

TT ForceView User's Manual



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I) Overview

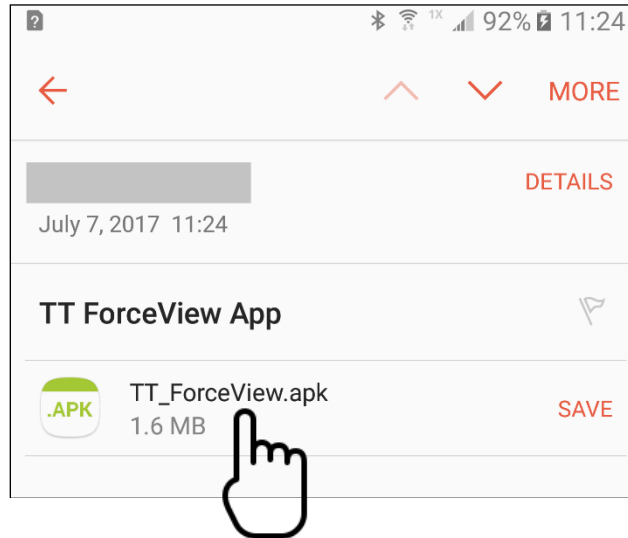
TT ForceView is an Android app for communicating to Toledo Integrated Systems load monitors from your smartphone or other Android device. Together with the Bluetooth Adapter it provides wireless convenience for data monitoring. Vital information such as peak load and alarms can be viewed. Load signatures can be viewed and stored in your device for future recall and analysis.

This manual explains how to install and use the TT ForceView Android app. It assumes that the Bluetooth Adapter has already been installed on the load monitor and paired with your Android device. If not, please refer to the Bluetooth Adapter Installation Instructions.

II) Installing the TT ForceView Android App

Note: These instructions are for the evaluation version of the TT ForceView Android App. The release versions of the app will be available on the Google Play Store.

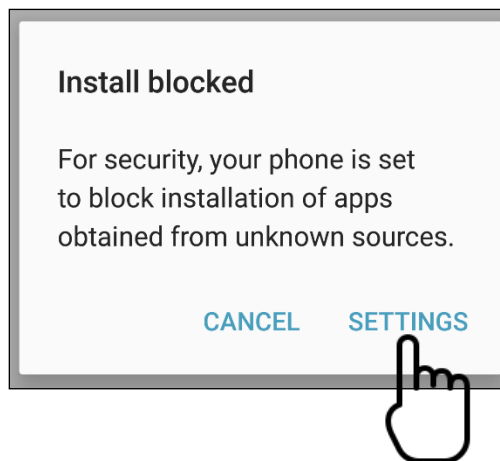
- 1) Open the email message containing the Android APK file attachment or download link.



- 2) Tap the file name to start the app installer.

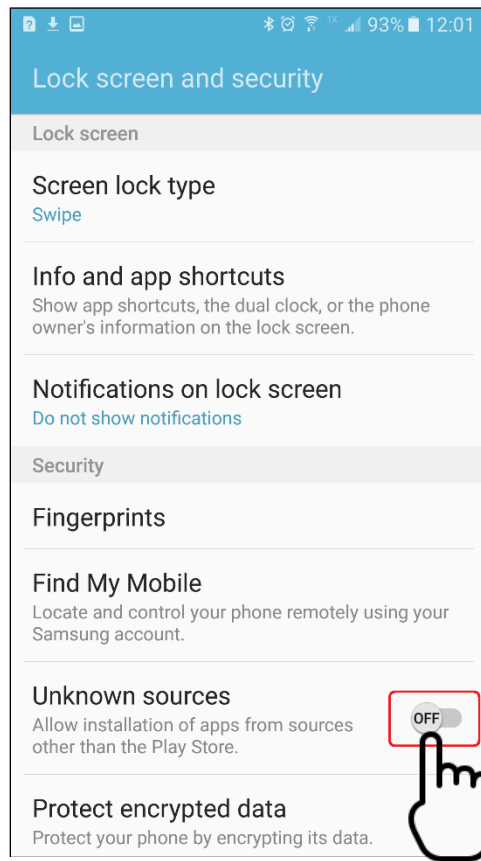
Note: In some cases, tapping the app will save the APK file to the device's download directory. If so, locate the APK file in the download directory and tap on it to start the installer.

You will receive the following message.

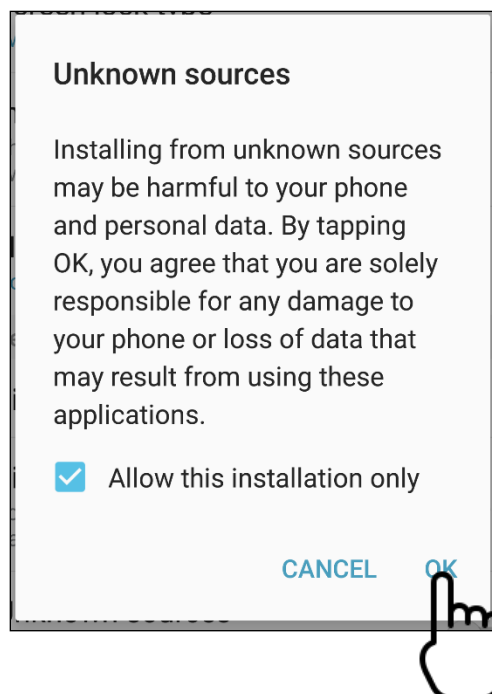


- 3) Tap SETTINGS to bring up the Security settings.

