

LEval with Jackson Strength System for Android™

User's Manual



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Introduction

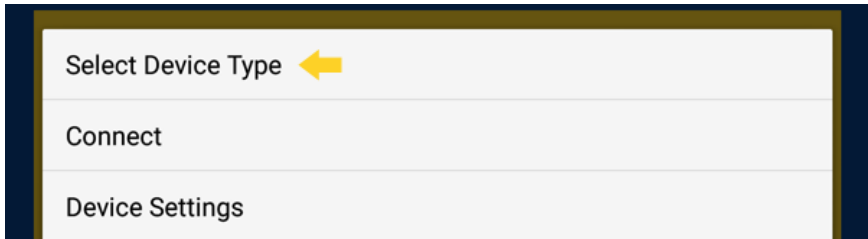
Thank you for downloading the Lafayette Evaluation (LVal) app. The LVal app allows users to connect an IOS or Android device to specific Lafayette Instrument products. One of these products is the Model 32728 Jackson Strength System. The LVal app allows Jackson users to manage test batteries, subjects, and results.



Select Device Type

Select Device Type from the Drop Down Menu

Open the navigation menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Select Device Type** from the menu.



Select a Device Type

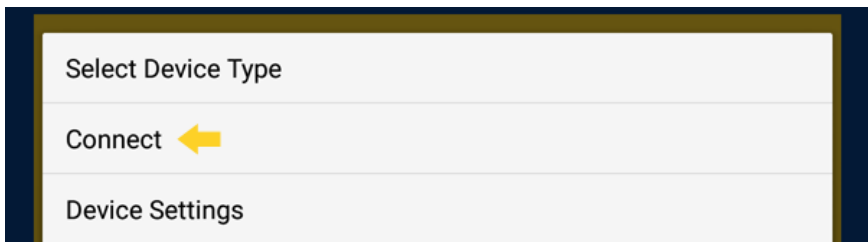
After selecting **Select Device Type**, a selection box will open allowing you to choose between available device types. Use the drop down to select which device you wish to connect. Jackson Strength System was chosen for this example.

After selecting a device type, the selected device will be loaded at the top of the screen.

Connecting to a Device

Select Connect from the Drop Down Menu

Open the drop down menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Connect** from the menu.



Select a Device to Connect

After selecting **Connect**, a new page will open allowing you to scan for available devices. All paired devices will automatically be displayed in the list. If the device you are looking for is not available in the list, tap the **Scan** button at the bottom of the dialog (see *Scan for a Device* for more information). Selecting a device that is not paired will cause a dialog box to appear asking you to pair with the device.

Note: The device PIN for a Jackson Strength System will be 32728. Tapping the **OK** button will pair the device.

Select a device to connect or press scan.

Paired Devices

Vert 12345XXX

LI Jackson

VertiMetric D

VertiMetric B

Scan for a Device

Scanning for a device will return a dialog box with two sets of devices: "Paired Devices" and "Other Available Devices" (other Bluetooth devices). Previously paired devices will be listed in the top section.

Selecting a device that is not paired will begin steps to pair the device (see *Select a Device to Connect* for more information).

Connection Successful

After selecting a device and pairing the device (if necessary), the application will attempt to connect to the device. Once the device has successfully connected, the Connection Bar (located below the Action Bar) will turn from red to blue, and the name of the connected device will appear. The device's current battery level is also noted by the battery icon in the Connection Bar.

connected to LI Jackson



Device Settings

Open the drop down menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Device Settings** from the menu. All Device Settings are available on a single page. Once all the settings are correct, tap the **Accept Changes** button. The following explains the meaning of each setting.

Preparation Duration: 1 second



Test Duration: 3 seconds



Force Units

Pounds

Accept Changes

Cancel

Preparation Duration

Preparation Duration is the time between when a test is started and when the results begin recording. This section of data is ignored in order to prevent data skewing as a result of beginning to pull on the bar. From the Settings page, see **Set Preparation Duration**.

