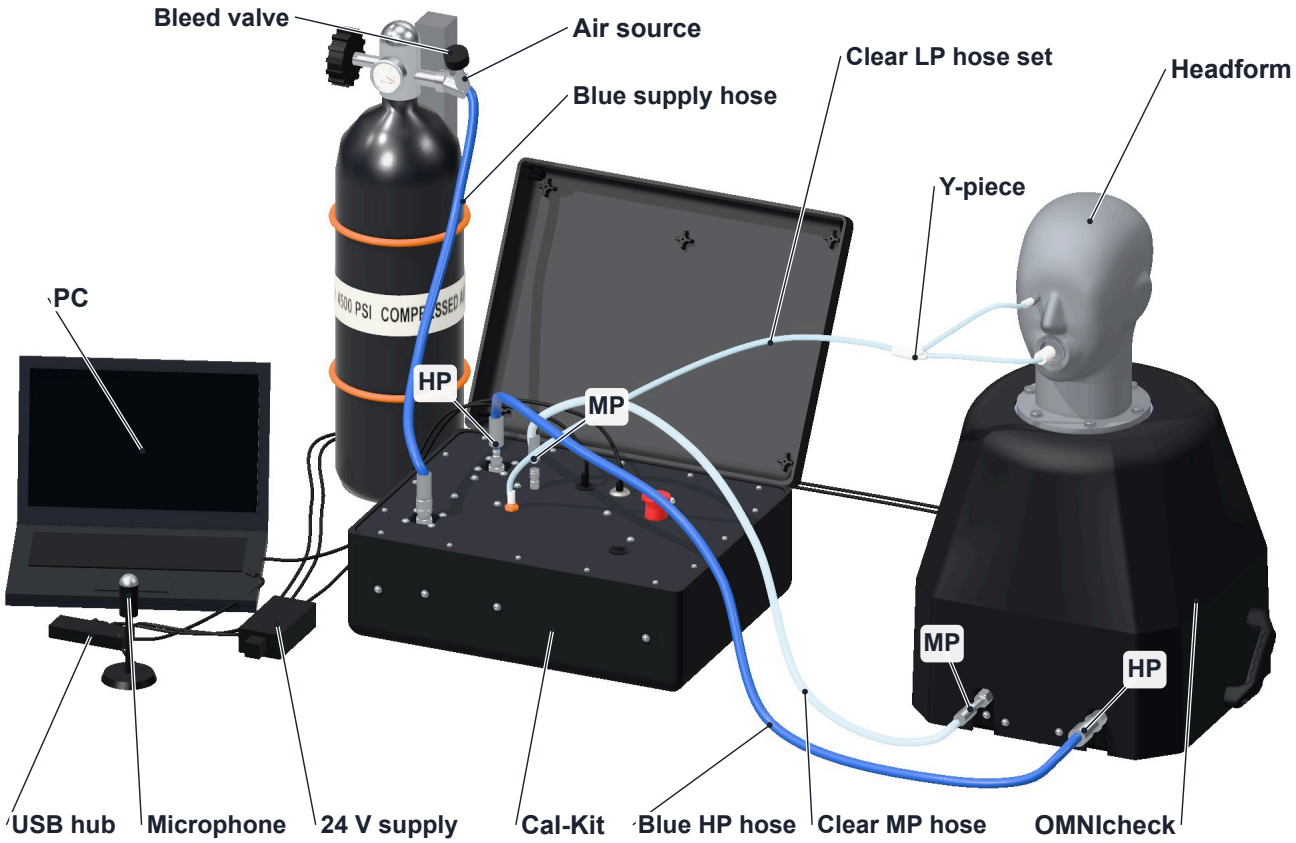
November 2026

OMNIcheck® Cal-Kit

Field Calibration Instructions

Unpacking, setup, calibration, packing and troubleshooting



Read Section 1 (Safety) before you use the Cal-Kit. Keep this guide with the kit.

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About this guide

This guide shows you how to calibrate your OMNIcheck with the ATOR Labs Cal-Kit. You do not need calibration training. Follow the steps in order. The OMNIcheck software tells you what to do next at each stage. This guide shows you how to do it safely.

Read Section 1 (Safety) before you start. Keep this guide with the Cal-Kit.

Bold	A button, message or label on the screen or on the Cal-Kit panel, for example **Initialize Machines** or **HP IN**.
(A) … (J)	A port or control on the Cal-Kit top panel. See Figure 3-1.
1, 2, 3	Do numbered actions in order.
approx. 3 min	A planning estimate for the step, not a pass or fail limit. Always wait for the software's completion message.

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Questions? ATOR Labs · +1 850-807-7886 · info@atorlabs.com · Calibration files: calibration@atorlabs.com

1 Safety

1.1 Signal words and symbols

⚠ WARNING

A hazard that could cause death or serious injury if you do not avoid it.

⚠ CAUTION

A hazard that could cause minor or moderate injury if you do not avoid it.

NOTICE

Information that prevents damage to equipment, or a failed or invalid calibration. No injury hazard.



General warning
Read the text that goes with this symbol.



High pressure
Air at up to full cylinder pressure (up to 5,500 psi). A loose fitting or a damaged hose can whip, or inject air through the skin.



Moving part
The lung inside the headform moves on its own during the functional checks.



Electrical
24 V power supply. Use it indoors and keep it dry.



Trip hazard
Hoses and cables run across the bench and the floor.



Wear eye protection
Wear safety glasses whenever the kit is connected to air.



Read the instructions
Read this guide before you use the kit.



Emergency stop
Know where E STOP is before you open the air (Section 1.3).

1.2 Safety rules

⚠ WARNING



Read and follow these rules every time you use the Cal-Kit. Failure to follow them can cause serious injury.

- Wear safety glasses from the moment you connect the air until the air is vented.
- Keep the air source valve **closed** until the software asks you to open it (Section 6, Step 5).
- Never connect, disconnect, loosen, tug or cap a fitting while it is pressurized. Close the air source, vent, and confirm zero pressure first (Section 11, Step 1).
- Use only the hoses, adapter and fittings supplied with the kit. Do not use a hose that is cut, kinked, bulging or has a damaged fitting.
- Use clean, dry breathing air only. Never use oxygen or any other gas.
- If your air source is a cylinder standing upright, chain or strap it to a fixed stand or wall so it cannot fall over.
- Keep your face and hands away from fittings while the software is pressurizing.
- Keep fingers out of the headform mouth while the lung moves.
- Use only the 24 V power supply supplied with the kit, indoors, in a dry place.
- Do not leave the kit unattended while it is pressurized.
- Do not take the Cal-Kit apart. There are no user-serviceable parts inside. Contact ATOR Labs for service.