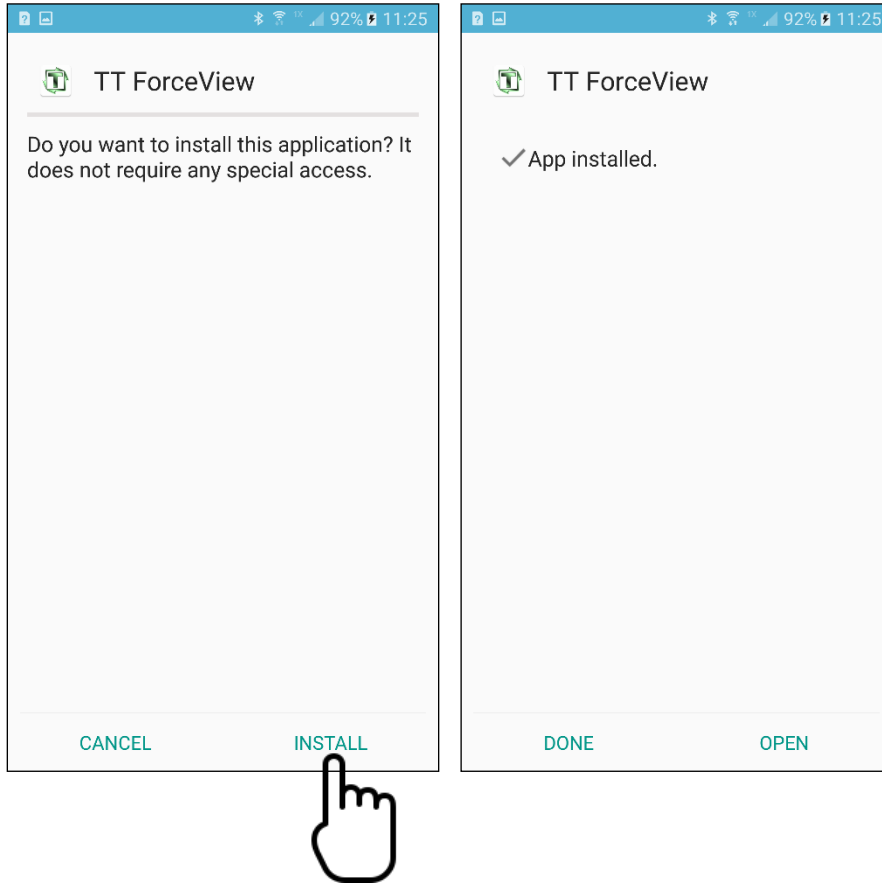
- 4) Find the “Unknown sources” selection and toggle it to ON.



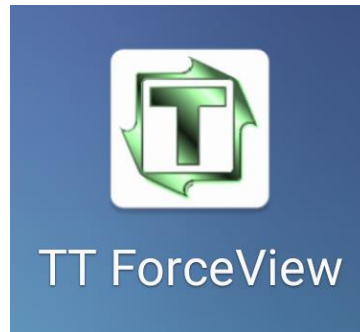
- 5) In the resulting warning message, make sure “Allow this installation only” is checked and tap OK.



6) Tap **INSTALL** on the next screen to confirm the installation.



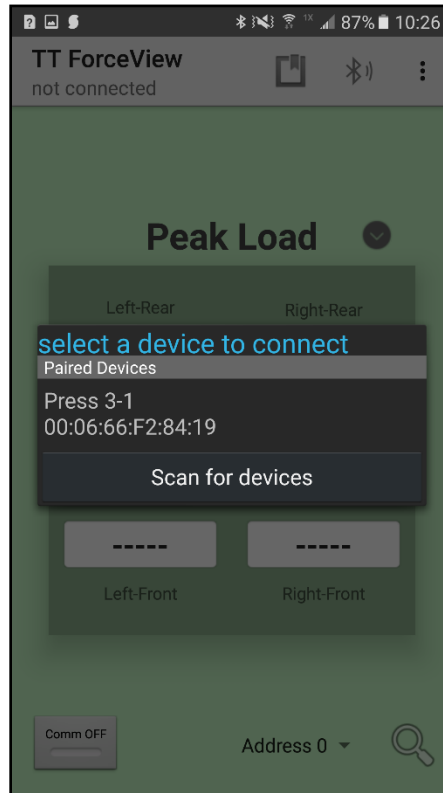
7) Tap **DONE** when finished or **OPEN** to start the app, or start it from the icon on the home screen.