Test Duration

The test time is the total time of of the test not including any preparation duration. From the Settings page, see **Test Duration**. A slider control will allow you to select from 0 to 10 seconds.

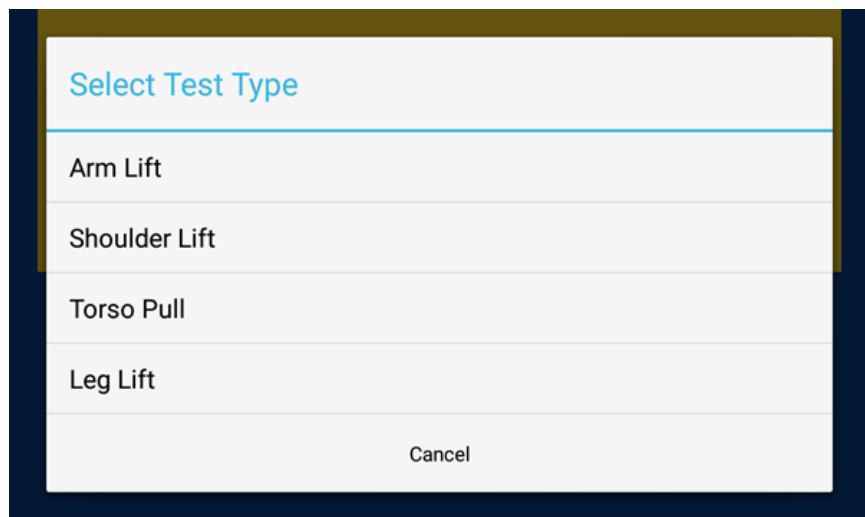
Unit of Force

From the Settings page, see **Unit of Force**. A select box will appear allowing you to select the desired unit (pounds or kilograms) of force.

Test Settings

Select a Test

Tap the **Select a Test** icon from the Test Action Bar at the bottom of the application. A dialog box will appear with the available tests to select.



After selecting a test, the selected test and the default duration of 3 seconds will be displayed below the Connection Bar.



Get Test Zero

Tap the **Get Test Zero** icon from the Test Action Bar at the bottom of the application.



Once the test zero is calculated, a toast message will appear stating "Test Zero Calculated".

Running a Test

After getting test zero, selecting a test to run, setting the preparation duration, setting the test duration, and selecting the unit of force, a test may be ran. To start a test select the play button from the Test Action Bar at the bottom of the application.

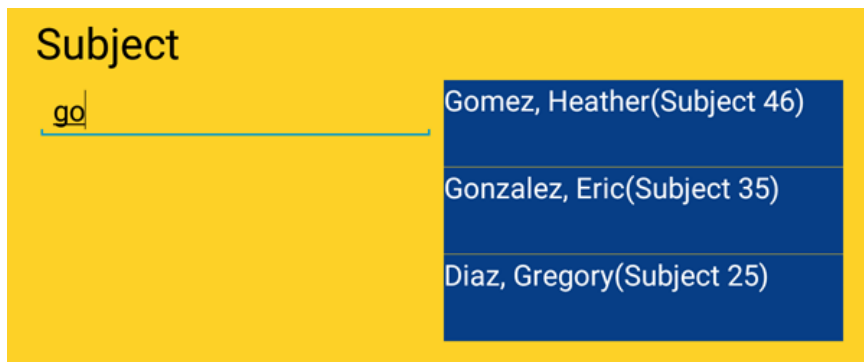


Saving a Test

After running a test, the results may be saved. To save a test tap the **Save** icon from the Test Action Bar at the bottom of the application. A Save Test Results dialog box will appear requesting you to select the Organization and Subject where you would like to save the results. Selecting an Organization filters the available subjects.



To filter the Subject list by Organization, tap the drop down. Subject is a required field, and it can be populated by typing a name or beginning to type a name and selecting it from the populated list.

