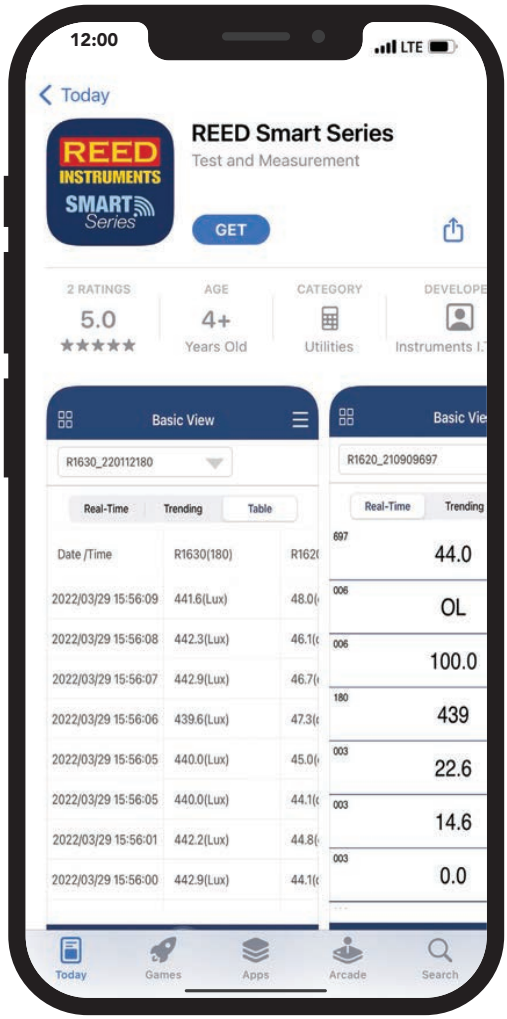
REED Smart Series Software Guide

For more information on each product in this series, please visit www.REEDInstruments.com

Introduction

REED Smart Series instruments can be connected wirelessly to your smartphone or tablet. All measurement data is transmitted via Bluetooth® to the free REED Smart Series app. The app allows users to analyze data, generate reports and send information by email directly from your mobile device.



REED Smart Series Features:

- Bluetooth® 5.0 allows connectivity to instruments up to 246' (75m) away
- Connect, measure and data log up to 6 instruments, simultaneously
- Easy setup with automatic app integration for compatible REED Smart Series instruments
- Measurement data is displayed as instrument readings, tables, or graphs
- Save data in PDF or Excel Format
- Create custom reports that can be saved on a mobile device or sent by email
- Integrated LCD display provides flexibility for use without mobile device
- Tripod mount for long-term monitoring
- Low battery indicator and auto shut off

To learn more and download the REED Smart Series App from the Google Playstore (Android) or Apple App Store (iOS), visit www.REEDInstruments.com/smartseries.

You can also search for the "REED Smart Series" app directly from your device.

Download on the App Store

GET IT ON Google Play

Full specifications and Operating System compatibility can be found on the product page at www.REEDInstruments.com/r1600. If you have specific questions related to your application and/or questions related to software setup and functionality, please contact the nearest authorized distributor or Customer Service at info@REEDInstruments.com or 1-877-849-2127.

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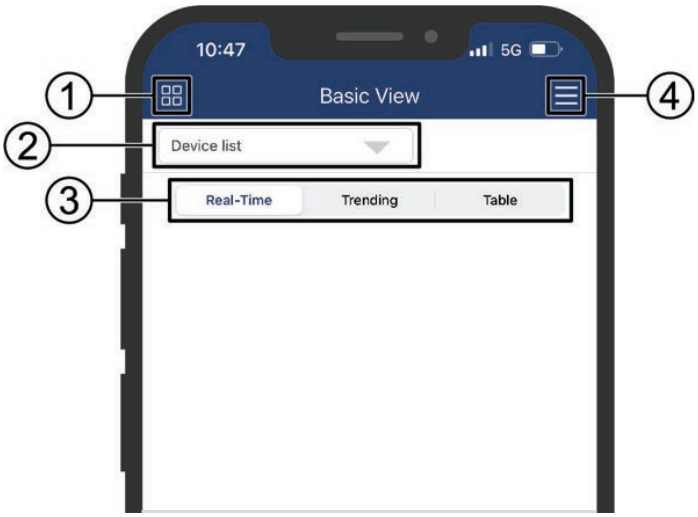
App Display Description

