

# **Core360 belt powered by OhmTrak sensor instructions**

# **GETTING STARTED**

Start by powering on sensor and placing core360 belt flat on a surface with sensors pointing up Open OhmTrak app – download to iPad or iPhone from Apple app store

	OHMTRAK	350
	FELLOW457A	(RSSI -92)
		(RSSI -79)
App will begin "scanning" for available devices		(RSSI -49)
	AL1101r4	(RSSI -72)
	NINA-B1-B7E31C	(RSSI -52)
	Scanning	90
	OHMTRAK	360
Locate your sensor and	OHMTRAK FELLOW457A	<b>360</b> (RSSI-92)
Locate your sensor and click on it.		
-		(RSSI -92)
click on it. Your sensor will automatical	FELLOW457A	(RSSI -92) (RSSI -79)
click on it.	FELLOW457A	(RSSI -92) (RSSI -79) (RSSI -49)

#### The last 2 digits of your sensor ID number are located on the insert that came in the packaging

Note: You may need to scroll down on the screen to find your sensor.

If you no longer have the insert, you can find your sensor's ID number located on the sensor: remove the sensor from the pocket. Lift up the half ball and black rubber disc. You will just need the last 2 digits of the ID to locate your sensor.

On this screen, for example, you would have the sensor with the last 2 digits 1C

#### Have 2 sensors and the app is auto-connecting to the wrong sensor?

Once the app connects and takes you to the screen where you choose which feature you would like to use, hit the "back" button in the upper left corner. Here you can click "scan for available devices" and then choose the sensor you wish to connect to.

#### Not connecting or not finding your sensor?

If the app is not finding your sensor and you have 2 devices you connect it to, please make sure the app is not open and connected on another device. If you are still unable to connect, close out of the app and then re-open.



# **TRAINING OPTIONS**

Once connected, you will be presented with 3 training/assessment options.

-> Choose your training option

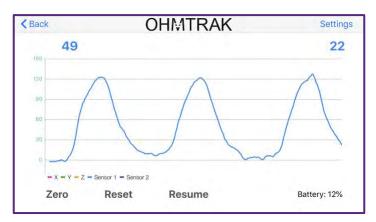


#### **BASIC TRAINING**

#### 1. What's it used for:

- This feature is used to work on improving breathing and intra-abdominal pressure during the majority of positions, movements and exercises
- In this mode you can train:
  - $\Rightarrow$  Respiration/Breathing pattern
  - ⇒ Ability to create intra-abdominal pressure (IAP)
  - $\Rightarrow$  Respiration + IAP concurrently

#### 2. What's on the screen:



Upper left: Back – return to prior screen Blue number – average amplitude Upper right: Settings – specify settings for this training option Blue number – current amplitude Left of graph: available amplitude range (y axis: min – max) Middle of graph: real time display of current activity – blue line Lower left: Zero – click to bring graph reading back to zero Middle left: Reset – click to reset y axis min/max to set levels Middle bottom: stops & resumes monitoring Lower right: battery charge status



#### 3. What's in settings:

Done	OHMTRAK		0018 <b>360</b>
Y axis Min	-20	Accelerometer X	0
Y axis Max	300	Accelerometer Y	(C)
Sensor 1		Accelerometer Z	0
Sensor 2	$\bigcirc$	Alarm sound	
Autoscale		Alarm vibration	0

Y axis min/Y axis max - sets the min and max amplitude that will be shown on the screen

If autoscale set to on - this min/max will be where the session begins and where it returns to when "reset" button hit If autoscale off – this min/max will be where the range stays no matter what the amplitude level is Sensor 1 – turns on and off sensor

Sensor 2 – \*not currently active\* – for future development

Autoscale - when on, will automatically adjust amplitude based on level of activity being monitored

NOTE: once amplitude rises to a certain level, the graph will stay at that number, it will **not** automatically shrink back down if monitored amplitude becomes lower. To get graph to fill screen and become more sensitive to changes in pressure, tap the **settings** button and then the **done** button and screen will rescale.

When you put the core360 belt on with the sensor, the amplitude will rise significantly due to the pressure placed on the sensor as the belt is tightened. After the belt is secured, before proceeding with training, hit the "reset" button and then "zero"

#### Settings cont....

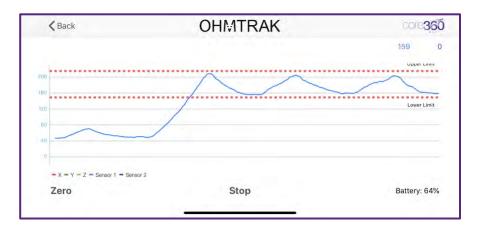
Accelerometer X,Y,Z – for research purposes; not used for training Alarm sound – when turned on and lower limit line set, alarm will sound when amplitude falls below lower limit Please note: sound comes from mobile device, not sensor itself.

Alarm vibration – when turned on and lower limit set, vibration will occur when amplitude falls below lower limit.