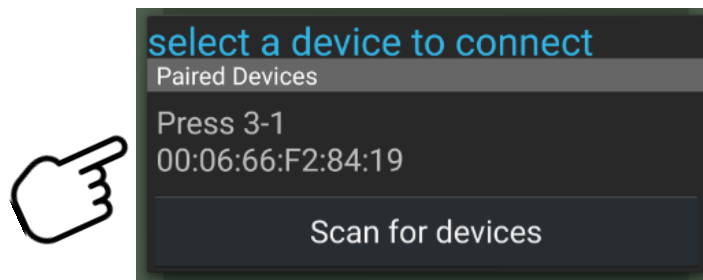
III) Using the TT ForceView Android App

A. Connecting to the Bluetooth Adapter

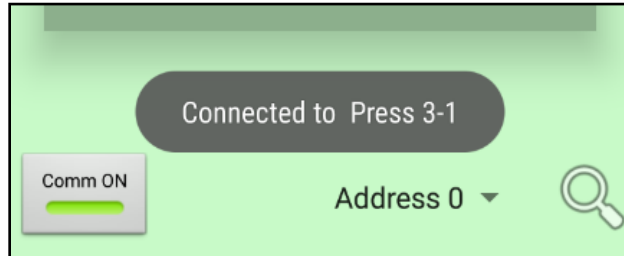
- 1) Open the TT ForceView app. The device selection screen appears.



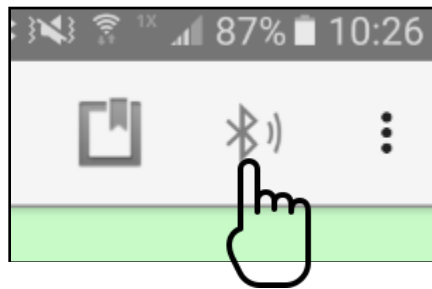
- 2) To communicate with the load monitor, you must first establish a connection to the Bluetooth Adapter. Tap the Bluetooth Adapter's name in the device list.



After a few seconds, you should receive a message that the device is connected.

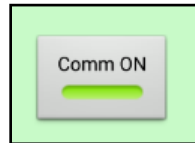


If the connection fails, make sure that you are within range of the Bluetooth Adapter (typically 10m or 33ft) and tap the Bluetooth icon at the top of the app to try again.

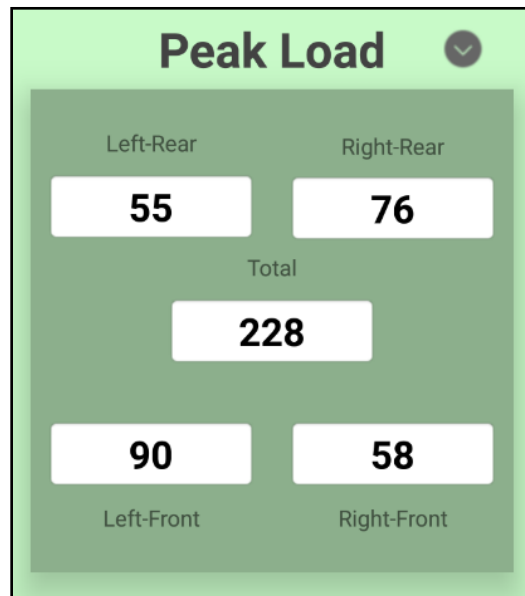


B. Establishing communication with the load monitor

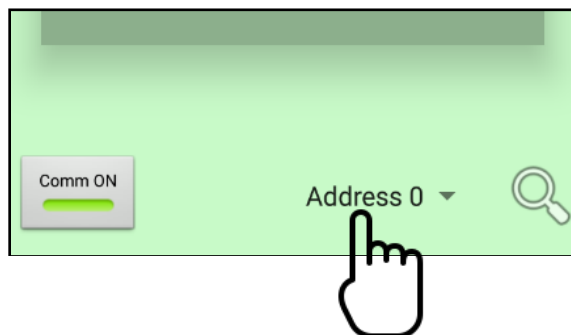
- 1) After connecting, TT ForceView will automatically attempt communication with the load monitor.



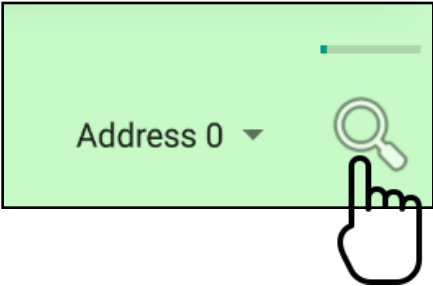
In most cases, the Peak Load values will update with the current values from the load monitor.



However, in some situations, the load monitor may have been configured with a non-default polling address. This is common when several load monitors are networked together. The polling address is a unique network address ranging from 0 to 31. If you already know the polling address, tap the Address dropdown menu at the bottom of the screen and choose the correct address.