1.3 Emergency stop (E STOP)

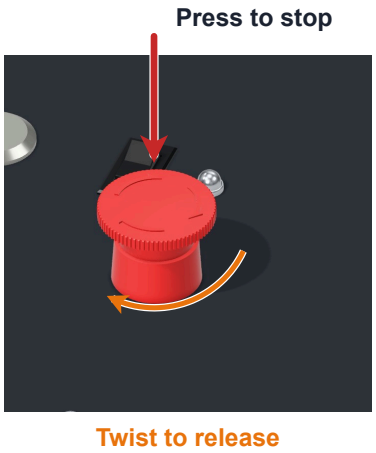


Figure 1-1. E STOP (H) on the Cal-Kit panel: press to stop.

- The red **E STOP** button (H) on the Cal-Kit panel, and the yellow **E STOP** button on the software screen, stop the kit at once.
- Press **E STOP** if you hear a leak, if pressure keeps rising, or if anything looks wrong.
- **E STOP stops the kit and vents the air inside it. It does not close your air source.** Close the air source valve **straight after** you press E STOP. If you leave it open, air keeps bleeding out through the kit and empties your cylinder. Do not touch any fitting until you have vented the supply hose and confirmed zero pressure (Section 11, Step 1).
- To restart: find and fix the cause, if there is one. Twist the red button to release it, then start again from **Initialize Machines** (Section 6, Step 1). If you are not sure it is safe, contact ATOR Labs.

2 Before you begin

2.1 How long it takes

About 1 hour

Planning estimate for the whole job, from opening the case to packing it up.

Allow longer

For your first calibration, or if a step has to be run again.

NOTE All times in this guide are planning estimates. However long a step takes, wait for the software's completion message before you go on.

2.2 What you supply

☐	**Your OMNIcheck**	With its headform, its 2 USB cables, its USB hub and its CMTeck USB microphone.
☐	**A Windows PC**	With the newest OMNIcheck software (Q4 2026 or later), which has **Auto Calibration** built in. Download it from **support.omnicheck.co**. Until you can update, you need the Cal-Kit calibration app, available for a limited time: contact ATOR Labs for the download link. Run the installer, then start the app from its shortcut: it shows the same screens as this guide from Section 5, Step 3. Uninstall it once you have the newest OMNIcheck software.
☐	**High-pressure air**	A **full SCBA cylinder** (4,500 or 5,500 psi), or a breathing-air supply rated no higher than 5,500 psi. Clean, dry breathing air only. Supply Pressure must read at least 4,500 psi for the calibration to finish. **Do not connect a source rated above 5,500 psi.** The supply adapter fits a standard CGA 347 cylinder valve.

☐	**USB ports**	2 free USB ports on the PC: one for the OMNIcheck USB hub, one for the Cal-Kit. The hub is powered by the PC.
☐	**Bench and power**	A firm, level bench with room for the OMNIcheck, Cal-Kit and PC side by side. Two wall outlets.
☐	**Safety glasses**	One pair for each person at the bench.
☐	**Email**	To send the calibration file to ATOR Labs at the end.

2.3 How it fits together

The Cal-Kit sits beside the OMNIcheck. Air comes from your source into the Cal-Kit, which feeds the OMNIcheck at high, medium and low pressure. The PC runs the software and talks to both machines over USB. The picture on the cover shows the full setup; each step in this guide shows only the connection it makes.

3 Know your Cal-Kit

3.1 Top panel

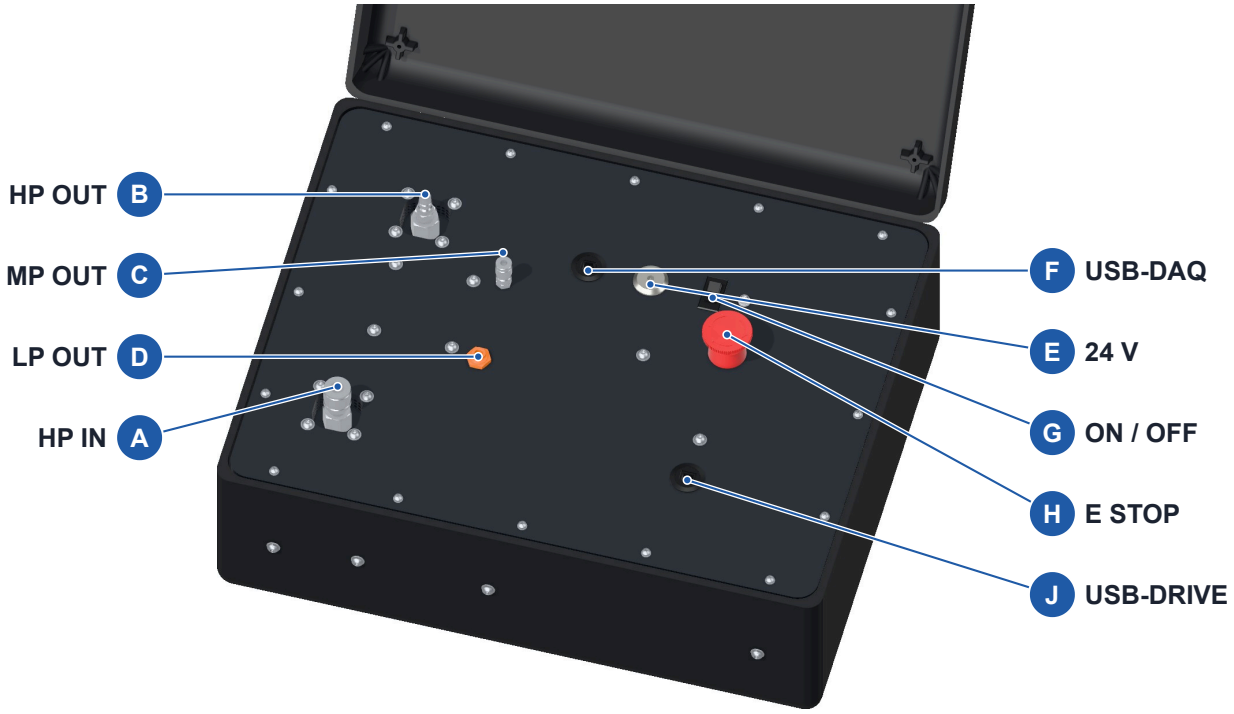


Figure 3-1. Cal-Kit top panel, lid open.

A	**HP IN** High-pressure air in. The blue supply hose elbow connects here (quick-connect).
B	**HP OUT** High pressure to the OMNIcheck (hose tagged “HP TO OMNI”).

C	**MP OUT** Medium pressure to the OMNIcheck.
D	**LP OUT** Low pressure (orange port). Feeds the clear mouth and eye hoses.
E	**24 V** Power jack for the supplied 24 V power supply.
F	**USB-DAQ** USB to the PC. The software finds the kit through this port.
G	**ON / OFF** Cal-Kit power switch.
H	**E STOP** Emergency stop. See Section 1.3.
J	**USB-DRIVE** Built-in USB drive with the kit software and kit data.