Please note: vibration comes from mobile device, not the sensor. Vibration must be turned on in settings on phone.



## 4. Setting Limits and Pinch Zoom



To set limits: tap the screen at level you would like to set the lower limit, then tap again to set the level of the upper limit. A third tap will erase the lines. When alarm is set, will sound if amplitude falls below lower limit.

You can then adjust the overall scale on the screen by using a pinch zoom in or out – zoom will only move within the set Y-axis parameters or current max level of autoscale.

## **ENDURANCE TRAINING**

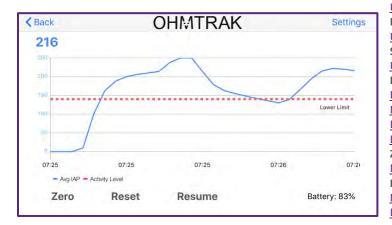
#### 1. What's it used for:

- This feature is used to monitor general expansion/pressure levels during endurance activities that cause too much noise on the graph when using basic training mode, due to their more "jolting" nature.
- Walking, hiking, running, biking etc
- Graph is **NOT** displaying real time information as it does in other 2 training options, but displays the activity occurring every 5 seconds in order to give an aggregate smooth graph.
- Choose a lower limit of where you do not want the pressure to fall below, turn on the alarm or vibration. If pressure falls below this limit, you will hear beeping sound or feel vibration on your phone.
- \*\*This is **NOT** a good training option for respiration or when a real time reading is required/desired.\*\*

PLEASE NOTE: Prior to using this feature, you should be able to create a low level of core activation (expansion) while maintaining a good respiratory curve on the graph. First during sitting, then while standing and walking. In sitting, you should be able to maintain this function for 5 minutes prior to beginning training with walking. You should be able to maintain this core activation + breathing while walking for up to 15 minutes before initiating training during more challenging exercising. See core360 belt YouTube channel for video of breathing, core activation and breathing + core activation curve examples.



## 2. What's on the screen:



Upper left: Back – return to prior screen Upper right: Settings – specify settings for this training option Upper left: Blue number – current amplitude Left of graph: available amplitude range (y axis: min – max) Middle of graph: aggregate display of current activity – blue line Lower graph: running time of activity Lower left: Zero – click to bring graph activity to zero Middle left: Reset – click to reset y axis min/max to set levels Middle bottom: stops & resumes monitoring Lower right: battery charge status

#### 3. What's in settings:

Done	OHMTRAK		core360	
Y axis Min	-20	Accelerometer X	$\bigcirc$	
Y axis Max	100	Accelerometer Y		
Sensor 1		Accelerometer Z		
Sensor 2		Alarm sound		
Autoscale		Alarm vibration	0	

Y axis min/Y axis max - sets the min and max amplitude that will be shown on the screen

If autoscale set to on - this min/max will be where the session begins and where it returns to when "reset" button hit If autoscale off – this min/max will be where the range stays no matter what the amplitude level is

Sensor 1 – Always have this on

Sensor 2 - not currently active - for future development

Autoscale - when on, will automatically adjust amplitude based on activity being monitored

NOTE: once amplitude rises to a certain level, the graph will stay at that number, it will **not** automatically shrink back down if monitored amplitude becomes lower. To get graph to fill screen and become more sensitive to changes in pressure, tap the **settings** button and then the **done** button and screen will rescale.

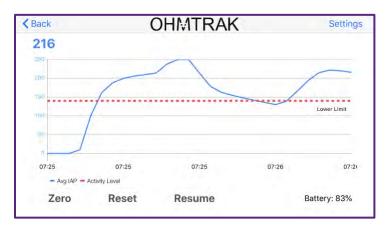
When you put the core360 belt on with the sensor, the amplitude will rise significantly due to the pressure placed on the sensor as the belt is tightened. After the belt is secured, before proceeding with training, hit the "reset" button and then "zero"

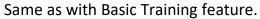
Accelerometer X,Y,Z – one may be turned on here – explanation to come.

Alarm sound – when turned on and lower limit set, alarm will sound when amplitude falls below lower limit Alarm vibration – when turned on and lower limit set, vibration will occur when amplitude falls below lower limit



## 4. Setting Limits and Pinch Zoom





## **VIDEO TRAINING**

#### 1. What's it used for:

- To assess specific timing of expansion/pressure during a movement
- When button is pressed at beginning of movement, monitoring of pressure and video will start simultaneously
- Once stopped, video will be saved to your device
- You can now scroll through video to see what is happening with the abdominal wall at specific points in the motion. i.e does amplitude begin to increase just before movement/load is initiated, or does it drop.
- Can be used during more complex and dynamic rehab or training movements and/or with sport movements.