A screenshot of a yellow rectangular area representing a form. At the top left, the word "Subject" is written in black. Below it, a text input field contains the text "go" with a blue underline. To the right of the input field, a dark blue dropdown menu is open, displaying three white text entries: "Gomez, Heather (Subject 46)", "Gonzalez, Eric (Subject 35)", and "Diaz, Gregory (Subject 25)".

Subject
Gomez, Heather (Subject 46)
Gonzalez, Eric (Subject 35)
Diaz, Gregory (Subject 25)

Note: The Save Test form will not accept Subject names that are not already saved as subjects. The name listing that appears in blue to the right of the Subject field will scroll vertically if the name list is too long for the available space.

Once the desired Subject and Organization are selected, tap on the **Save Results** button.

Tapping the **Save Results** button will close the dialog box and a toast message will appear stating "Test Results Saved". All force values visible on the main screen will be cleared, and the unit will be ready for additional testing.

Clear Test Results

After running a test, the results can be cleared by tapping the **Clear Results** icon in the Test Action Bar at the bottom of the application.



Note: It is not necessary to clear the results before running another test.

Battery Status

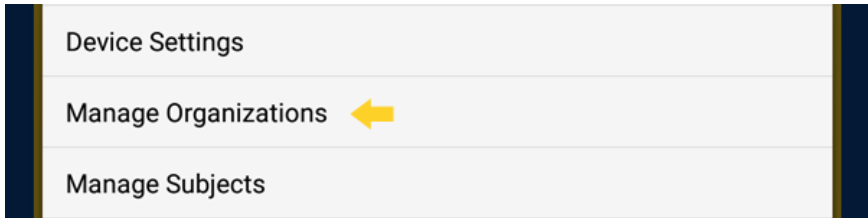
After connecting to a device, the device's battery status will be displayed in the Connection Bar. The app will update the status of the battery every 60 seconds.



Manage Organizations

Manage Organizations Dialog Box

Open the navigation menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Manage Organizations** from the menu.



Add Organizations

After selecting **Manage Organizations** from the menu, a new page will appear with all organizations listed. Tap the **Add** icon to add a new Organization.



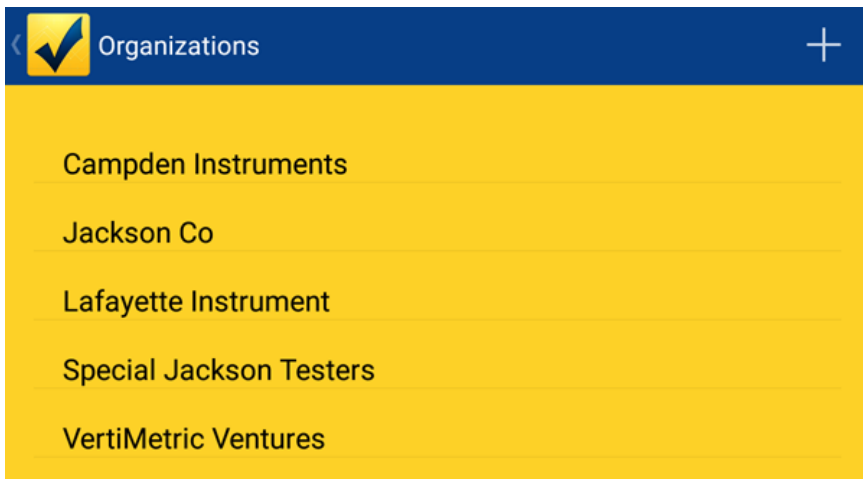
A new page will appear with a text area entitled "Organization Name". Type in the Organization Name then tap the **Save** icon.



Once the Organization is saved, a toast message will appear stating "Saved Organization", and the Organization list will be re-populated to include the new Organization.

Edit Organizations

After selecting **Manage Organizations** from the menu, a new page will appear with all organizations listed.



Tap the desired Organization and another page will appear. Type in the new or modified name and click the **Save** icon.