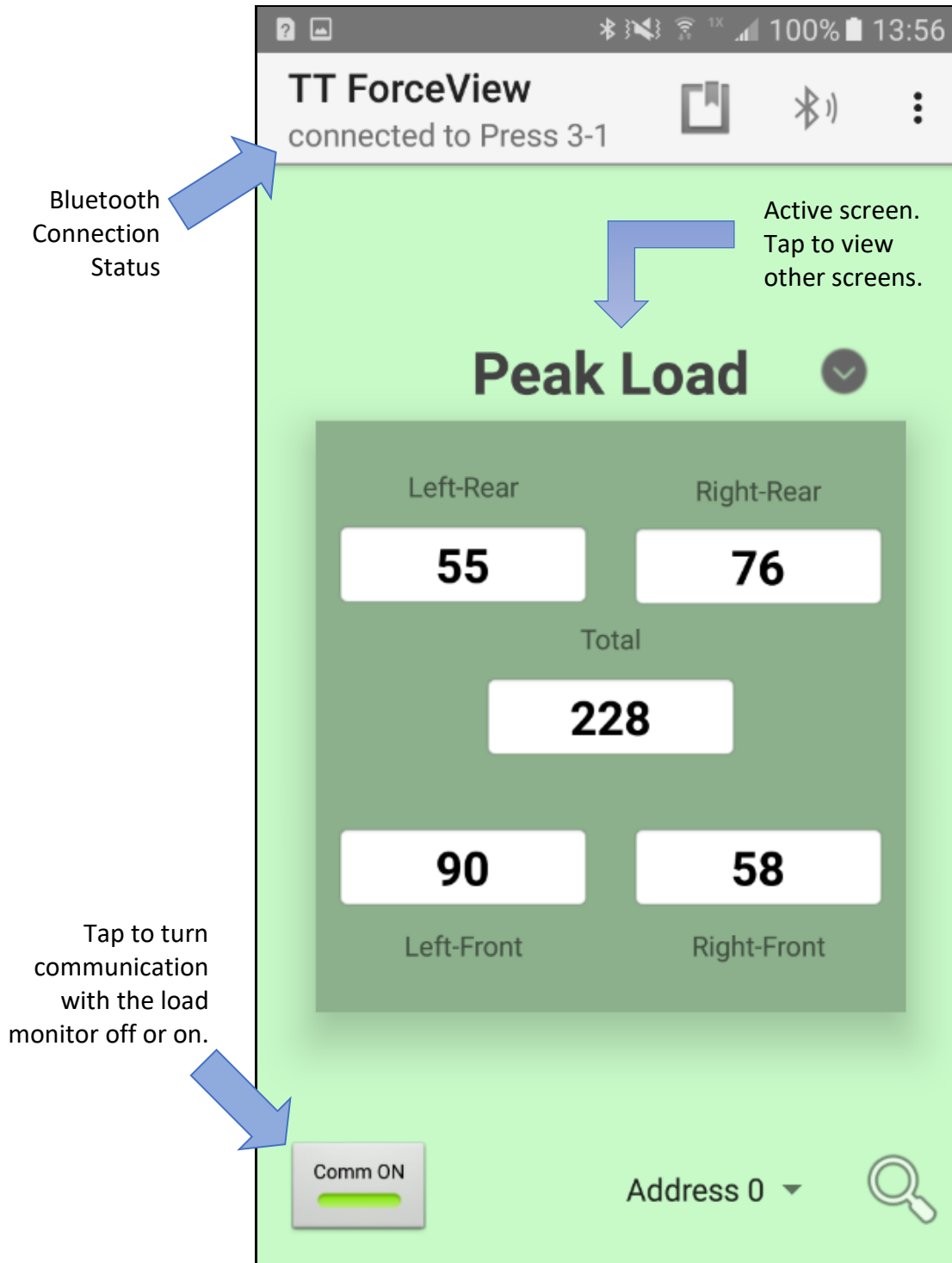


If you do not know the polling address, tap the **Search** button to begin searching. You will receive a message when the load monitor's address is found.