1. Applications Selection Menu
2. Connected Devices Drop-Down List
3. Data Reporting Options
4. Settings Menu
5. View Recorded Files
6. Start a Recording Session
7. Generate a Report



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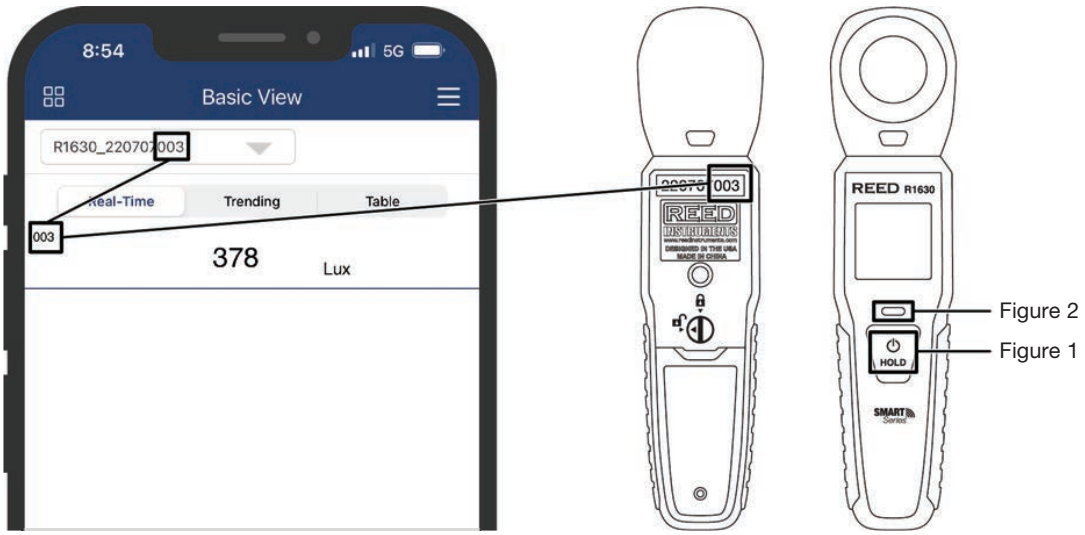
Connecting Instruments to the Smart Series App (Establishing Bluetooth® Connection)

Up to 6 REED Smart Series meters can be connected to the app at one time. Each meter features Bluetooth® 5.0 connectivity which does not require meters to be paired with a device. If the App is open and the meter is powered on, a connection will automatically be established.

1. When the App is open and the meter is powered on (Figure 1), the meter will automatically attempt to establish connection with the App. Until the connection is established, the Bluetooth® status indicator light (Figure 2) will flash blue.
2. When connection is successful the Bluetooth® status indicator remains blue and the current readings are automatically displayed in the App.

Note: The ID Number listed in the App matches the last 3 digits of the meter's serial number which can be found at the back of the meter or in the dropdown list.



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Selecting Application Type

1. Tap on the "Applications Selection Menu" (Figure 3) to switch between Basic View and Volume Flow (Outlet).

Note: The Volume Flow application view only applies to the REED R1600. (Figure 4) (See *Appendix A* for R1600 Setup Instructions.)