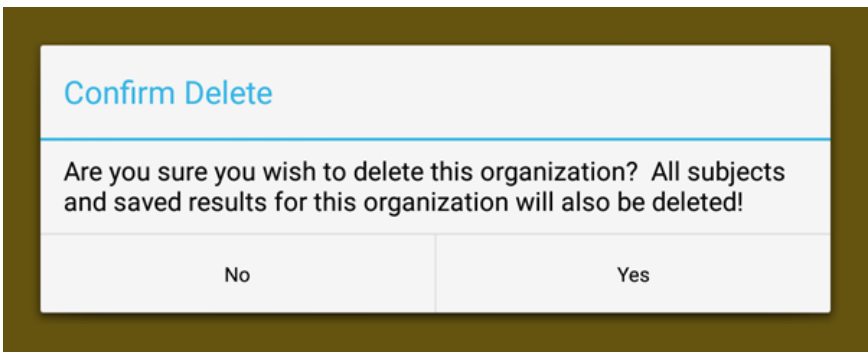
Once the Organization is saved, a toast message will appear stating "Saved Organization", and the Organization list will be re-populated to include the new Organization.

Delete Organizations

After selecting **Manage Organizations** from the menu, a new page will appear with all organizations listed. Tap the desired Organization and another dialog box will appear. Tap the **Delete** icon on the dialog box menu bar.



A dialog box will open asking you to confirm the deletion.

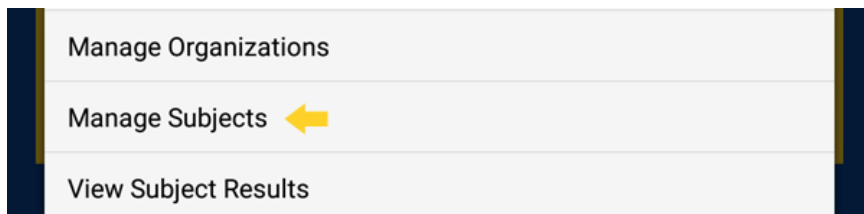


Once the deletion is confirmed, a toast message will appear stating "Organization Deleted", and the Organization list will be re-populated without the deleted Organization.

Manage Subjects

Manage Subjects Dialog Box

Open the navigation menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Manage Subjects** from the menu. A new page will appear with all Subjects listed. Subjects may be filtered by using Organization drop down.



Add Subjects

After selecting **Manage Subjects** from the menu, a new page will appear with all the Subjects listed. Tap the **Add** icon to add a new Subject.



A dialog box will appear with a textareas entitled "First Name", "Last Name", "More Info", and "Organization". Selecting "New Organization" from the Organization spinner will bring up the New Organization dialog box. Type in the Subject Name then tap the **Save** icon.



Once the subject is saved, a toast message will appear stating "Saved Subject", and the Subject list will be re-populated with the new Subject.

Edit Subject

After selecting **Manage Subjects** from the menu, a new page will appear with all the Subjects listed. A new page will appear with all Subjects listed. Tap the Subject and another page will appear.

Filter Subjects by Organization

All Organizations

Subjects

Bailey, Jacob

Baker, Madison

Carter, Gregory

Clark, Ralph

Cruz, Andrea

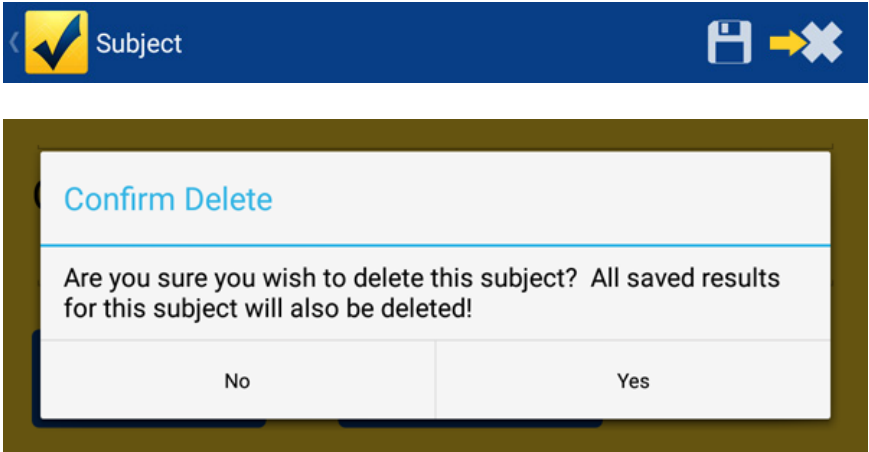
Tap the **Save** icon to complete the edit.



