

Pressure Biofeedback Unit

Safety and Set Up Instructions

Important

Read and follow all safety information and instructions. Keep this manual for future reference.



Maximum pressure for biofeedback use: 100 mmHg. Standard exercises only reach 90 mmHg. Do not inflate the pad past this.

To leave it inflated at 300 mmHg would risk the seams of the pad.

Set Up Steps

1. Unpack parts: the inflatable pad, the clear tube, and the gauge with the hand bulb and release valve fixed beneath it.



2. Check the connections: the clear tube runs from the pad to the gauge.

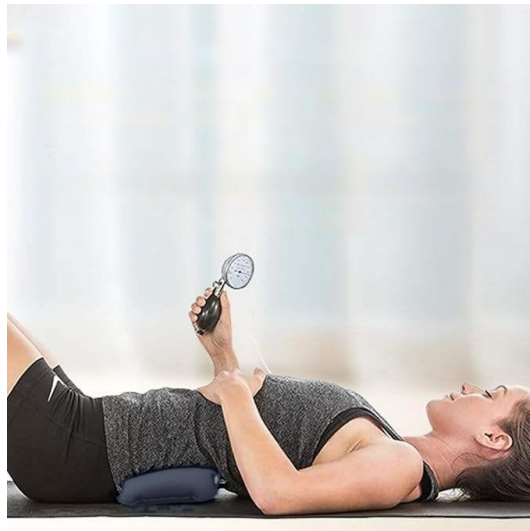
3. Test it: gently turn the release valve (the knurled knob beside the gauge) to lock it, and test pressurising the pad to 70 mmHg by repeatedly squeezing the bulb. Then turn the valve in the other direction to open it and let the pressure out.



Instructions

Set the starting pressure

- 1. Place the pad:** lay it flat between the body and the floor or mat, under the part you are training: the lower back, the stomach or the neck. It can also go under a shoulder, an arm or a leg.
- 2. Pump:** with the valve closed, squeeze the hand bulb until the needle reaches the starting pressure for the exercise (see Starting pressures below).
- 3. Settle:** get into the starting position and check the needle again. Add air with the bulb, or let a little out with the valve, until it sits on the starting pressure.



Train

- 1. Move and watch:** do the exercise while you, or the coach, watch the needle. A steady needle means the position held. A moving needle means the trunk moved, or the athlete pressed into the pad or eased off it.
- 2. Reset:** if the needle moves, stop, return to the starting position and go again.
- 3. Record:** count how many repetitions, or how many seconds, the needle stays steady. This gives the athlete a number to hold and the coach a record to compare next session.
- 4. Finish:** open the release valve and press the pad flat, gently to moderately, for about 10 to 20 seconds until all the air is out.



Starting pressures

The following are recommended starting pressures:

- **Lying on the back, pad under the neck:** 20 mmHg
- **Lying on the back, pad under the lower back:** 40 mmHg
- **Lying on the front, pad under the stomach:** 70 mmHg

Exercises

These are trunk control exercises for athletes and coaches. In each one the aim is to keep the needle steady while you breathe normally and move. Hold each position for 10 seconds, rest for a few seconds, and repeat up to 10 times. Make it harder with longer holds, slower movements or more repetitions, not by pressing into the pad. Stop any exercise that causes pain.

Lying on the back, pad under the neck (20 mmHg)

- **Chin nod:** lie on your back with your knees bent and the pad under the curve of your neck. Gently nod your chin, as if saying yes, until the needle rises to 22 mmHg. Hold it there, keeping your jaw relaxed and your head on the floor, then relax back to 20.
- **Building up:** once you can hold 22 mmHg steady for 10 seconds, 10 times, nod a little further to 24 mmHg, then 26, 28 and 30 mmHg in later sessions.

Lying on the back, pad under the lower back (40 mmHg)

Lie on your back with your knees bent and feet flat, with the pad under the curve of your lower back. Pump to 40 mmHg in this position, then:

- **Brace and breathe:** tighten your stomach gently, as if getting ready for a light push, and keep the needle steady for 10 slow breaths.
- **Heel slide:** slide one heel along the floor until the leg is straight, then slide it back. Change legs each time.
- **Marching:** lift one foot until the knee is above the hip, keeping the knee bent, then lower it. Change legs each time.
- **Dead bug:** start with both arms pointing at the ceiling and both knees above the hips, bent to a right angle. Slowly lower one arm behind your head and straighten the opposite leg towards the floor, then return. Change sides each time.

Lying on the front, pad under the stomach (70 mmHg)

- **Stomach draw in:** lie face down with the pad under your stomach, the centre of the pad at the belly button, and your forehead on your hands. Gently draw your stomach in, away from the pad, without moving your back or hips. The needle drops, by about 6 to 10 mmHg when done well. Hold it steady while you breathe normally, then relax.

The starting pressures and targets follow the supplier's manual and published pressure biofeedback exercise studies.

Specifications

- **Gauge:** analogue, 0 to 300 mmHg.
- **Pad:** heat sealed TPU air bladder in a nylon cover, with press studs at the corners.
- **Inflation:** hand bulb with release valve.
- **Power:** none. It works on air only, with no batteries, electronics or liquid.

Safety

- Do not pump the pad above 100 mmHg (see Important on page 1).
- This is a training tool. It does not diagnose, treat or prevent any injury or condition. If you have an injury, pain or a health condition, ask a doctor or physiotherapist before training with it.
- Check the pad, tube and connectors for leaks before each use.
- Stop using it if the pad is torn, the tube is cracked or the gauge does not work.
- Keep it away from sharp objects, heat, open flame and chemicals.
- Children should use it only with an adult watching.

Troubleshooting

- **The pressure keeps dropping?** Push each tube end firmly onto its connector, check the valve is fully closed, and look for small holes in the pad, bulb and tube.
- **The needle does not move?** Check that the tube is not kinked, pinched or blocked.
- **Hard to pump?** The release valve is probably open. Close it.

Care and storage

- Wipe the pad with a soft cloth and mild soap, then let it dry fully. Do not put it under water.
- Let all the air out before storing it (see Finish above). To put it away for a while, store it flat in its zip bag in a cool, dry place, with nothing heavy on top and no sharp folds in the pad.
- Check now and then that the pad holds air and the connectors are tight, as tubing ages and loosens over time.