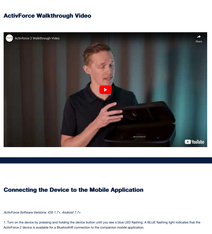
ActivForce provides real-time measurements to quantify progress in strength and mobility training programs. ActivForce 2 functions as a handheld device to provide force and angle measurement when connected to an easy-to-use mobile companion application. Download the free ActivForce companion application from the Apple or Google Play store.

ActivForce Kit Components

- ActivForce 2 Device
- ActivForce Mobile Application
- ActivForce Dashboard
- Rounded Pad
- Arched Pad
- Foam Insert
- Silicone Cover
- Hand Strap
- Leg Strap
- Belt
- Belt Loop Plate
- Custom Carrying Case

ActivForce Walkthrough Video



Connecting the Device to the Mobile Application

ActivForce Software Versions: iOS 7.7+, Android 7.1+.

1. Turn on the device by pressing and holding the device button until you see a blue LED flashing. A BLUE flashing light indicates that the ActivForce 2 device is available to a Bluetooth connection to the companion mobile application.

2. Bluetooth needs to be turned ON for the phone or tablet. If it is OFF, the app will remind you to turn it ON.

3. In the ActivForce app, start a measurement or select "Connect Device" in the settings menu. A list of available devices will be shown in the app. Tap "Connect" next to your ActivForce 2 device in the list.

4. When the Bluetooth connection is established, the device LED will flash green periodically. A GREEN flashing light indicates the ActivForce 2 device is connected to the companion mobile application.

5. The app offers two main types of tests and associated reports:

Force Measurements: Strength tests with left and right side options that report measurements in pounds, kilograms, or Newtons.

Range of Motion Measurements: Active and passive options to obtain angle measurements in 3D spaces.

A Settings menu is available on test parameters such as test duration, number of tests, and measurement units. A "Contact Us" page is also available to send a message to ActivForce Customer Support.

6. Turn off the device by pressing and holding the button until you see a red LED blink. Multiple NEO continuous flashing lights indicate a low battery charge level and that the battery needs replacement. A single NEO flash indicates that the device has been turned off.

Note: Always start the app and pair the device through the in-app "Connect" dialog in the app. Pairing the device through your mobile device's Settings screen without pairing in the app will result in an error. If a pairing error occurs, close the app, turn off Bluetooth in your device's Settings, turn Bluetooth back on, and pair the device again through the app.

Using the ActivForce Mobile Application

Downloading the Application | Creating an Account | First Time Tutorial | Selecting Default Settings
Signing In | Force Tests | Range of Motion Measurements | Strength Measurements | Settings Screen

Download the ActivForce mobile application from the Apple or Google Play Store.

App Store | Google Play

Using the ActivForce Web Dashboard

The ActivForce web dashboard, available at https://activforce.azurewebsites.net, displays saved force and angle measurement test reports. Reports are saved to the dashboard when you use the "Save and Exit" button on the ActivForce mobile application. Sign in to the ActivForce dashboard using the same email address and password used in the ActivForce mobile application. After a successful sign-in, saved test reports will be displayed in the dashboard.

A test report in the dashboard will contain the information recorded during the administration of the test.

The dashboard will also contain all test summaries for a client in a Client Report, accessible by clicking on the "Client Report" link from the dashboard home page.

ActivForce Web Dashboard

Attaching a Pad to the Device

The locking mechanism is a circle with four slots gaps that securely hold attachments in place through a twist-lock mechanism. To secure an attachment to the ActivForce 2 device:

1. Align the attachment teeth with the locking mechanism gaps.
2. Push the attachment teeth down into the gaps.
3. Twist the attachment clockwise (toward the locked symbol) a full quarter turn.
4. When locked, the attachment will remain in place.

Proper Usage of the ActivForce 2 Device

Measuring Force

The ActivForce 2 device measures accurately when force is applied in a perpendicular direction to the large surface area of the device or an attached pad. Application of the force should be in the center of the surface as much as possible. Direct all force into the device directly perpendicular through the device's center point.

Do not apply force in a non-perpendicular direction to the device.

Do not apply force at an angle or in a direction going across parallel to the device.

Do not apply force on or near to the slots band of the device.