Once the subject is saved, a toast message will appear stating "Subject Saved", and the Subject list will be re-populated with the edited Subject.

Delete Subject

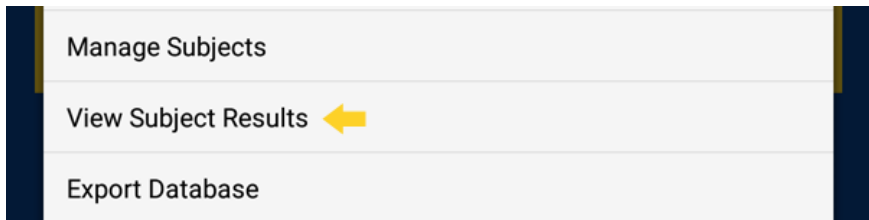
After selecting **Manage Subjects** from the menu, a new page will appear with all the Subjects listed. Tap the Subject and another dialog box will appear. Tap the **Delete** icon on the dialog box menu bar. A dialog box will open asking you to confirm the deletion.



Once the deletion is confirmed, a toast message will appear stating "Subject Deleted", and the Subjects list will be re-populated without the deleted Subject.

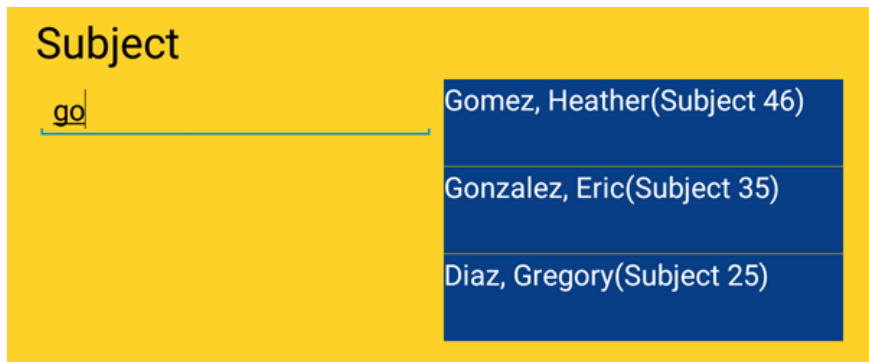
View Subject Results

Open the navigation menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **View Subject Results** from the menu.



A new page will appear with search criteria required for the Subject Results. Submitting the form without filtering by Organization will return all results that fit between the chosen Start and End Dates.

Use the "Organization" drop down to filter the Subjects by Organization; typing in the "Subject" field populates a selection list of relevant Subject Names (filtered by the current organization).



Note: The name listing that appears in blue to the right of the Subject field will scroll vertically if the name list is too long for the available space.

Tap the “Test types” drop down to open a dialog box with a list of all Test types. Select an Test by tapping on the Test’s name. Once selected, the dialog box will close, and the selected Test type will be shown in the drop down. Select a date range, and tap the **Filter Results** button.

A list displaying all results within the selected filter criteria will appear. To view details for specific results, tap the desired record in the list. Once selected, a new page will appear with additional details. To view a Force Over Time chart for the selected result, tap the **Chart** icon.

Note: See the *Force Over Time Chart* section for more details about the details of the Force Over Time chart.