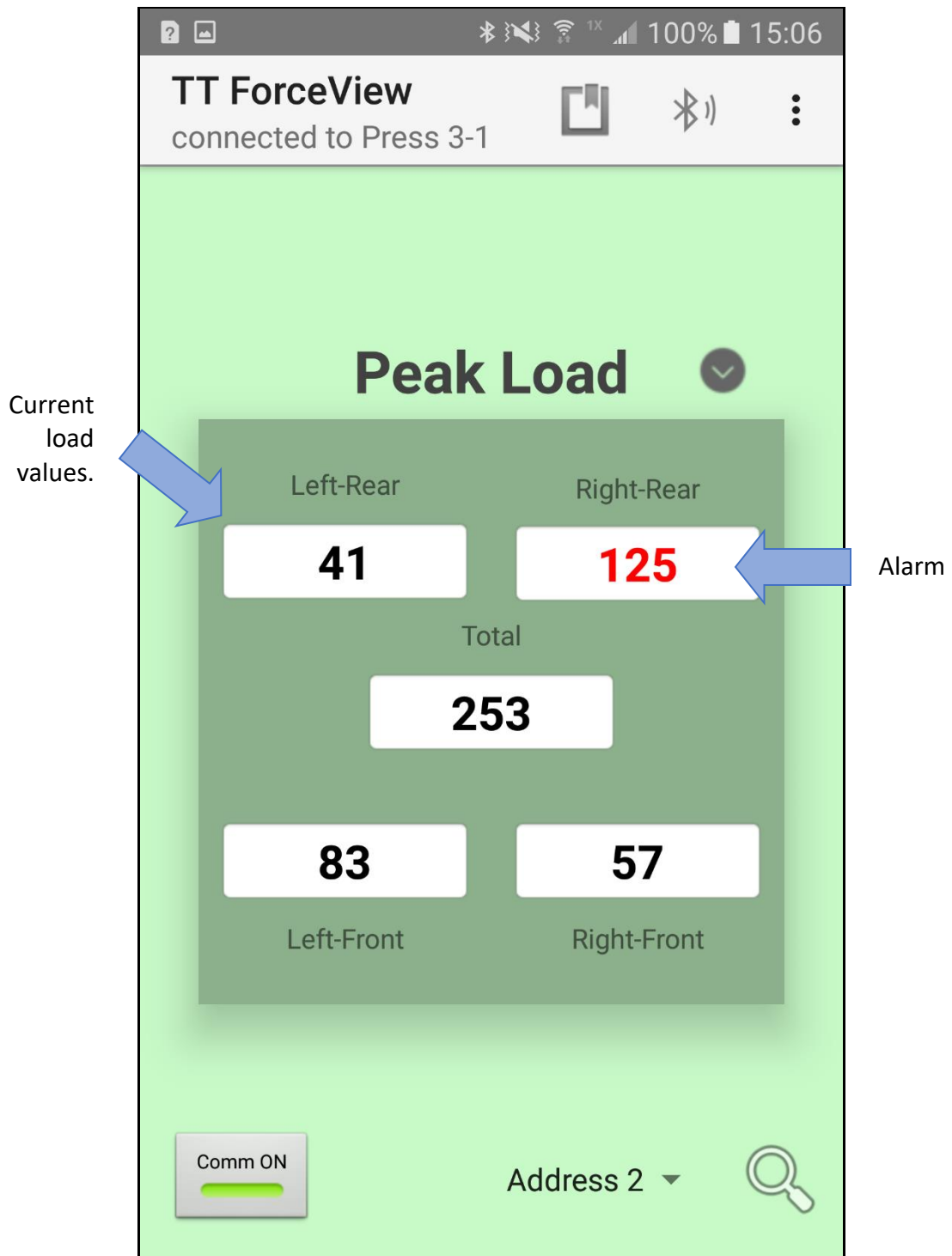
C. TT ForceView overview

Now that the Bluetooth adapter is connected and the app is communicating with the load monitor, take a moment to familiarize yourself with the various features of the screen.



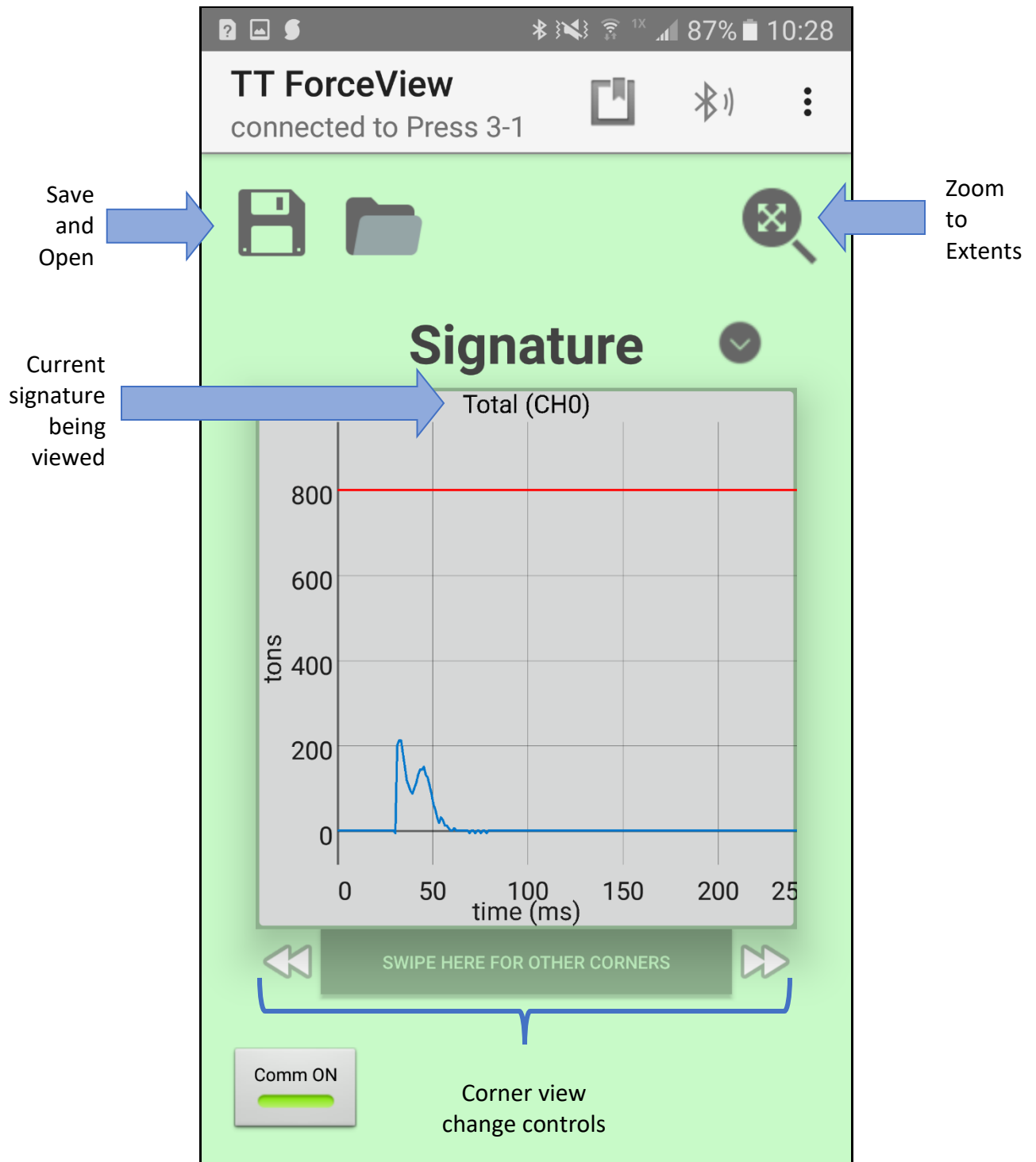
D. The Peak Load screen

The Peak Load screen displays the current load values for each of the press's corners and the total. A red load reading indicates an alarm.