Do not apply a force during the three second calibration period before the application starts the force measurement.

Do not move or rotate the device during the force measurement.

Measuring Range of Motion

The ActivForce 2 device can also measure angular displacement for range of motion testing. While the device is calibrating, make sure that the device is being held still in the starting position.

Do not rotate the ActivForce 2 device in multiple axes during a measurement.

Do not move the ActivForce 2 device in multiple planes of motion during a measurement.

Do not rotate the device during the brief calibration period before the application starts the range of motion measurement.

Place the device and/or subject into the starting position for test measurement and press the "Start Test" button.

App Security

Sign in and out of the app or use the security features on your mobile device to ensure data privacy. Your data within the app is encrypted and accessible only with your username and password.

Do NOT share your username or password with others. Always comply with local regulations on data privacy.

The Hand & Leg Straps

The Hand Strap

When using the Hand Strap attachment, ensure the strap is securely fixed in position. The Hand Strap may be used to secure the device to the pad for strength and range of motion tests.

The Leg Strap

When using the Leg Strap attachment, ensure the strap is securely fixed in position. Use the Leg Strap to attach the device to the subject's large body parts for range of motion tests.

Threading the Hand and Leg Strap

Thread the strap through both loops with the logo face up and the plate face down. Place the device so that the locking mechanism fits into the hole in the plate. Slide your hand between the device and the strap. Pull the non-logo side across your hand. Pull the logo side over and secure the velcro. Use with desired attachment.

The Different Pads

Using the Arched Pad

When using the Arched Pad attachment, ensure the attachment is securely attached to the locking mechanism. Use on hand or body body parts for strength tests. The curve of the Arched Pad surface can be used to place the device against curved body parts.

The Rounded Pad

When using the Rounded Pad attachment, ensure it is securely attached to the locking mechanism. Use on hand or body body parts for measurements and when bracing a test position against an immovable object.

The Foam Insert and Silicone Cover with the Arched Pad

Use of the Foam Insert and Silicone Cover is optional. For additional subject comfort, the Foam Insert can be attached to the Arched Pad surface. The Silicone Cover can be placed over the Foam Insert and the Arched Pad. The Silicone Cover can be removed in place using the grooves in the silicone to fit around the Arched Pad, providing a non-porous surface which can be easily cleaned and disinfected between uses.To ensure accurate measurement and prevent the Foam Insert and Silicone Cover from affecting measurements, ensure should ONLY be applied in a direction perpendicular to the Pad surface.

The Arched Pad | The Foam Insert, Silicone Cover and Arched Pad | The Rounded Pad

The Belt Loop

When using the Belt Loop Plate attachment, keep the belt positioned between the belt loop and the belt loop plate. The belt loop plate is designed to hold the belt in position during a test and is not designed to withstand force from a test. No force should be applied on the loops for a more accurate measurement. Keep the straps parallel to the direction of applied force as the force is measured. Use the belt loop plate on the belt to minimize the amount side of the device and not over the attachment side of the device.

The Round Pad with the Belt Loop Plate is recommended when the device is being pressed into the inelastic object.

The Belt Loop Plate may be used to guide the belt when the device is strapped to a fixed or immobile object.

Cleaning and Disinfecting the Device

To prevent the spread of infection and diseases, the ActivForce 2 device and pad should be disinfected between each use. The ActivForce 2 device is external surfaces, including the rounded pad and the soft, arched pad silicon sleeve, can be hand wiped at room temperature with a soft cloth and a cleaning solution consisting of 70% isopropyl alcohol and water. After application, the cleaning solution should be allowed to evaporate completely.

Alternatively, a cleaning solution of 1% hypochlorite and water (10,000 ppm) can also be used to wipe the device, pads and silicon sleeves. Hypochlorite solutions should be left on the surface for 10 minutes. Isopropyl alcohol based hand gels may also be used. Any residue from these agents should be wiped away using a soft, dry clean tissue or towel.

Replacing the Battery

The ActivForce 2 device comes with a standard AAA battery, which lasts between six to twelve months, depending on usage and environmental conditions. To replace the battery, follow these steps:

Obtain a new AAA battery and a medium size flat-head screwdriver. Insert ActivForce 2 device and the screwdriver with the pad attachment mechanism facing upwards. The ActivForce logo should NOT be visible.