From the Specific Subject Results dialog box it is also possible to navigate back to the filtered results (tap the **Back** icon) or Delete the Result (tap the **Delete** icon). Selecting to delete the result will require a Confirmation. Once deleted, the filtered results will be refreshed.



A print icon is available at the top of the result and the Force Over Time chart.



Note: See the *Print Options* section for more details about how to setup your device to print.

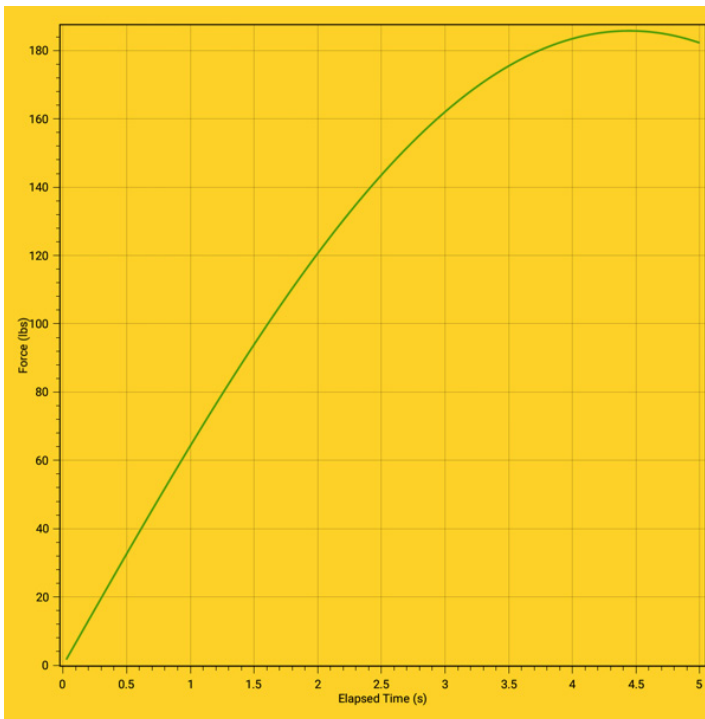
Force Over Time Chart

The Force Over Time chart is available from the View Subject Results area. For more information about this section, see the *View Subject Results* section.

To view the Force Over Time chart for a selected result, tap the **Chart** icon.



The Force Over Time chart plots the force exerted by elapsed time in seconds. The Subject's Name and Organization and the Test Type and Date are shown.



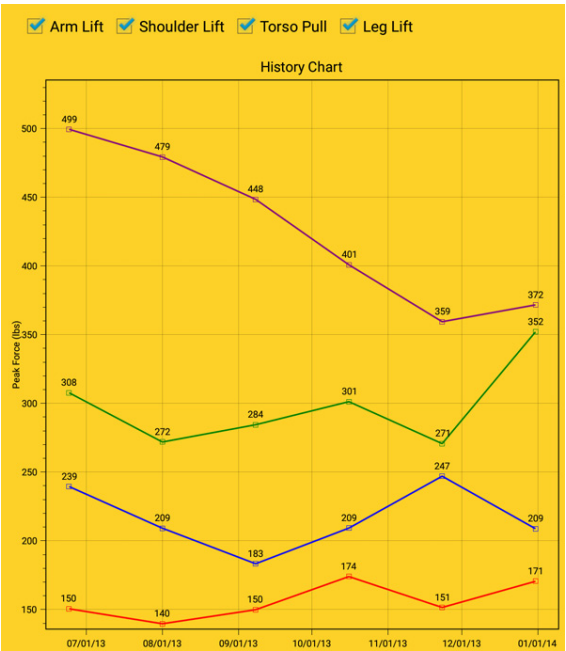
History Chart

Open the drop down menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Manage Subjects** from the menu.