2. To view additional information about each application, tap on the ⓘ icon. (Figure 5)

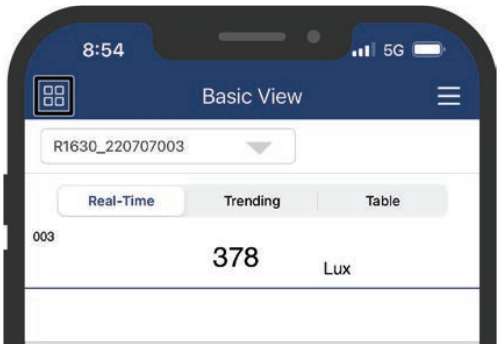

Figure 3

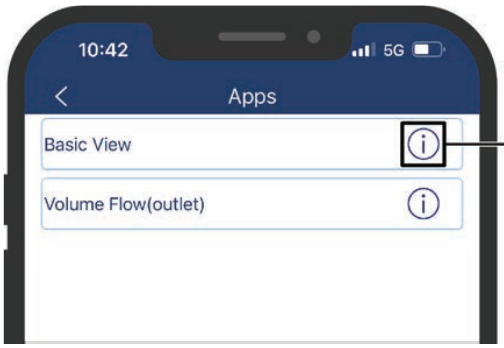

Figure 5

Figure 4

Viewing Device Information

1. While in the application screen, tap on the ▼ icon (Figure 6) to access the connected devices list.

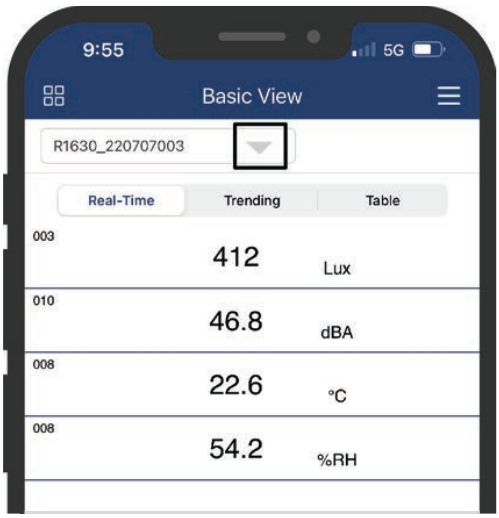

Figure 6

continued…

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2. Tap on any of the paired devices from the dropdown list (Figure 7) to view its device information panel. (Figure 8)
3. Tap on the < button to exit the device information panel and resume normal operation.

Figure 7

Figure 8

Adjusting the Auto-Shutoff time

1. While in the "Device Information" section of the App, tap on "Auto Shutoff" to adjust the auto shutoff time of your device.

Note: This feature is disabled when the device is in recording mode.

2. Enter "0" in the input box to disabled the auto shutoff feature or enter the required shutoff time. (Figure 9)

Note: The entered shutoff time must be equal to or greater than 60 seconds.

3. Tap "OK" to confirm your selection or tap "Cancel" to quit and return to the "Device Information" screen.

Note: The new shutoff time will only be saved once you exit and return back into the "Device Information" screen.

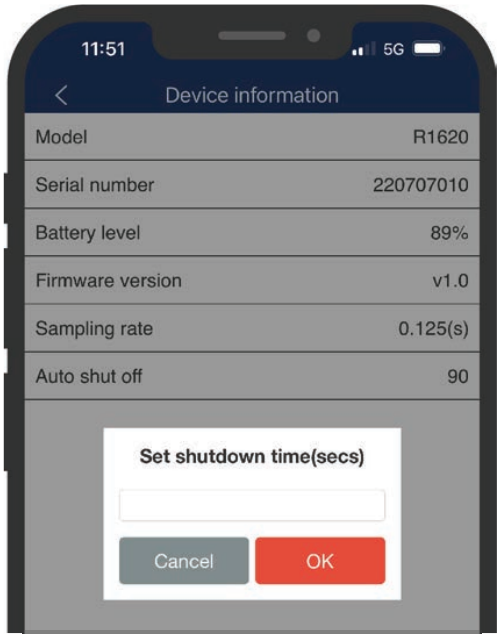

Figure 9

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Data Reporting Displays

There are 3 different views to see data in the App.

Real-Time – This is the default view in the App. As meters are connected, the Real-time data for each will appear in this view. (Figure 10)

Trending – The Record feature must be activated to enable this view (See the *Adjusting the Data Logging Sampling Rate* section of this guide for additional details). Multiple meters can be connected to the app at once, however due to the 2-axis graph setup, only 2 parameters can be viewed in the chart at any given time. (Figure 11)

Table – The Record feature must be activated to enable this view (See the *Adjusting the Data Logging Sampling Rate* section of this guide for additional details.) Here you can scroll down and across the table to see all data logged measurements. This feature will also show a time and date stamp for each measurement. The sampling rate logged for each measurement will follow the sampling rate established by the user. (Figure 12)