3.2 Inside the shipping case

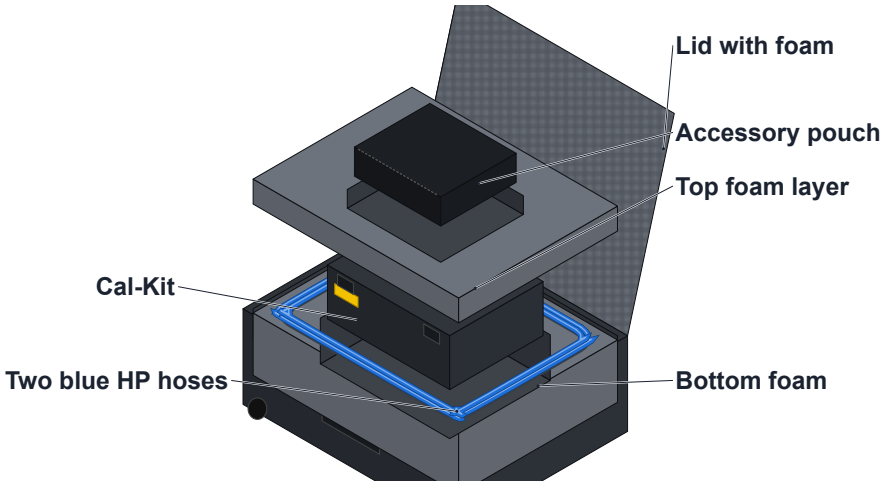


Figure 3-2. The case packs in three layers.



Figure 3-3. Accessories. Numbers match the packing list (Appendix A).

4 Unpack the kit

Unpack on the floor or a sturdy table near your bench. Keep all the foam: you pack the kit back the same way.

1 Open the shipping case

approx. 2 min

⚠ CAUTION

The case is heavy and awkward to carry. Use the wheels to move it. One person can lift it, but two people are safer. Lay it flat before you open it so it cannot tip.

1. Lay the case flat, wheels down, lid up.
2. Open both latches.
3. Lift the lid all the way back. The top foam holds the black accessory pouch.

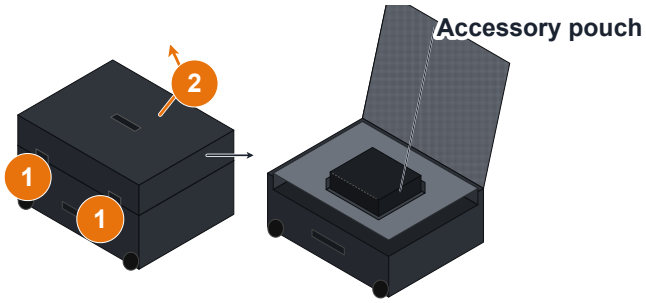


Figure 4-1. Open both latches, then lift the lid.

2 Check the accessories

approx. 3 min

⚠ WARNING

A damaged hose or fitting can release high-pressure air and cause serious injury. Do not connect air to damaged equipment. Contact ATOR Labs.

1. Lift out the top foam, with the accessory pouch in its cutout. Set it down beside the case.
2. Take the pouch out of the foam. Lay its contents on the bench.
3. Check each item against the packing list (Appendix A) and Figure 3-3. Tick it off.
4. Leave the sound calibrator in its bag until the software asks for it.

NOTICE

If anything is missing, contact ATOR Labs before you start.

NOTE You use the mouth plug and the two orifices (A and B) near the end, in the functional checks.

3 Lift out the Cal-Kit

approx. 3 min

1. Below the top foam, the two blue HP hoses lie in the channel around the Cal-Kit: the supply hose (elbow end) and the hose tagged “HP TO OMNI”. Lift both out.
2. Lift the Cal-Kit out. Set it on the bench beside the OMNIcheck, and open its lid.

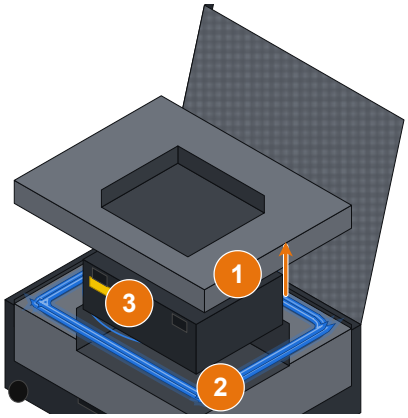


Figure 4-2. Top foam with the pouch (1), the two blue HP hoses (2), then the Cal-Kit (3).

5 Power, USB and software

Connect the electrics first. No air is connected yet.

> ***NOTICE***
>
> Do not start the OMNIcheck or Cal-Kit software until Step 3. If the software is already open when the microphone is plugged in, the microphone step can fail. If it does, see Section 12, “USB Device Mismatch”.

1 Connect the USB cables

approx. 2 min

1. Cables 1 and 2: on the back of the OMNIcheck, plug the **black** cable into the **top** USB port and the **grey** cable into the **bottom** USB port. Plug the other end of each into the OMNIcheck USB hub.
2. Cable 3: plug the OMNIcheck USB microphone (CMTeck) into the hub.
3. Cable 4: plug the hub into the PC.
4. Cable 5: connect the Cal-Kit **USB-DAQ** port (F) to the PC with the supplied USB cable.