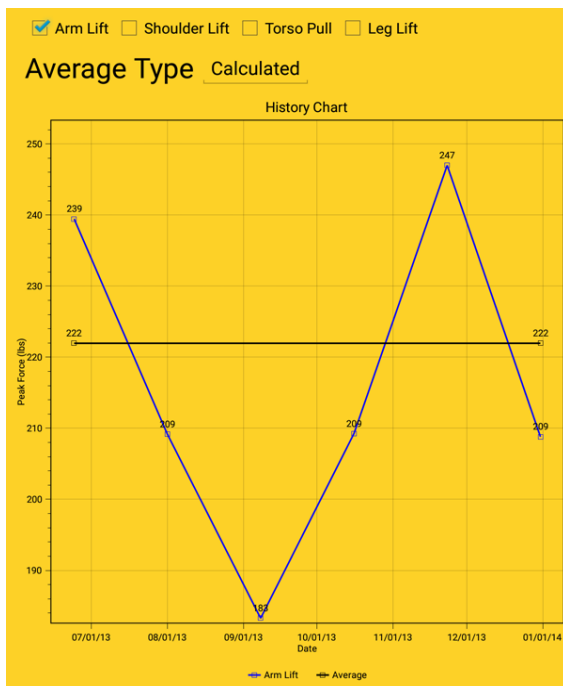
A new page will appear with a "Select organization" drop down to filter the Subjects; tap the desired subject's name to open a new page with the Subject's information. Tap on the **History Chart** button at the bottom to view the chart.

From the History Chart page, check boxes are available for each test type (Arm Lift, Shoulder Lift, Torso Pull, and Leg Lift). Checking the check box causes the corresponding data to be plotted on the chart.

☒ Arm Lift ☒ Shoulder Lift ☒ Torso Pull ☒ Leg Lift



When a single Test Type is chosen, a drop down for Average Type is available. The Average Type defaults to None.



Note: Selecting Calculated causes the displayed average to be calculated by the data from the chosen Organization. Selecting Manual causes a number picker to be displayed. Either tap on the value and use the number pad or use the +/- buttons to change the value. The Average may be any value from 1-1000.

A print icon is available at the top of the chart.

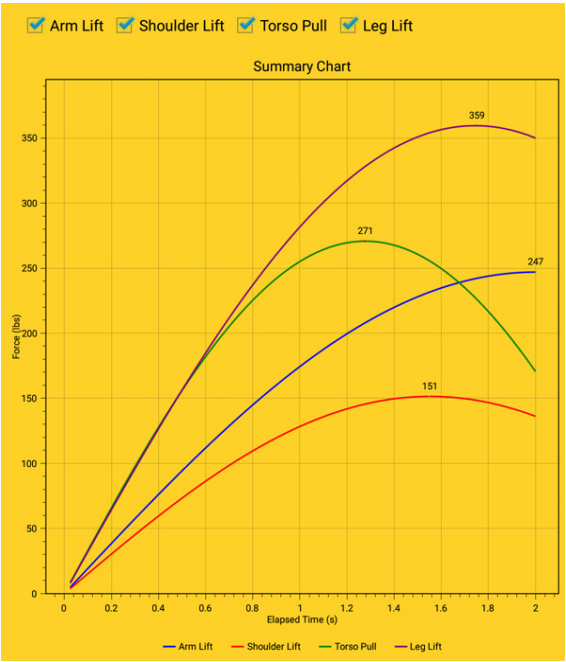


Note: See the *Print Options* section for more details about how to setup your device to print.

Summary Chart

Open the drop down menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Manage Subjects** from the menu.

A new page will appear with a “Select organization” drop down to filter the Subjects; tap the desired subject’s name to open a new page with the Subject’s information. Tap on the **Summary Chart** button to view the available Test Dates. Tap on an available Test Date to see the Chart.



From the Summary Chart page, check boxes are available for each test type (Arm Lift, Shoulder Lift, Torso Pull, and Leg Lift). Checking the check box causes the corresponding data to be plotted on the chart.

A print icon is available at the top of the chart.

Note: See the *Print Options* section for more details about how to setup your device to print.