#### 2. What's on the screen:



Upper left:

Back – return to prior screen Blue number - average amplitude Upper middle: Blue number – current amplitude **Purple zero** – for future development Upper right: Settings - specify settings for this training option Left of graph: available amplitude range Right half of graph: Video display Red button: start and stop recording Lower left: Zero - click to bring graph activity to zero Middle left: Reset - click to reset y axis min/max to set levels Middle bottom: stops & resumes graph monitoring only, not video Lower right: battery charge status

## 3. What's in settings: SAME AS BASIC TRAINING SETTINGS



## Getting started/putting it on user

- 1. Open app, select sensor and choose training option graph line should be running at zero
- Place belt around user with sensor in desired monitoring location graph line will rise in amplitude due to pressure being placed on it as belt is tightened; this is normal and expected. Make sure user does not suck in as core360 belt is being put on.

Note: though it cannot be 100% accurate due to elasticity of belt, reproduction of exact placement, state of abdominal wall relaxation at time of donning and angle of sensor, you can note the amplitude level when belt is put on in order to try to reproduce same starting point in subsequent sessions

3. Once core360 belt and sensor are in place, ask the user to relax their abdominal wall. Push **reset then zero** in bottom left corner to bring graph back down to zero and reset the y min/max axis

For best results, it is important at this point for the user to be relaxed and relatively unchallenged without load or resistance. There should be no "sucking" or "drawing in" of the stomach

4. Begin training; due to changes in resting abdominal expansion/pressure it may be necessary to occasionally reset graph to zero

Degree of increase in amplitude will vary per user based on many factors. In general it is not uncommon to see from 200-400 increase in amplitude depending on the activity. If user has poor diaphragm activity for respiration and core activation, you may only see 50-100 increase. If you are seeing expansion and graph does not appear to be representing that expansion, please refer to troubleshooting section below.

NOTE: if you have any pre-existing medical conditions (high blood pressure, heart issues, etc) or have acute low back pain please consult your medical professional prior to using core360 belt and/or the ohmtrak sensor.

\*\*You should never experience pain or discomfort when using the core360 belt and/or ohmtrak sensor. If you are experiencing pain of discomfort, you may be trying too hard or performing a movement or exercise incorrectly. If decreasing your effort and intensity does not alleviate the discomfort, please stop use and consult with your physical therapist, chiropractor or other qualified movement professional.



# TROUBLESHOOTING

If an increase in expansion/pressure does not appear to be registering properly, please check the following:

- 1. Pressure point location on sensor make sure it did not slide off sensor area
  - Can be mostly avoided if when sliding or repositioning sensor pocket on belt/body you reach in and hold entire pocket by wrapping your finger around and under the sensor, then sliding pocket on belt. Do NOT grab purple stripe or half ball only to slide.
- 2. Pressure point and sensor are tilted or angled. readjust so point is as perpendicular to area as possible
- 3. Graph y axis min/max is too high making graph seem less "sensitive" to expansion/pressure. Hit **reset**, then **zero** to rescale graph

## IN THE BOX

With your purchase of the ohmtrak sensor for core360 belt, you will receive the following:

- 1. Pocket that slides onto core360 belt holding the sensor and pressure point
- 2. Sensor
- 3. 2 pressure points:
  - Standard point 2" in diameter
  - Small point 1.5" in diameter can be used when user is sensitive to the 2" point or if user's body type or activity being performed is causing point to slide or tilt impacting monitoring
- 4. Black rubber disc to be placed between pressure point and sensor to help prevent sliding of point off the sensor
- 5. Rubber bands to hold pressure point to sensor use figure 8 length wise on the sensor and over the pressure point
- 6. USB charging cord

We have designed the sensor and pressure point to maintain flexibility in how you are able to utilize it. Keeping the components separate gives you more options for how you can utilize the sensor.



# **OhmTrak Sensor Instructions for Use**



#### Sensor activation

• The OhmTrak sensor is turned on by pressing the ON/OFF button.

When the sensor is turned on the blue LED indicator flashes in 0.5 sec intervals.

- If the blue indicator doesn't come on at all charge the sensor's battery first via micro USB cable through USB charging port using a regular USB power source. While being successfully charged LED indicator sends short flashes in 2-second intervals.
   Blue indicator gets permanently on once the sensor is fully charged and connected to the USB power source.
- In case of sensing pad damage, blue indicator sends very quick flashes in frequency 20 per second.
- The sensor is turned off by pressing the ON/OFF button for 3 seconds. The blue indicator will turn
  off.

#### Key companion products:

OhmTrak sensor is programmed to connect with OhmTrak app downloadable at the Apple app store for iOS devices.



#### WARNING!

- Never charge the sensor while attached to the human body! The sensor's sensing is in the off mode when being charged.
- Do not use the sensor when it is mechanically or otherwise broken. Unauthorized enclosure opening may damage the sensor!
- Do not store sensor under direct sunlight and in hot places exceeding temperatures of 40°C / 104°F
- Do not throw sensor into the fire, water or regular waste bins. The sensor contains a lithium battery. Recycle if possible.

Core360 belt is manufactured by: Back in Balance Physical Therapy 6711 Forest Lawn Dr. #104, Los Angeles, CA 90068

Made in Mexico w/ US and imported fabrics Sensor made in Czech Republic