E. The Signature screen

The Signature screen provides the ability to view load signals with intuitive zoom and scroll features. Signatures may be saved and recalled, as well.





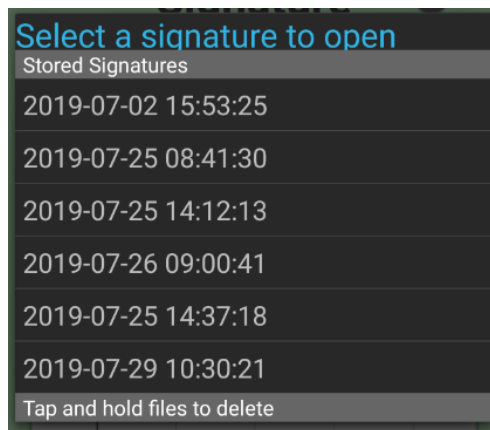
Note: The signature will continually update while the press is cycling. To pause, tap the **Comm** button at the bottom to turn communication off.

The Signature screen provides the following features:

- Swipe left or right below the signature graph, or tap the left/right arrows to cycle through the available corners.



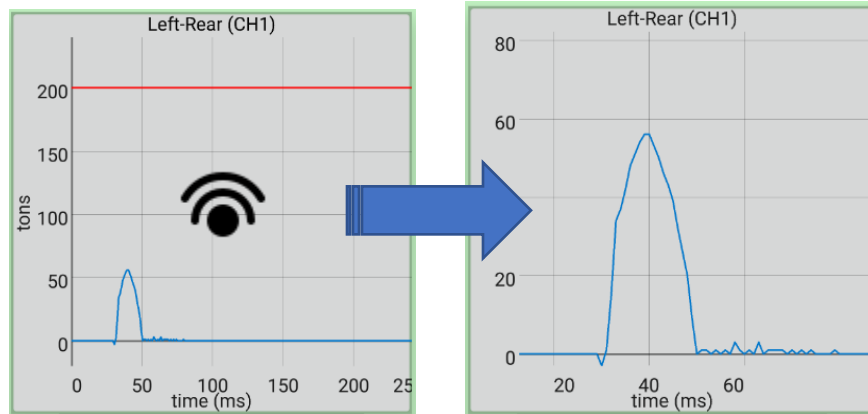
-  Tap the **Save** button at the top to automatically save the current signature to memory.
-  Tap the **Open** button to list all the stored signatures.



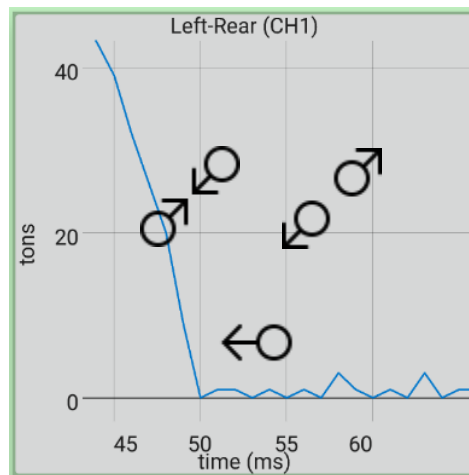
Tap one of the signature names to open it, or press and hold one of the names to delete it.

Communication is automatically paused when a stored signature is opened. Tap the **Comm** button at the bottom to turn communication back on when done viewing the signature.

- Double tap the signature graph to quickly zoom in on the currently displayed signal.



- Pinch and spread to zoom in/out and tap and drag to view different areas of the graph.