Real-Time

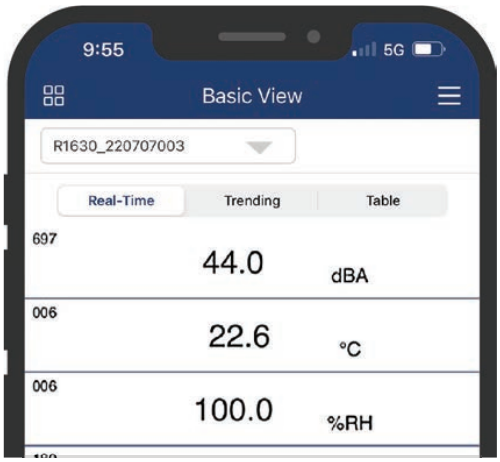

Figure 10

Trending

Figure 11

Table

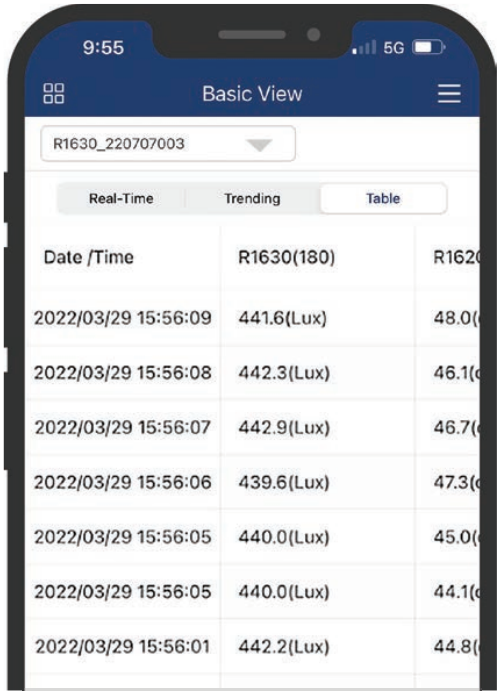

Figure 12

Please note that some meters have multi parameters therefore you may need to scroll down on the App to view data for all connected devices. (Figure 10)

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App Menu Screen

Tap on the Settings Menu button to select between the following parameters:

Parameter	Description
Language	Set App Language
Set Sampling Rate	Set the Data Logging Sampling Rate
APP User Manual	View REED Smart Series Software Guide
About	Displays App Version Number

Once the appropriate parameter has been selected follow the associated instructions below.

Setting the App Language

This screen will allow a user to set the App language. The supported languages are English and French.

1. Tap on the desired language. (Figure 13)
2. The App automatically displays the selected language and returns to the App menu screen.
3. Tap the < button to exit the App menu screen and resume normal operation.

Adjusting the Data Logging Sampling Rate

This screen allows a user to select the data logging sampling rate between 1, 2, 3, 4, 5, 10, 15, 20, 30, 60, 90, 120 seconds.

To adjust the sample rate, tap the sampling rate selector box. (Figure 14)

1. Select the required sampling rate from the provided list or tap cancel to exit.
2. When the sampling rate is selected, the App will automatically redirect to the "Set Sampling Rate" screen.
3. Tap the < button twice to exit the App menu screen and resume normal operation.

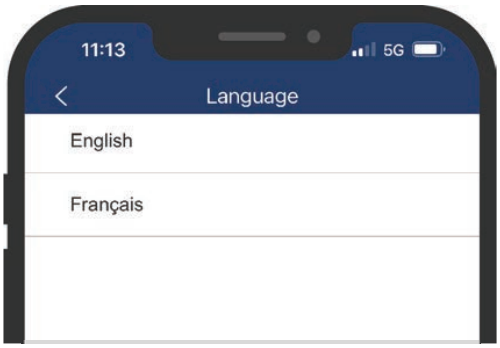

Figure 13

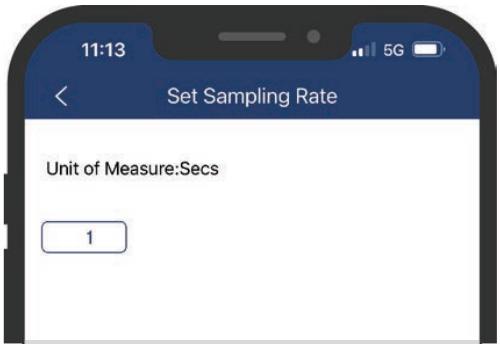

Figure 14

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Starting a Recording Session

1. Tap on the ▶ icon to enter the recording options screen.

Note: Ensure the desired sampling rate has been selected prior to running a recording session. (See *Adjusting the Data Logging Sampling Rate* section of this guide for additional details.)

2. Tap on "Record" to proceed to the next screen or "Cancel" to resume normal operation. (Figure 15)
3. Enter a recording filename. (Figure 16)

Note: By default, the recording filename is referenced as "Test Project".