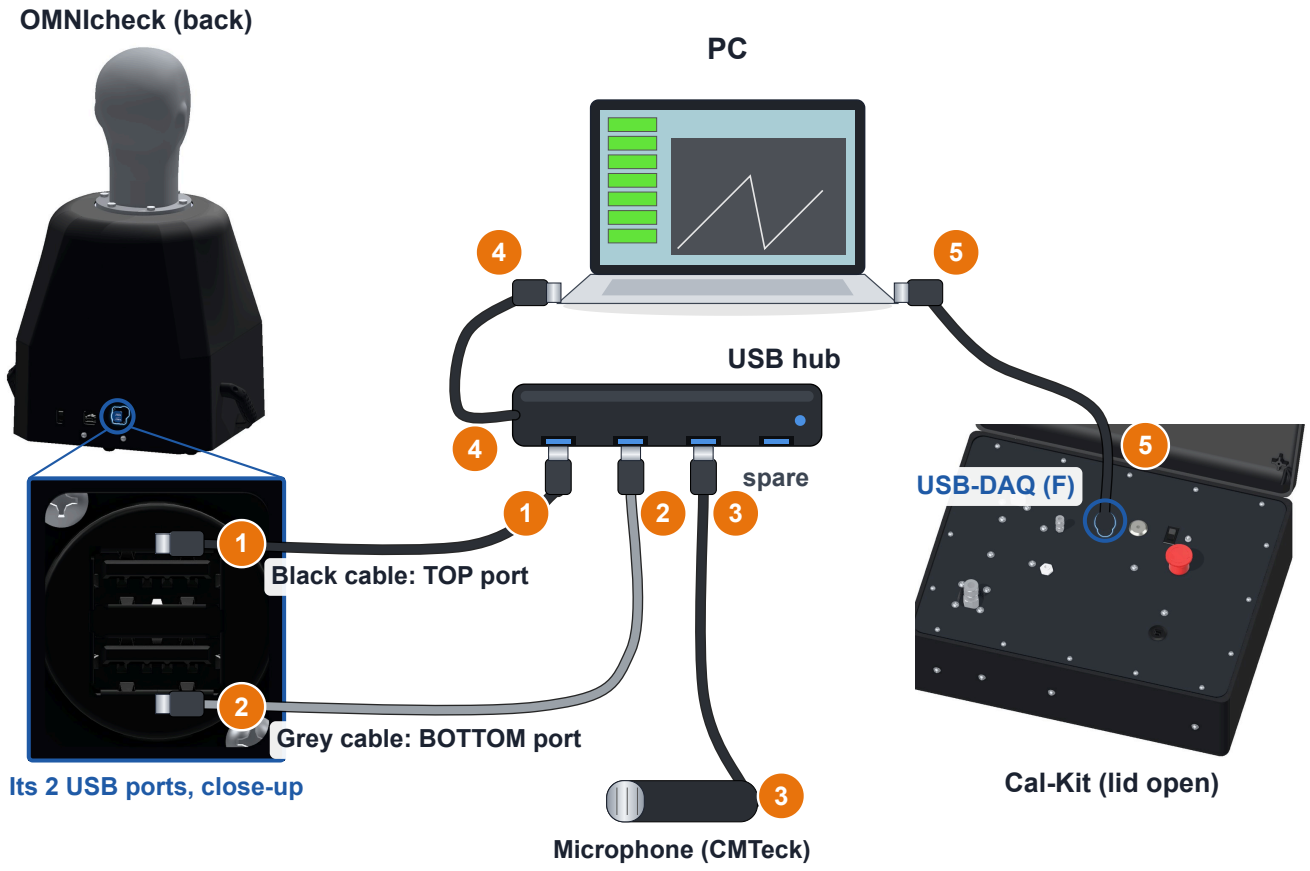


Figure 5-1. Five USB connections. Each cable has the same number at both ends.

2 Power on

approx. 1 min

⚠ WARNING

Use only the 24 V power supply supplied with the kit. Use it indoors, in a dry place. Do not use it if the case or cord is damaged.

1. Plug the 24 V power supply into the **24 V** jack (E), then into a wall outlet.
2. Switch the Cal-Kit **ON** (G).
3. Check that **E STOP** (H) is up (released).
4. Turn the OMNIcheck on.

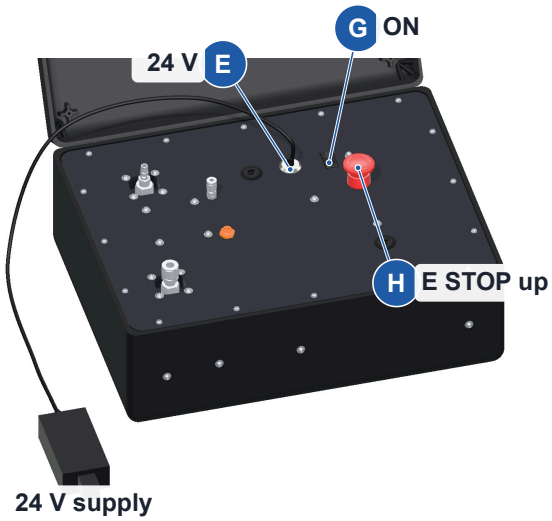


Figure 5-2. 24 V supply into (E), switch ON (G), E STOP (H) up.

3 Start the software

approx. 1 min

⚠ CAUTION

Run cables and hoses along the back of the bench. Keep them off the floor where people walk.

1. Check the five USB connections from Step 1.
2. Open the OMNIcheck software. Wait until **OMNI Connected** and **Cal Kit Connected** are both lit.
3. Click **Auto Calibration**, then click **I Agree**. No special login is needed.

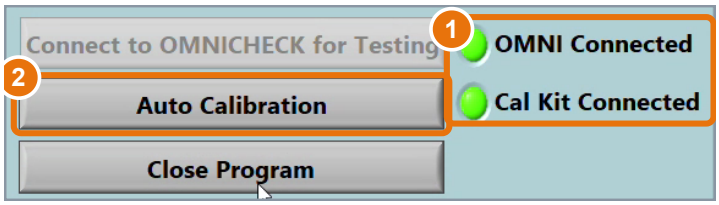


Figure 5-3. When both lights are on (1), click Auto Calibration (2).

6 Connect hoses and air

The software asks for each connection in turn. Do what each message says, then click Okay.

⚠ WARNING

High-pressure air. Keep the air source valve **closed** until Step 5. Wear safety glasses from now until the air is vented. Never connect or disconnect a fitting that is under pressure.

1 Initialize Machines

approx. 1 min

1. Before you connect anything: check that the air source valve is closed, and that the bleed valve on the supply adapter is closed.
2. Click **Initialize Machines**.
3. Steps 2 to 5 follow the software's messages in order. Do each one, then click **Okay**.

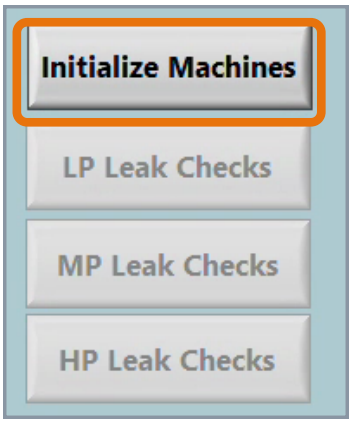


Figure 6-1. Initialize Machines is at the top of the left-hand column.

NOTE The left-hand column runs from top to bottom: leak checks, sensor calibrations, functional checks, then Finalize. Each button turns green when that step passes.

2 HP and MP hoses to the OMNIcheck

approx. 2 min

⚠ CAUTION

To connect a quick-connect (**HP OUT** (B), **MP OUT** (C) and the OMNIcheck medium-pressure inlet): pull the fitting's sleeve back, push the hose end straight on, then let the sleeve go. A quick-connect fits one way only. Never force it.