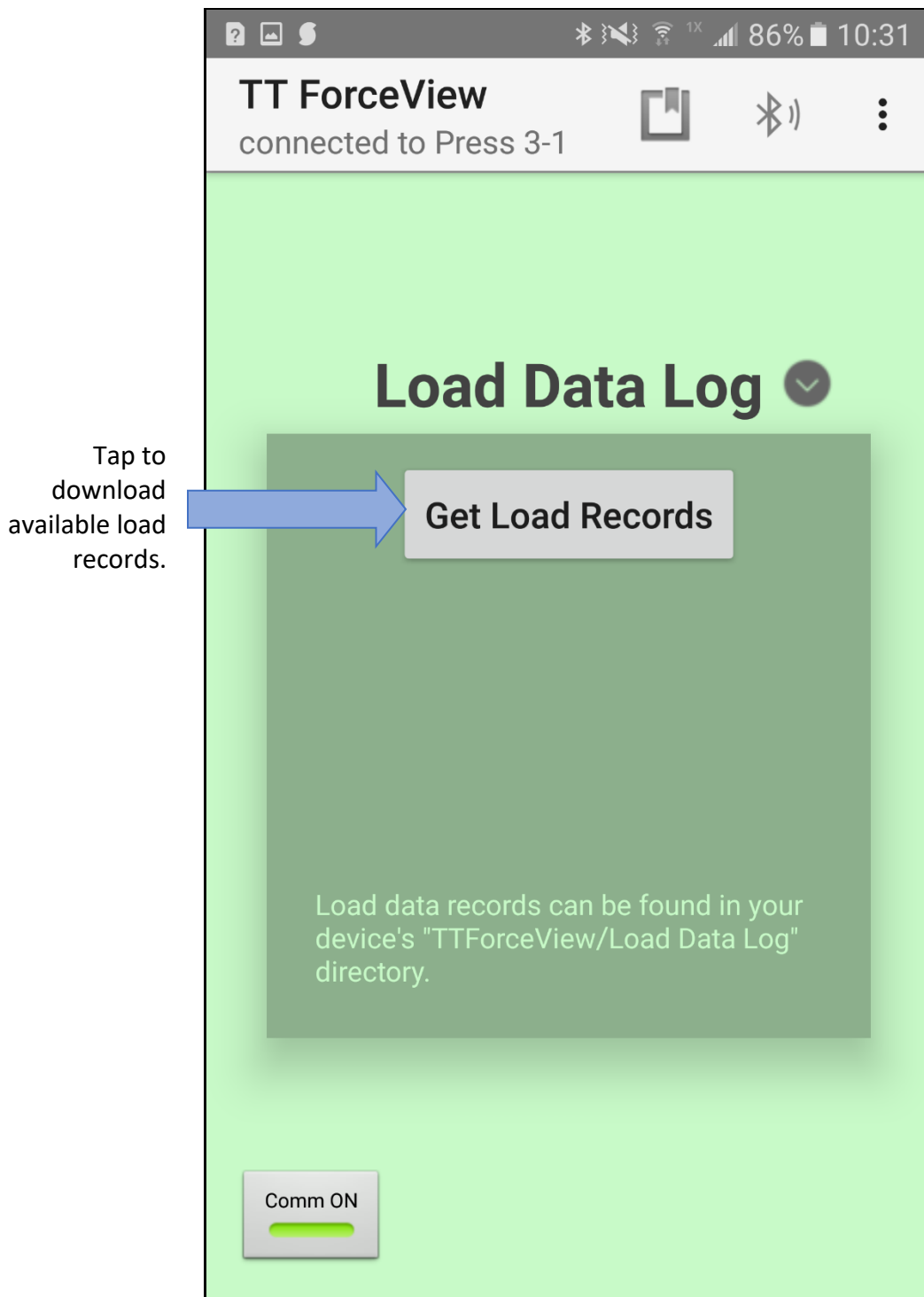


-  Tap the **Zoom-To-Extents** button to view the entire signature.

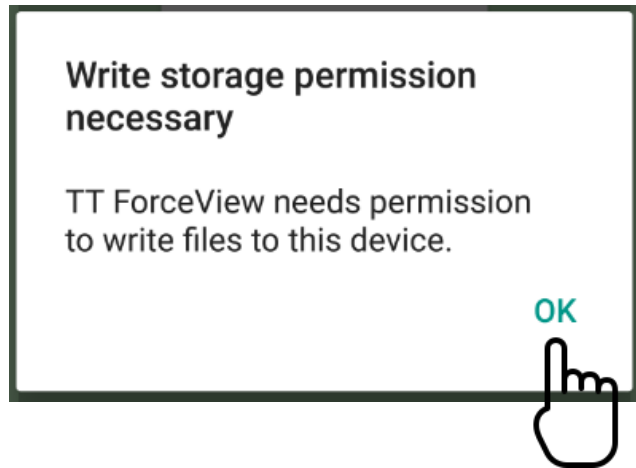
F. The Load Data Log screen

The Load Data Log screen is used to download a record of each hit made by the press. This record is then saved to the device as a comma-separated-value file (.csv) so that it can be analyzed.

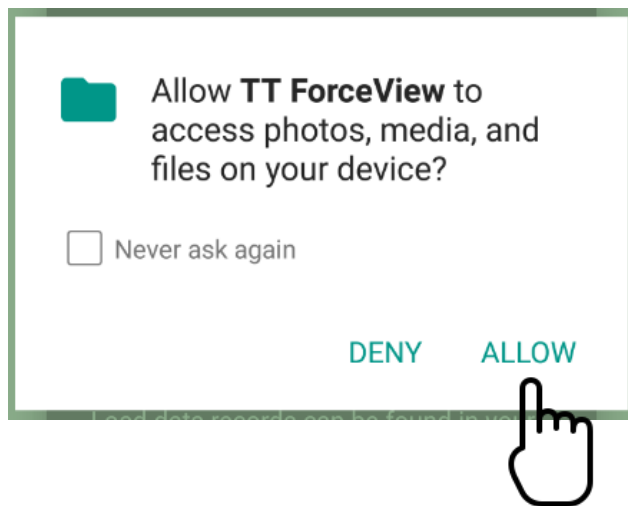
Note: The load monitor must also support the Load Data Log feature.
Not available on all load monitors.