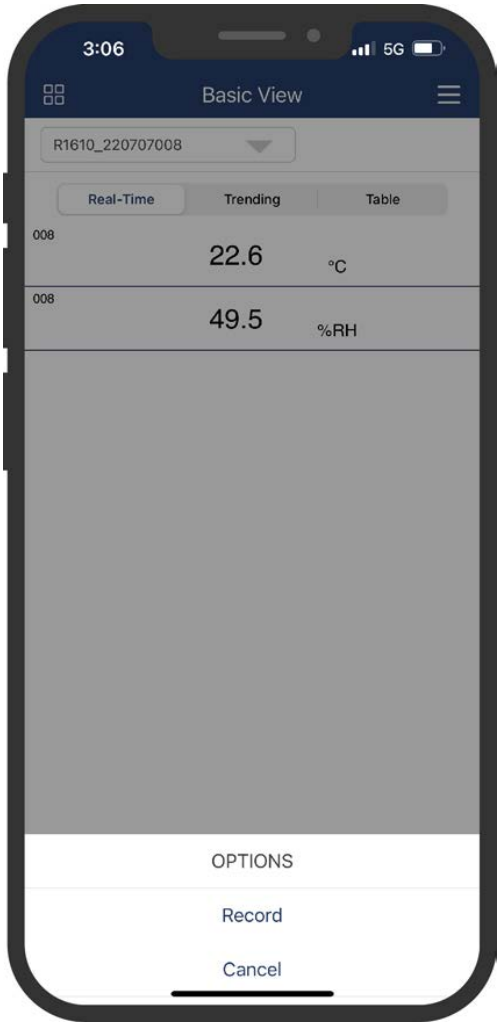

Figure 15

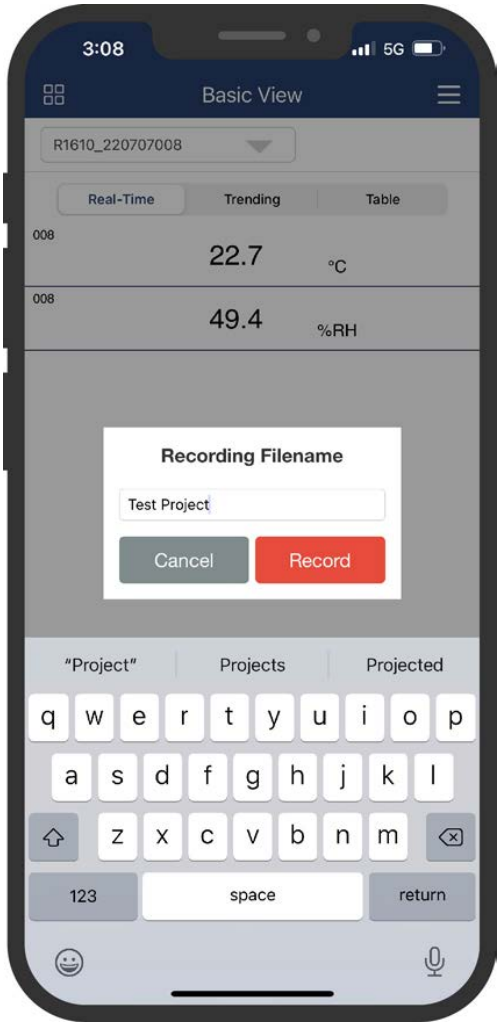

Figure 16

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4. Tap on "Record" to start a recording session or tap "Cancel" to exit and resume normal operation.
5. While in recording mode, the Stop icon will appear, indicating it can be pressed when you would like to end the recording. (Figure 17)
6. Tap on "Trending" or "Table" to toggle between both data reporting displays while in recording mode. (See the *Data Reporting Displays* section of this guide for additional details.)
7. When testing is complete, tap on the Stop icon to end the recording session and the data file will automatically be saved in the "Projects" section of the app. (Figure 18)

