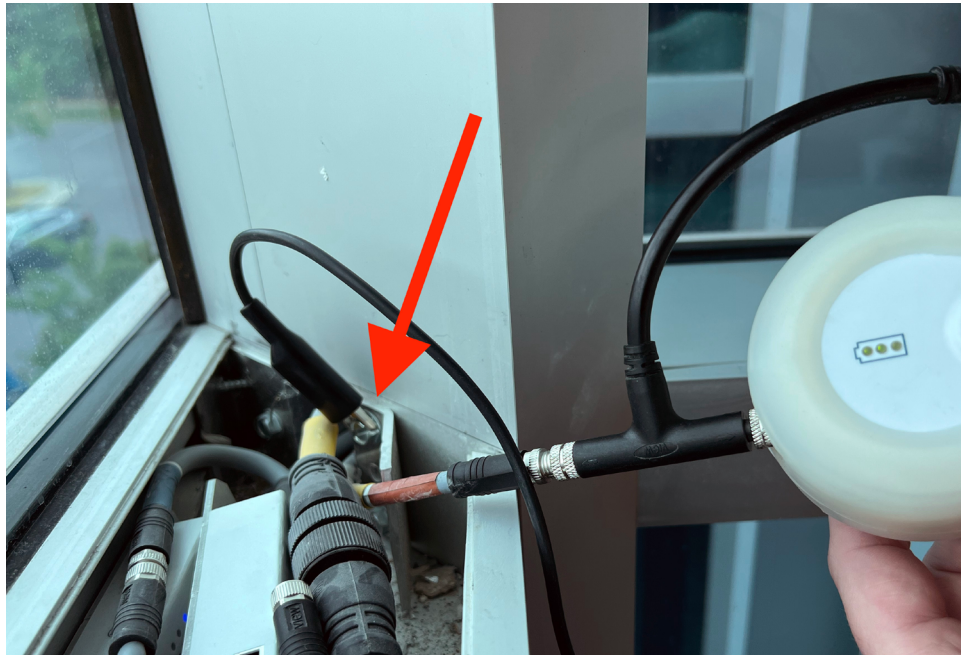

Fig. 1.1

Fig. 1.2

Fig. 2: Alternate grounding source

Fig. 2.1a

Fig. 2.1b

Fig. 2.2a

Fig. 2.2b

Fig. 3: GTT with a 3.3ft IGU cable

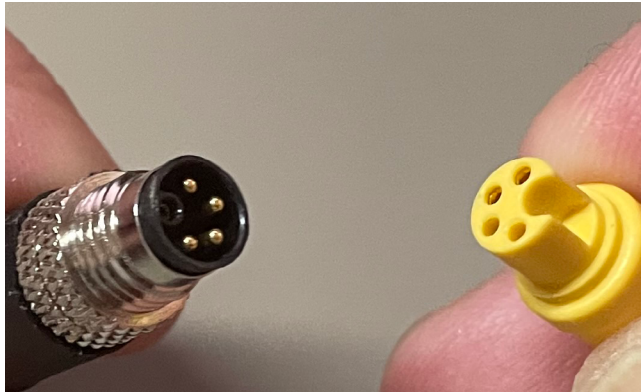Fig. 3

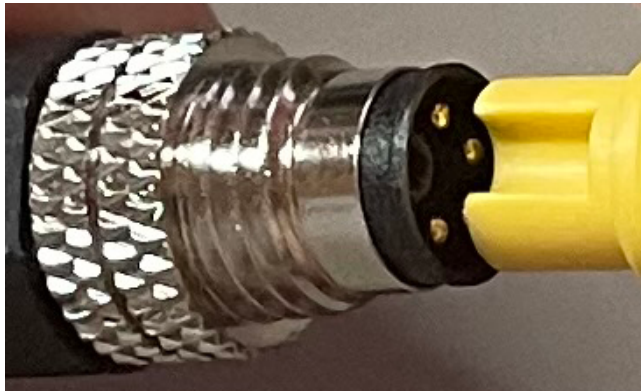Fig. 4: Shorting cap on SWC/IGU cable

Fig. 4.1

Fig. 4.2

Fig. 4.3

Fig. 4.4

Fig. 5: Plugging the SWC into GTT