1. Blue hose tagged “HP TO OMNI”: connect its quick-disconnect end to **HP OUT** (B). Screw the nut on the other end onto the OMNIcheck high-pressure inlet, by hand, until it is snug. The inlet is the silver fitting low on the front of the OMNIcheck, on the right as you face it.
2. Clear MP hose (from the pouch): connect its quick-disconnect end to **MP OUT** (C). Connect the other end to the OMNIcheck medium-pressure inlet, low on the front, on the left. The two inlets are different, so each hose fits only its own inlet.
3. Pull back gently on every connection: it must stay locked.

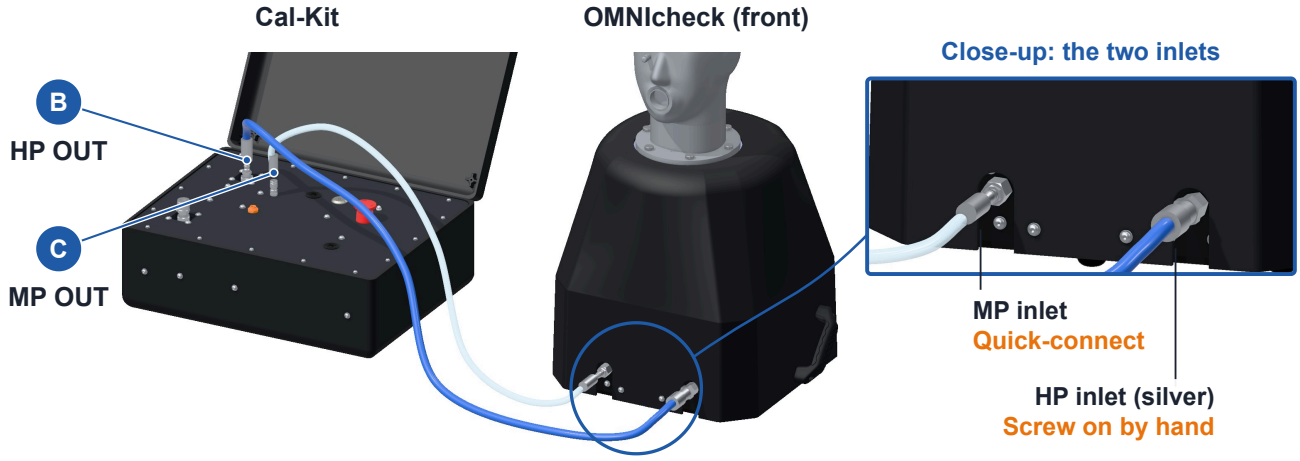


Figure 6-2. HP OUT (B) and MP OUT (C) to the OMNIcheck inlets.

NOTICE

Connect both hoses before you click Okay. If one is missing, the checks that follow will fail and must be run again.

3 Connect the air supply

approx. 2 min

⚠ WARNING

If your air source is a cylinder standing upright, chain or strap it to a fixed stand or wall before you connect it. A falling cylinder can break its valve and release air at full pressure.

⚠ WARNING

Use only a source rated 5,500 psi or less (Section 2.2). Do not connect a source rated above 5,500 psi.

1. Check again that the air source valve is closed.
2. Connect the elbow on the blue supply hose to **HP IN** (A): pull the sleeve back, push the elbow on, let the sleeve go. Tug gently: it must stay locked.
3. Fit the supply adapter (the tee with the bleed valve) to your air source and tighten it by hand. Check its bleed valve is closed.
4. Connect the other end of the blue supply hose to the adapter.

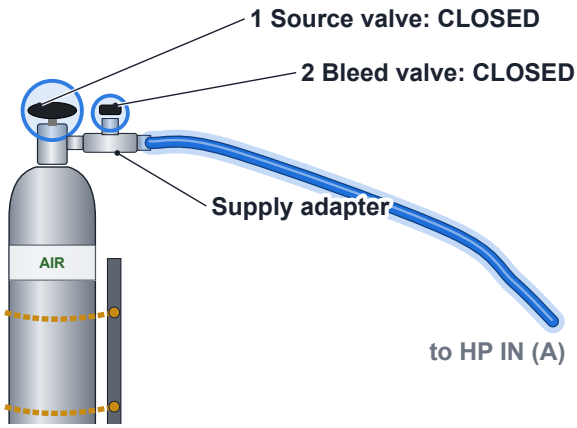


Figure 6-3. Source valve (1) and bleed valve (2) stay closed while you connect.

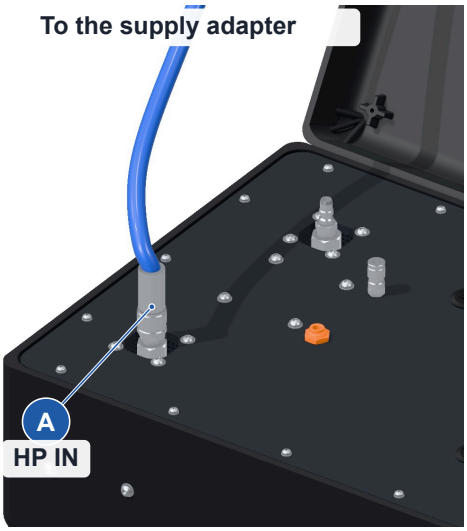


Figure 6-4. The blue hose elbow connects to HP IN (A).

4 LP hoses to the headform

approx. 3 min

1. Take the clear LP hose set from the pouch. It is one assembly: a hose from the Cal-Kit to a Y-piece, then a short line to the mouth fitting and one to the eye fitting.
2. Push the single end firmly into the orange **LP OUT** port (D) until it stops.
3. Fit the mouth fitting into the headform mouth, and the eye fitting onto the eye sensor.
4. Give each LP connection a gentle tug. It must not come out.

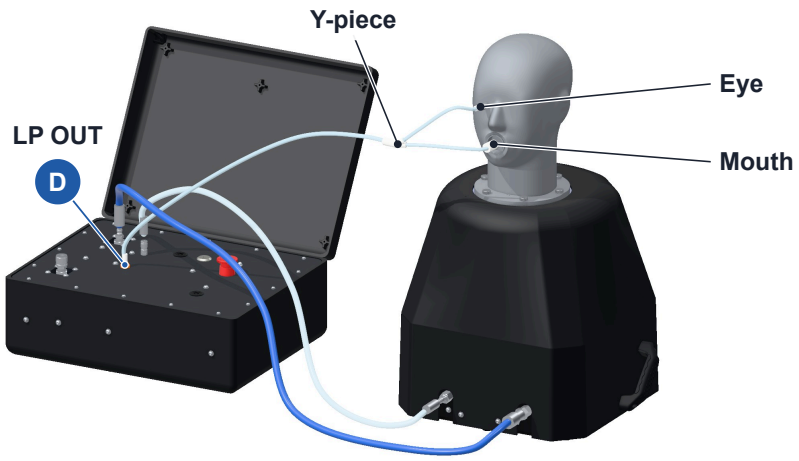


Figure 6-5. LP OUT (D) to the Y-piece, then into the headform mouth and onto the eye sensor.

