Lateral Force Accessory

(Order Code 2D-FP, GDX-FP2D, FP2D-BTA)



The Lateral Force Accessory is an accessory to the Go Direct® Force Plate (GDX-FP) and the Force Plate (FP-BTA). It physically attaches to these devices and provides force data parallel to the surface of the force plate. Use the combined Lateral Force Accessory with a force plate to determine the coefficient of friction while pushing a mass across the plate or investigate the force profiles of a runner *vs*. a walker.

Note: Vernier products are designed for educational use. Our products are not designed nor are they recommended for any industrial, medical, or commercial process such as life support, patient diagnosis, control of a manufacturing process, or industrial testing of any kind.

What's Included

- Vernier Lateral Force Accessory
- BTA to BTA Long Cable (does not ship with GDX-FP2D)
- BTA to BTA Short Cable (does not ship with FP2D-BTA)
- T25 Torx® wrench

Compatible Software

See **www.vernier.com/manuals/2d-fp** for a list of software compatible with the Lateral Force Accessory.

Assembly Instructions

For detailed assembly instructions, see **www.vernier.com/2d-fp_assembly**

Quick Start

Go Direct Force Plate (GDX-FP)

1. Use the **short BTA-BTA cable** to make an electronic connection between your force plate and the accessory.
2. Launch Vernier Graphical Analysis®.
3. Connect to your Go Direct Force Plate. If using Bluetooth® wireless technology, the ID is located on the label near the barcode.
4. Click Sensor Channels. Activate the Lateral Force Channel (leave the Force channel selected). Click Done.

Force Plate (FP-BTA)

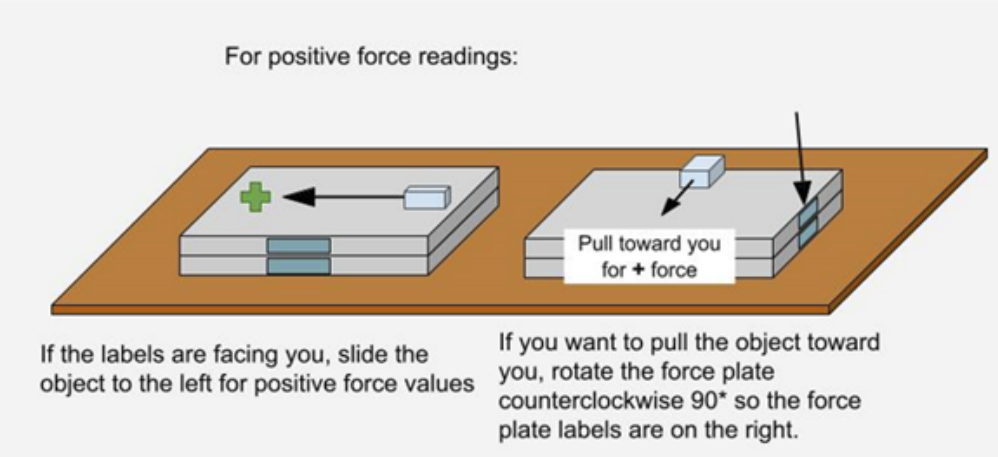
Note: You need **two (2) long BTA to BTA cables** for this step. One shipped with the Force Plate, and the other was included with the Lateral Force Accessory.

1. Use one **long BTA to BTA cable** to connect the Force Plate to your LabQuest interface.
2. Use a second **long BTA to BTA cable** to connect the Lateral Force Accessory to your LabQuest.
3. Prepare for Data Collection.
   a. Graphical Analysis: Launch the app, if necessary, and click Sensor Data Collection.
   b. LabQuest® App: Choose New from the File menu.

Using other Vernier data-collection apps or want to connect via USB?
Visit **www.vernier.com/start-go-direct** if using a Go Direct Force Plate.
Visit **www.vernier.com/start-lq-sensor** if using a Force Plate

Using the Product

Connect the sensor following the steps in the Quick Start section of this user manual. The accessory measures force exerted parallel to the side of the force plate where the cable connects. A positive value is registered when the force is applied in this orientation:



Direction of Force for +Value

Channels

The Lateral Force Accessory, when connected to the Go Direct Force Plate, uses the Lateral Force channel for data output.

Calibration

This device is factory calibrated. Calibration of this device is possible, but challenging to accomplish. Please contact Technical Support for guidance regarding calibration.

Specifications

Force range	–2000 to +2000 N
Maximum non-damaging force	2500 N (560 lbs)
Resolution	1.0 N
Dimensions	31.5 cm × 31.5 cm × 3.5 cm
Stored calibration information	slope: –956.52 intercept: 2391.3

Care and Maintenance

If the Lateral Force Accessory is stored unattached from a force plate, take care to protect the interior components.

The cable should be removed and stored to avoid damaging the wires.

How the Sensor Works

The force sensor uses strain gauge technology to measure force based on the bending of a beam in a load cell.

Troubleshooting

For troubleshooting and FAQs, see **www.vernier.com/til/22472**

Repair Information

If you have watched the related product video(s), followed the troubleshooting steps, and are still having trouble with your Lateral Force Accessory, contact Vernier Technical Support at support@vernier.com or call 888-837-6437. Support specialists will work with you to determine if the unit needs to be sent in for repair. At that time, a Return Merchandise Authorization (RMA) number will be issued and instructions will be communicated on how to return the unit for repair.

Accessories/Replacements

Item	Order Code
BTA to BTA Short Cable	BTA-SHORT
BTA to BTA Long Cable	BTA-LONG

Warranty

Warranty information for this product can be found on the Support tab at **www.vernier.com/2d-fp**

General warranty information can be found at **www.vernier.com/warranty**

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