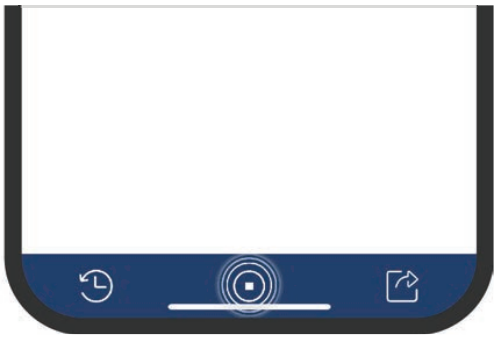

Figure 17

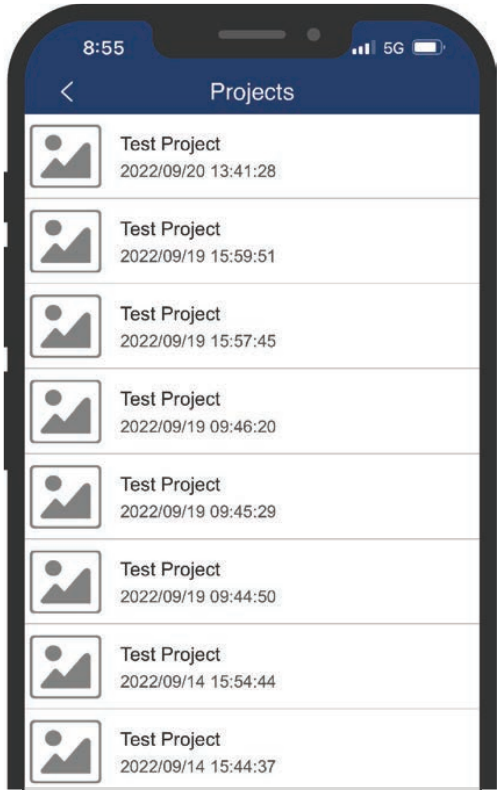

Figure 18

Note: Users do not have the ability to generate full reports with the data files located in the "Projects" section. These files can only be exported as raw data. (See the *Viewing/Exporting Data Files* section of this guide for additional details.)

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Viewing/Exporting Data Files

1. Tap on the icon to enter the "Projects" section of the App to view all of the recorded data files.
2. Swipe up or down to scroll through the list of saved data files, if applicable.
3. Tap on the selected file to view the raw data with time stamps.
4. To edit the filename, add a project photo or notes, tap the "Edit" button. (Figure 19)
5. To export the data file, tap the "Export" button. (Figure 20)
6. Data can be selected via 2 export file formats: PDF File (.pdf) or Excel File (.csv). (Figure 21)

Figure 19

Figure 20

Figure 21

continued…

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7. When a PDF File export format is selected, the App will generate a "Preview Report" of the recorded data which can be exported/shared or saved to your device. (Figure 22)
8. Tap the icon to display the export/sharing options.
9. Select your required sending/export option (this may vary based on your device and the app you have installed that support sharing).
10. Once the PDF file is exported/shared, the App will return to the "Preview Report" screen.
11. Tap the < button three times to exit the "Projects" screen and resume normal operation.
12. When an Excel File format is selected, the App will not generate a "Preview Report" and automatically display the export/sharing options.
13. Select your required sending/export option.
14. Once the Excel File is exported/shared, the App will return to the recorded data screen.
15. Tap the < button twice to exit the "Projects" screen and resume normal operation.

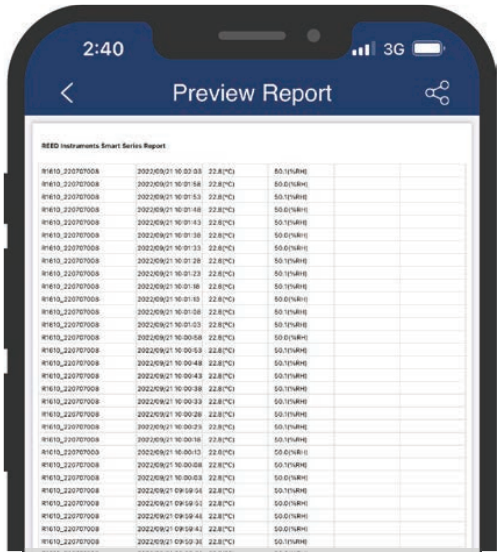

Figure 22

Generating Reports

The app allows users to also generate reports and send information by email directly from your device. Export options include: Generating a PDF report, Exporting raw data in CSV format or sending a screenshot of a trend image in JPG format. This feature is only enabled while a recording session is in progress.

1. Start a recording session. (See the *Starting a Recording Session* section of this guide for additional details.)
2. When testing is done, tap the icon to display the export/sharing options.
3. There are three report options to choose from: Generate Report (.pdf), Excel File (.csv) or Trend Image (.jpg). (Figure 23)