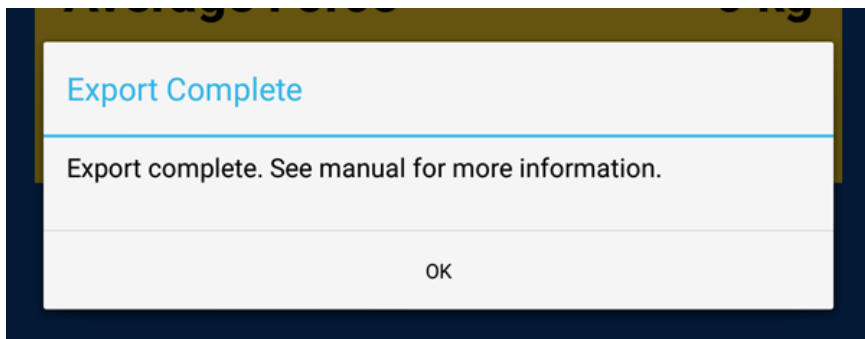
Export Database

Open the drop down menu by tapping the Action Bar Drop Down Menu in the upper right corner of the screen. Select **Export Database** from the menu.



A toast will notify the user that export has started, and the screen will turn white temporarily.

A dialog box will appear confirming the database (.CSV format) has been exported.



The database can be found in the **External Storage** area where application data is stored. For this example (Google Nexus 7 Tablet), the path "Storage > sdcard0 > Android > LEval" was used. The exported file can be accessed via PC connection (or alternatively through the use of a 3rd party file manager) by navigating to "[computer-name]\[tablet-name]\Internal storage\Android\LEval".

Note: There are many popular file managers available in the Google Play store; Lafayette Instrument recommends that users research which one would work best for his/her organizational needs.

Print Options

The Android platform allows printing through several functions. The print dialog allows connections for Network Printers, Cloud Printers, Printing to Google Drive, and also printing to .PDF files. For more information regarding printing to your network printer, read the printer's documentation.

Printing to Google Cloud Print registered printers:

<https://support.google.com/cloudprint/answer/1686197?rd=1>

Printing to Google Cloud Print Ready Printers:


<http://www.google.com/intl/en/cloudprint/learn/printers.html>

To print to a .PDF file, select "Save as PDF" from the print dialog box, and tap Print button. The print dialog will direct you to name the pdf and then save it in the Downloads area.

Contact Support

In the event of an unexpected error or by choosing **Contact Support** from the Action Bar drop down, the user will be prompted to submit a report to Lafayette Instrument Company.

Export Database

Contact Support 

Show Manual

A short form will appear asking the user to include contact information and any comments regarding the issue. The form can be filled out by tapping in each field and entering the applicable information individually. When completed, the form may be sent to our team of software engineers by tapping the **Submit** button.

Icon Glossary

The following icons can be found in the Jackson Strength System interface of the LEval app. See the section corresponding to the icon for more information.



Action Bar Dropdown: Tapping this icon brings up the main dropdown navigation for the app.



Device Battery Indicator: Non-tappable icon that shows the current status of the connected device's battery.



Test Type: Tapping this icon brings up a listing of available test types for the Jackson Strength System.



Set Device Zero: Tapping this icon sets zero measurement for the connected Jackson Strength System.



Run Test: Tapping this icon begins the selected test type with the chosen parameters.



Save Test Results: Tapping this icon brings up a form to select a subject and save the previous test results.



Clear Test Results: Tapping this icon clears previous test's results without saving.



Add: Tapping this icon brings up a form to add a new item.



Save: Tapping this icon saves the current item.



Delete: Tapping this icon deletes the current item. Deleting a subject removes all test results for that subject. Deleting an organization removes all subjects and test results for that organization.



Force-Over-Time Chart: Tapping this icon brings up a Force-Over-Time Chart for the chosen test results.



Print: Tapping this icon brings up a print dialog box.

End-User License Agreement

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Lafayette Instrument Company - SOFTWARE LICENCE AGREEMENT

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- 9. SEVERABILITY** - If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.
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