NOTICE

Do not kink, pinch or stretch the clear LP hoses. A kinked hose gives a false leak or a bad calibration.

5 Open the air and enter your name

approx. 1 min

⚠ WARNING

If you hear an air leak or see the pressure fall, press **E STOP**, then close the air source valve at once: an open source keeps bleeding your cylinder through the kit. Do not touch any fitting until you have vented and confirmed zero pressure (Section 11, Step 1).

1. Put on your safety glasses.
2. When the software shows **Open HP Setup**, open the air source valve **slowly**.
3. Check **Supply Pressure** at the top of the screen. It must read at least 4,500 psi.
4. The software asks who is managing the equipment. Type your name (the person running the calibration) in **Technician Name** and click **OK**. Click **Okay** at **Machine Initialization Complete**.

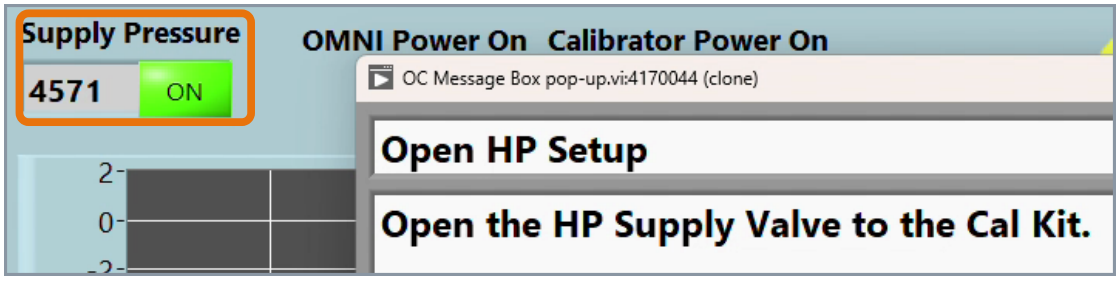


Figure 6-6. Open HP Setup. Open the source valve slowly and watch Supply Pressure (boxed): it must read at least 4,500 psi.

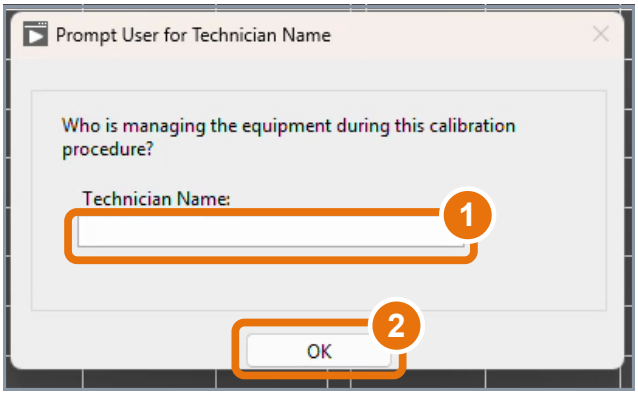


Figure 6-7. Then the software asks for your name: type it in Technician Name (1) and click OK (2).

NOTE If Supply Pressure reads less than 4,500 psi, close the source valve and see Section 12, “Supply Pressure below 4,500 psi”.

7 Leak checks

The leak checks find a loose connection before calibration starts.

1 LP and MP leak checks

approx. 1 min

1. Click **LP Leak Checks**. Wait for **LP Leak Check Complete**, then click **Okay**.
2. Click **MP Leak Checks**. Wait for **Medium Pressure Leak Check Complete**, then click **Okay**.

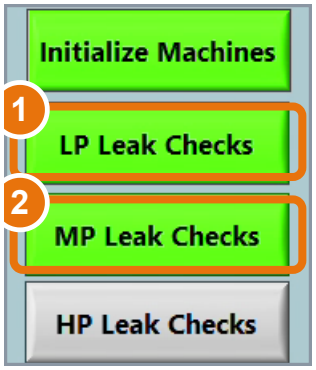


Figure 7-1. LP Leak Checks (1), then MP Leak Checks (2). Each turns green when it passes.

NOTE If a leak check fails, see Section 12, “A leak check fails”.

2 HP leak check (optional)

approx. 1½ min

⚠ WARNING

Stay clear of the fittings while the kit fills. If you hear a leak, press **E STOP**, then close the air source valve at once.

1. Click **HP Leak Checks**. The software asks whether to run it.
2. Click **Continue** to run it. The kit fills once to full pressure, then vents. Wait for **High Pressure Leak Check Complete**, then click **Okay**. If it fails, see Section 12.
3. Or click **Skip** if your air is limited, for example a single cylinder. Skipping saves air, but a leak may go undetected and may stop the calibration from succeeding.

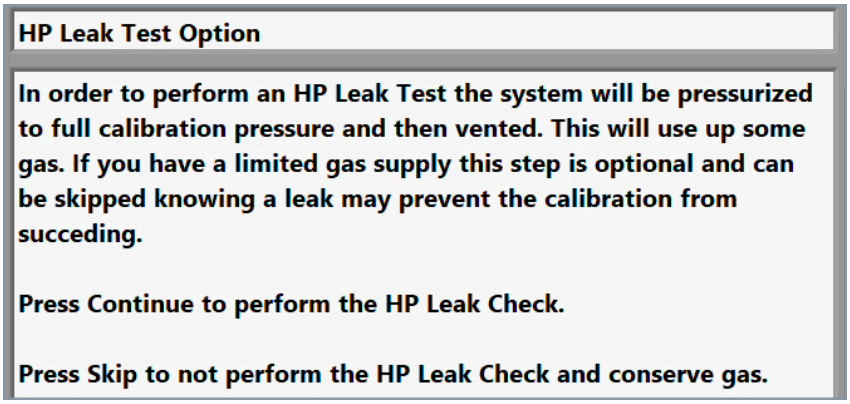


Figure 7-2. Continue runs the check. Skip saves air.

8 Sensor calibration

This section uses the five calibration buttons in the left-hand column of the software, just below the leak-check buttons: **Cal Mic**, **Cal Baro**, **Cal LP Sensors**, **Cal MP Sensor** and **Cal HP Sensor**. Click them in that order, top to bottom, one per step. Each button turns green when its calibration passes.

1 Microphone

approx. 1 min

1. Click **Cal Mic**.
2. Take the supplied sound calibrator out of its bag. Push the OMNIcheck microphone fully into it.
3. Set the calibrator switch to **94 dB**. Click **OK**. Hold the microphone in place until the software finishes.
4. Check that **Cal Mic** has turned green.

> **NOTE** A “Mic Cal Complete” message is not enough on its own. The **Cal Mic** button must be green. If it is not, see Section 12.