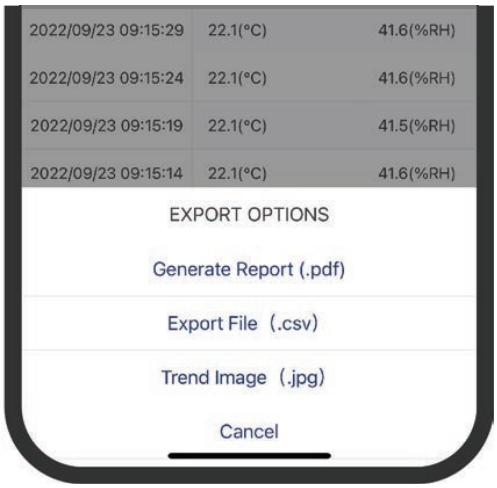

Figure 23

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4. When "Generate Report" is selected, the App enters the "Generate Report" section.
5. At this stage, you have the option to do one or more of the following:
   - Enter company specific information (Figure 24)
   - Enter customer specific information (Figure 25)
   - Add additional jobsite information (Figure 26)
   - Add jobsite photos (Figure 27)
   - Add report comments (Figure 28)

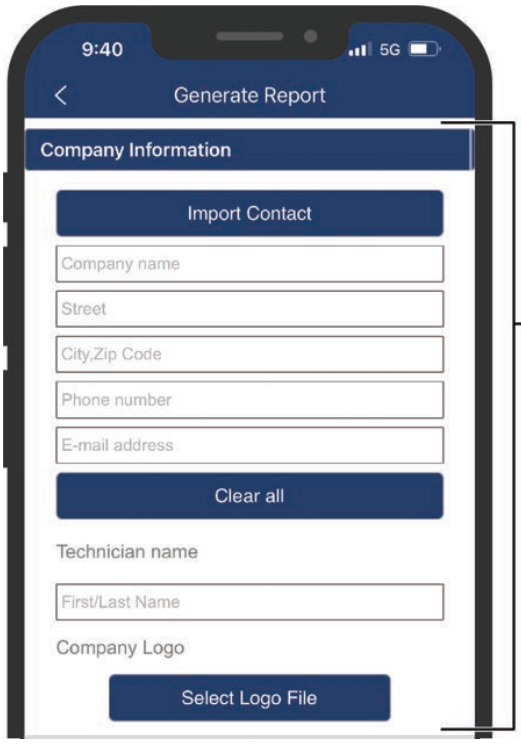

Figure 24

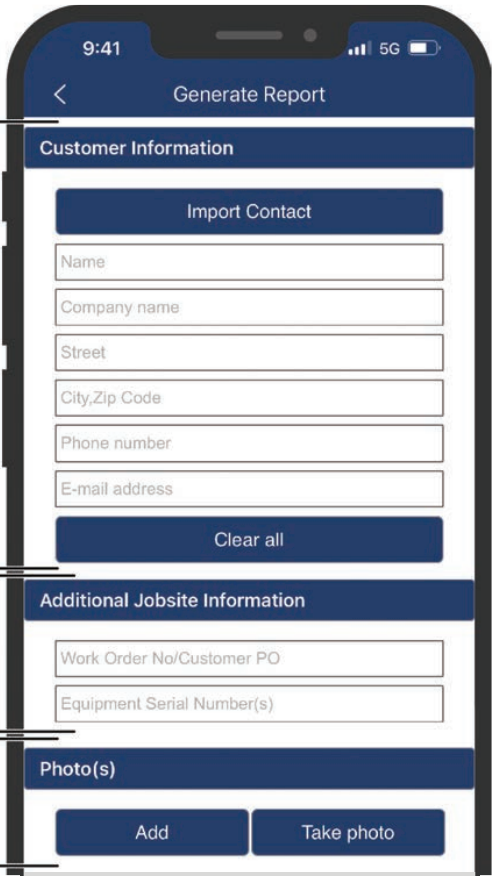

Figure 25

Figure 26

Figure 27

Figure 28

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6. When the "Generate Report" section has been filled out, you have the ability to preview the report prior to generating the full report by tapping the "Preview Report" button. (Figure 29)
7. When ready, tap on the "Generate Report" button to display the export/sharing options. (Figure 30)
8. Select your required sending/export option.
9. Once the report is exported/shared, the App will return to the "Generate Report" screen.
10. Tap the < button to exit the "Generate Report" screen and resume normal operation.