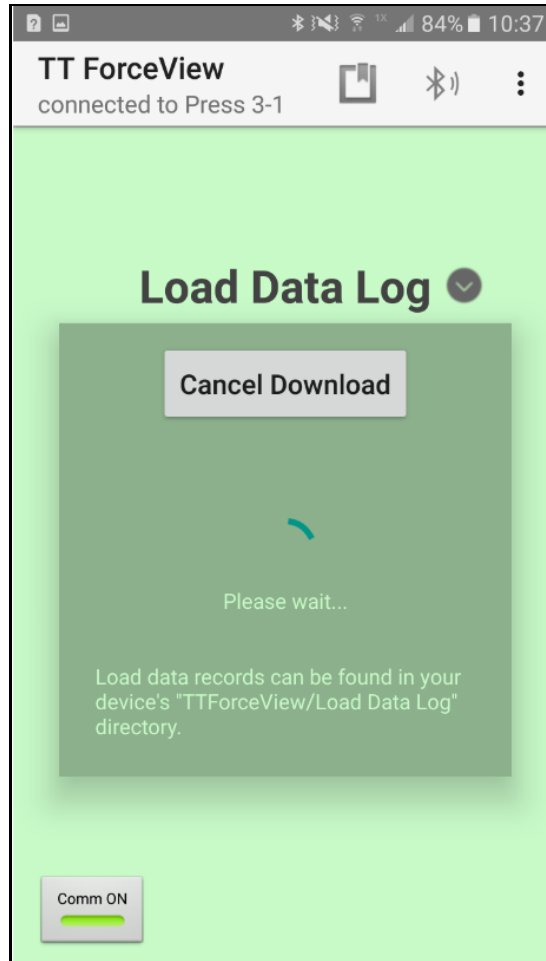
- In order to save the Load Data Log, TT ForceView must have permission to write to your device. The first time the **Get Load Records** button is tapped, the following warning appears.



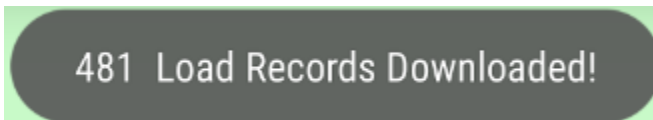
Tap OK, then ALLOW to grant access.



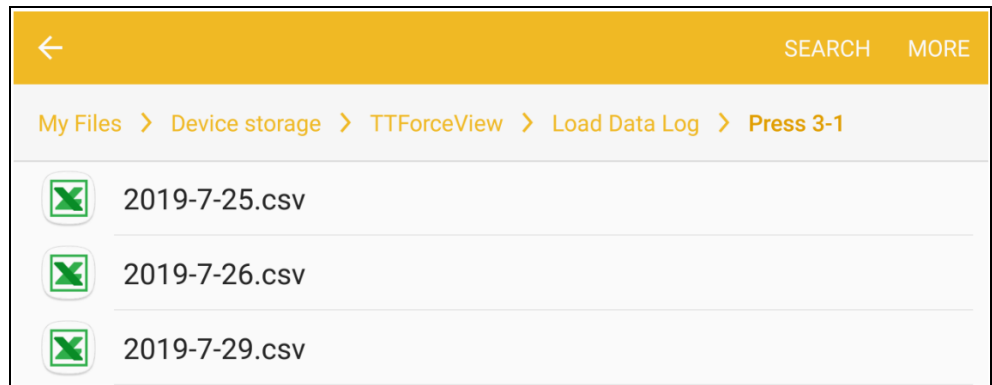
- Once permission has been granted, tap the **Get Load Records** button to begin downloading. Depending on the number of available records stored on the load monitor, the download may take several seconds to complete.



You will see the following message when the download is complete.



- The Load Data Log is saved to your device in the following location:
Device storage / TTForceView / Load Data Log / [Bluetooth Adapter Name]



- The load records are saved in separate .csv files according to the date when they occurred.
- Typical load records consist of a timestamp, the load for the total and each corner, and the job number that was loaded at the time.

	A	B	C	D	E	F	G	H
1	D	2019/7/30 13:09:18	220	49	76	84	52	5
2	D	2019/7/30 13:09:18	225	47	77	89	57	5
3	D	2019/7/30 13:09:18	234	47	77	92	61	5
4	D	2019/7/30 13:09:18	217	49	75	86	52	5
5	D	2019/7/30 13:09:18	227	47	76	89	57	5
6	A	2019/7/30 13:10:09	239	51	78	90	61	5
7	A	2019/7/30 13:10:09	215	48	75	86	56	5
8	A	2019/7/30 13:10:09	212	47	75	86	53	5
9	A	2019/7/30 13:10:10	230	50	76	90	61	5
10	A	2019/7/30 13:10:10	221	52	75	87	54	5
11	A	2019/7/30 13:11:43	218	54	75	85	49	5

Timestamp is Actual or Downloaded Timestamp CH0 (Total) Load CH1 (LR) Load CH2 (RR) Load CH3 (LF) Load CH4 (RF) Load Job #

Note: Some load monitors do not support internal timestamps. Those record entries are marked with a “D” to indicate that the timestamp is the when the record was **downloaded**. Entries marked with “A” indicate that the timestamp is the **actual** date/time that the hit occurred.

Note: If you open the .csv file with a spreadsheet program please be aware that the format of the timestamp will depend on the formatting of the column/cells. The above example is in **YYYY-M-D hh:mm:ss** format.