Warnings and Contraindications

The ActivForce 2 device should NOT BE USED when:

The user and/or subject has a known allergy to silicon or plastic materials.

The skin contacting the device or pad is damaged, irritated or otherwise not healthy.

The device or attached pad is visibly damaged.

The device is in an environment with high heat, humidity or pressure.

This information is provided for general informational purposes only and is not intended as, nor should it be considered a substitute for, professional medical advice. Do not use the information on this website for diagnosing or treating any medical or health condition. If you have or suspect you have a medical problem, promptly contact your professional healthcare provider. The information on this website is provided "as is" without any representations or warranties, express or implied.

Troubleshooting

If the ActivForce 2 device does not connect with the mobile companion application, ensure that the application has Bluetooth permissions on your mobile device and that Bluetooth is turned on. If the device still does not connect, close the application and turn off Bluetooth on your device. Then, turn on Bluetooth and open the application. Pair the device through the application's connection dialog.

the mobile device. For some devices, the ActivForce companion application also requires Location permissions. If connectivity problems continue to occur, follow the instructions to replace the battery or make sure your mobile device is supported.

The ActivForce mobile application performs a tare operation automatically before each measurement, during the calibration phase. In addition, the device can also be manually tared. To tare the device, select “Calibrate Your Device” from the settings menu of the ActivForce mobile companion application.

To perform a hard reset of the device, remove the battery and re-insert it after 10 seconds. The battery and the removable pads are the only user-serviceable items.

For further assistance, complaints or comments, please contact support@activbody.com.

Additional Information

Safety

The ActivForce 2 device is certified to be compliant with all required safety standards and regulations, including electromagnetic compatibility and hazardous materials, for all territories it is distributed in. This includes these standards: IEC 60601-1 (Safety) and EN 60601-1-2 (EMC).

The ActivForce 2 device is not waterproof and should not be immersed in water or other liquids.

Similar to many electronic devices, the ActivForce 2 device contains flammable materials and should not be exposed to flames or other excessive heat sources.

Service Life

The ActivForce 2 device has a service life of at least 30,000 cycles, or force measurements.

Disposal

In the European Union, the symbol below indicates that the product should not be disposed of with other household waste. Batteries should be discarded separately, and the device should be deposited at an appropriate facility to enable recycling. Please separate these items from other types of waste and recycle them responsibly, following your local government’s disposal guidelines.

ActivForce 2 Device Specifications

Device Dimensions

Weight: (with AAA battery) 4.8 oz / 137 g

Length: 3.7 in / 9.5 cm

Width: 3.1 in / 7.8 cm

Height: 1.3 in / 3.3 cm

Volume: (approximate) 8.5 in³ / 139 cm³

Device Functional Specifications

Force Measurement Range: 0 to 200 lb / 0 to 90 kg

Force Measurement Accuracy: ± (1.4 lb + 5% of the applied force)

Range of Motion Accuracy: ±1° for angles measured from 0° to 33°, ±3% of the measured angle when > 33°

System Requirement: Android 8 or higher, iOS 13 or higher

Connectivity: Bluetooth 4.1

Operating Distance: Up to 7 ft / 2 m from mobile device

Battery: 1 AAA battery

Battery life: Approximately 6 months, may vary with usage or environmental factors

Operating Temperature: Range 32° to 95° F / 0° to 35° C

Storage Temperature Range: -13° to 122° F / -25° to 50° C

Operating Humidity Range: 15% to 93% relative humidity

Operating Pressure Range: 20.7 in Hg to 31.3 in Hg, 700 hPa to 1060 hPa

Case Dimensions

Weight: 29.5 oz / 835 g

Length: 14.2 in / 36.0 cm

Width: 6 in / 15.2 cm

Height: 3.94 in / 10.0 cm

Volume: (approximate) 334 in³ / 5,472 cm³

Accessories Dimensions

Hand Strap Length: 13.5 in / 34.3 cm

Hand Strap Width: 1.5 in / 3.8 cm

Leg Strap Length: 31.5 in / 80.0 cm

Leg Strap Width: 1.5 in / 3.8 cm

Belt Length: 97.6 in / 247.9 cm

Belt Width: 1.5 in / 3.81 cm

Contact

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