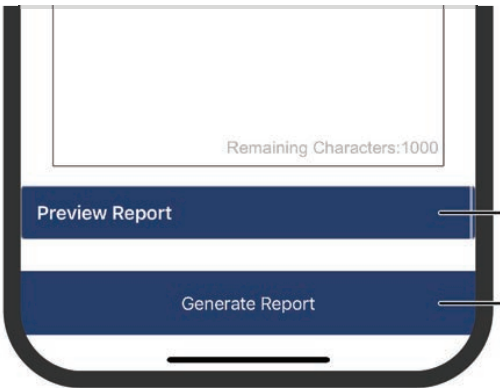

Figure 29

Figure 30

11. When an Excel report file is selected, the App will not generate a "Full Report" and automatically display the export/sharing options.
12. Select your required sending/export option.
13. Once the Excel File is exported/shared, the App will return to the recorded data screen.
14. Tap the < button twice to exit the "Generate Report" screen and resume normal operation.

2 Different parameters must be activated to correctly view the trend image.

15. When a Trend Image file is selected, the App will not generate a "Preview Report".
16. Tap the icon to display the export/sharing options.
17. Select your required sending/export option.
18. Once the Excel File is exported/shared, the App will return to the "Preview Report" screen.
19. Tap the < button to exit the "Generate Report" screen and resume normal operation.

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Appendix A: R1600 Setup Instructions

Setting up Volume Flow

The best practice used to measure in-duct airflow in residential and light-commercial HVAC is by doing a timed average traverse. The REED Smart Series App allows a user to set up the timed average traverse with the proper length and width dimensions of the duct.

1. Select the Volume Flow (Outlet) application view from the "Applications Selection menu". (See *Selecting the Application Type* section of this guide for additional details.)
2. While in the application screen, tap the ⚙ icon (Figure 31) to access the duct sizer setup menu. (Figure 32)
3. Select between "Single" and "Timed Average" volume flow measurements.
4. Select the applicable duct size and enter the dimensions.
5. Enter the % of free area. (The free area is the total area of an outlet minus the area that is restricted by grating or fins.)
6. Select the applicable duct system between "Return air" and "Supply air".
7. Tap "OK" to confirm your selections or tap "Cancel" to quit and resume normal operation.

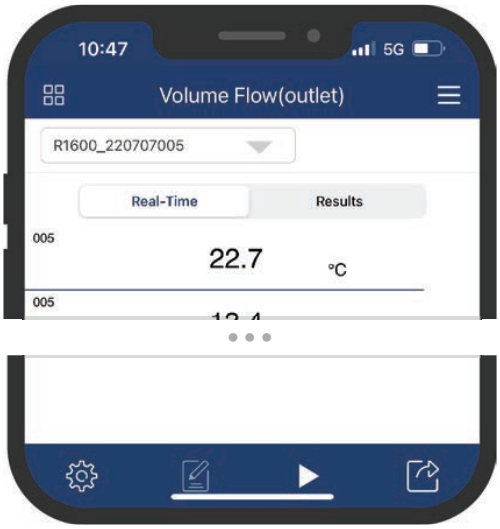

Figure 31

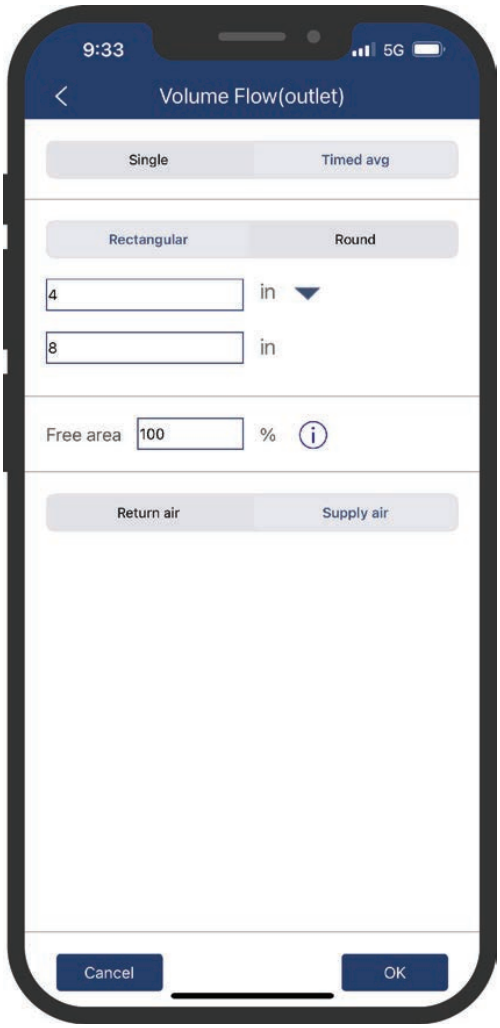

Figure 32

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