5. Then switch the calibrator OFF and put it back in its bag.

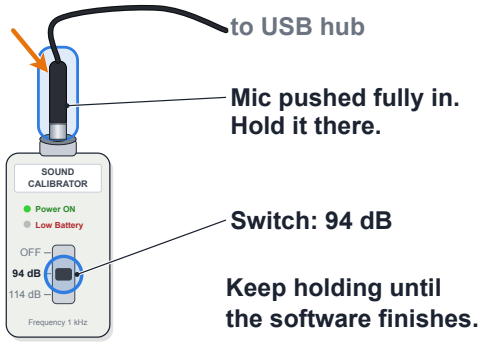


Figure 8-1. Hold the microphone fully in the calibrator. Switch at 94 dB.

2 Barometer

seconds

1. Click **Cal Baro**. It runs by itself.
2. Wait for **Barometric Sensor Cal Complete**. Click **Okay** and check that **Cal Baro** is green.

3 Low-pressure sensors

approx. 3½ min

1. Click **Cal LP Sensors**. The graph steps up and down twice: once to calibrate, once to check.
2. Do not touch the hoses or the headform while it runs.
3. At **Low Pressure Sensor Cal Complete**, take the mouth fitting out of the headform mouth and the eye fitting off the eye sensor. Then click **OK**.

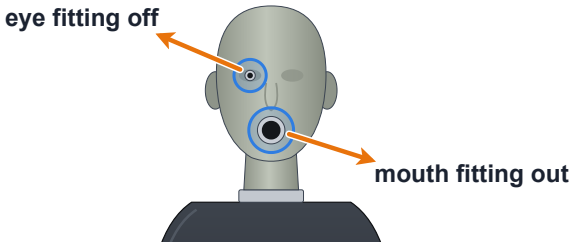


Figure 8-2. Then remove the mouth and eye fittings.

4 Medium-pressure sensor

approx. 2½ min

1. Click **Cal MP Sensor**. The pressure steps up and back down.
2. Wait for **Medium Pressure Sensor Cal Complete**. Click **Okay** and check that **Cal MP Sensor** is green.

5 High-pressure sensor

approx. 5 min

⚠ WARNING

The kit is at full pressure. Stay clear of the fittings. If you hear a leak, press **E STOP**, then close the air source valve at once.

1. Click **Cal HP Sensor**. The pressure steps up to full pressure and back down.
2. Wait for **High Pressure Sensor Cal Complete**, then click **Okay**.
3. Check that all five sensor buttons are green and **Sensor Cal Status** shows **ON**.

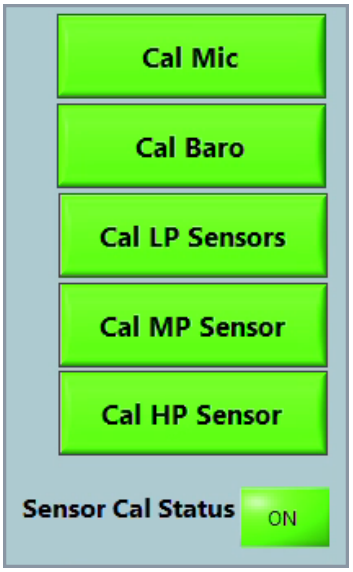


Figure 8-3. When all five calibration buttons are green, Sensor Cal Status shows ON.

NOTE If a button turns red, that step has not passed. See Section 12, “A button turns red”.

9 Functional checks

These two checks use the headform. The lung inside it moves on its own: keep your fingers out of the headform mouth while it moves.

1 ISO leak check

approx. 4 min

⚠ CAUTION

Moving part. The lung inside the headform moves on its own. Keep your fingers out of the headform mouth until it has stopped.

1. Click **ISO Leak Check**.
2. At **Open Headform to Atmoshphere** (sic), make sure nothing is in the headform mouth. Click **Okay**, then click **Position Motor**.
3. Wait until the lung stops moving. Then push the straight (not tapered) mouth plug into the headform mouth until its collar stops it. It cannot go in too far.
4. Use the green tapered plug only if the straight plug will not seal. Push it straight in and stop as soon as it seals: the tapered plug **can** go in too far, and then it blocks the sensing holes and the test is not valid.
5. Click **Start**. The test pulls a vacuum, settles for 60 s, then measures for 60 s. To pass, it must lose no more than 0.4 inH2O (0.1 kPa).
6. When asked **Is the system open to atmosphere?**: wait until the lung has stopped, take the mouth plug out, then click **OK**.
7. When asked about the **Exhale Valve**, answer **No**. Wait for **Leak Check Passed**.

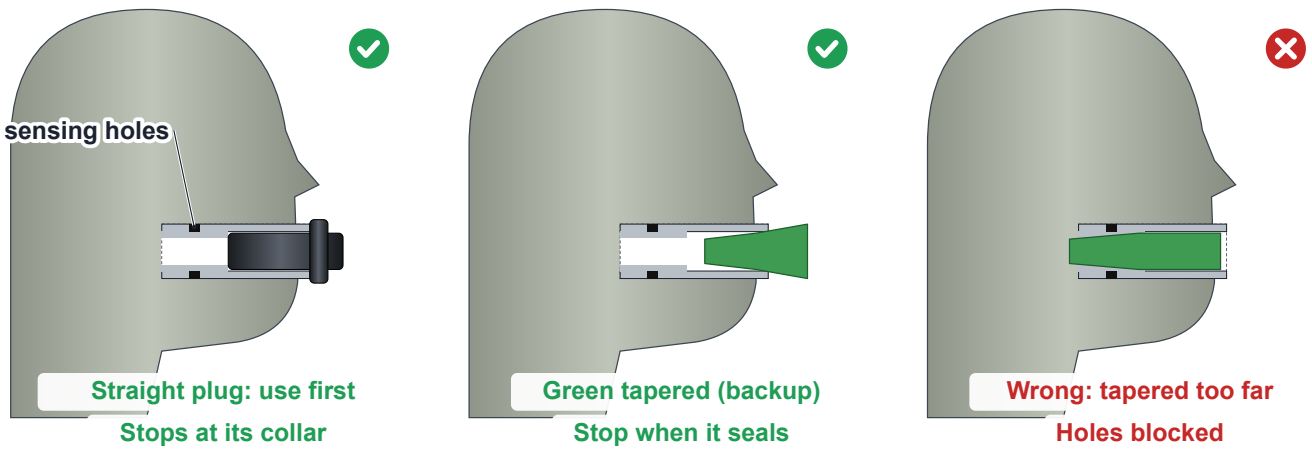


Figure 9-1. Straight plug first: it stops at its collar. Green tapered plug only as a backup: stop as soon as it seals.

2 Orifice check

approx. 3½ min

⚠ CAUTION

Moving part. Fit and change the orifice only while the lung is stopped.

1. Wait until the lung has stopped. Check the mouth plug is out (Step 1). Click **Orifice Check**.
2. When asked, push **Orifice A** (marked A) into the headform mouth with a slight twist.
3. A **Verify System Compliance** warning appears. It says the OMNIcheck must not run under extreme negative pressure, so the headform must be open to the air. Check that only the orifice is in the mouth and nothing blocks it. Then click **Okay**. If you cannot confirm this, do not click Okay: contact ATOR Labs.
4. When asked, change to **Orifice B**, with the lung stopped. Follow the messages until the check finishes.
5. Take the orifice out.

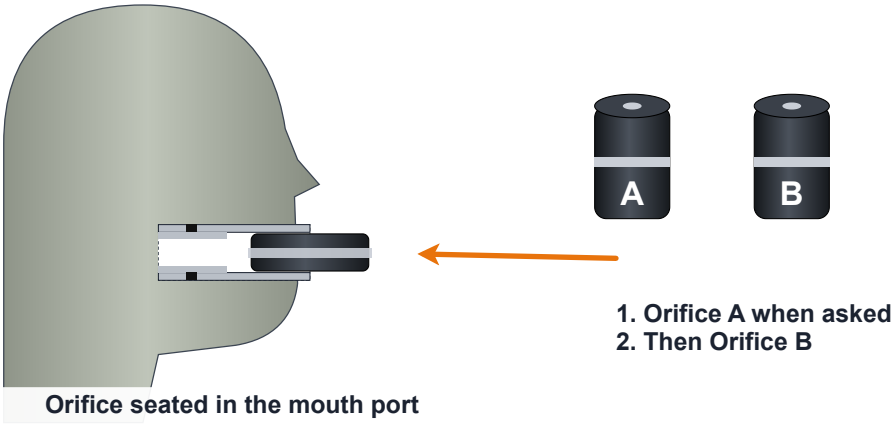


Figure 9-2. Orifice A first, then Orifice B, in the headform mouth.

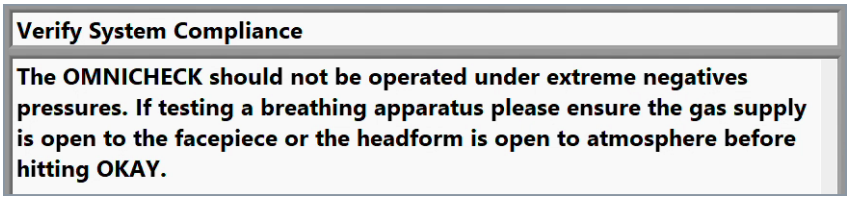


Figure 9-3. Verify System Compliance: confirm the headform is open to air through the orifice, then click Okay.

10 Finish and send the file

Check the results, then send one file to ATOR Labs. ATOR Labs issues your certificate.

1 Check the results

approx. 1 min

1. Check that the five sensor buttons, **ISO Leak Check** and **Orifice Check** are green.
2. Check that **Overall Cal Status** shows **ON**.
3. **HP Leak Checks** can stay grey if you skipped it in Section 7, Step 2.

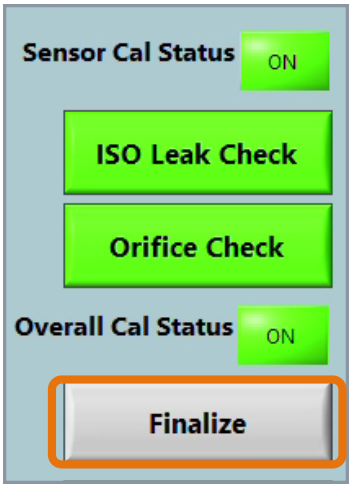


Figure 10-1. Ready to finish: click Finalize (boxed).

2 Finalize and email the file

approx. 2 min

1. Click **Finalize**. At **Email the data file to ATOR**, click **Okay**. The CalSessions folder opens (C:\omnicheck\CalSessions).
2. Pick the calibration file for the run you just finished: the newest by **Date modified**, with your OMNIcheck's serial number in its name and today's date. Do not go by its place in the list. If you cannot tell which file it is, contact ATOR Labs.
3. Email that file to **calibration@atorlabs.com**.

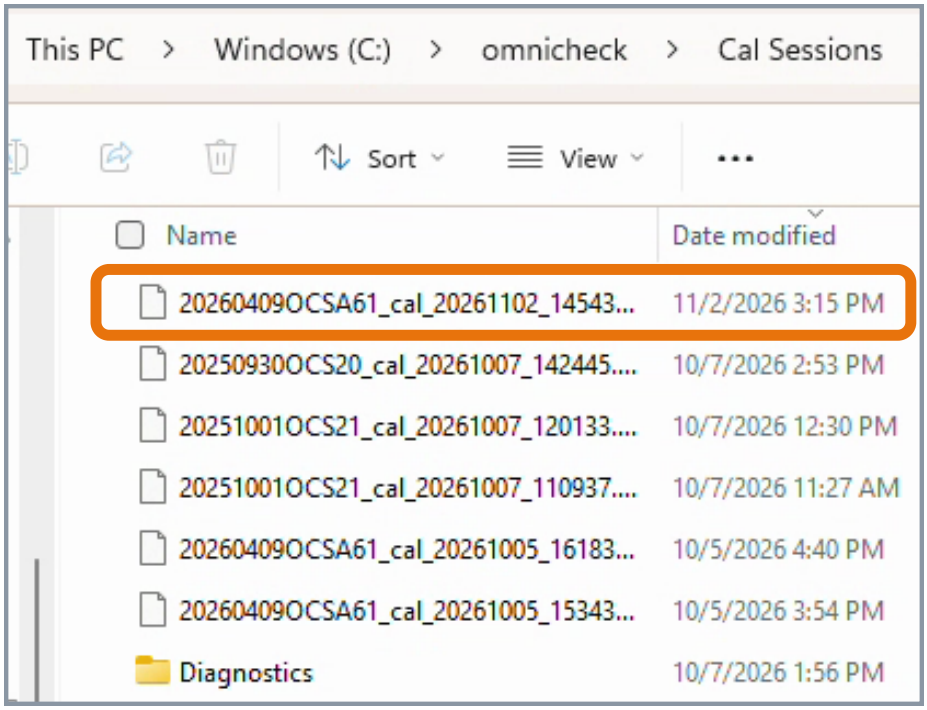


Figure 10-2. Pick the newest file by Date modified (boxed), with your OMNIcheck's serial number. Your file names will differ.

NOTICE

Send the file as it is. Do not rename, open or edit it. A changed file cannot be used for your certificate.

NOTE **Save Diagnostics** makes a separate report for ATOR support: only send it if ATOR Labs asks.

11 Shut down and pack

Close the air, vent it, and confirm there is no pressure left before you disconnect anything. Then pack the kit the way it arrived.

1 Close and vent the air

approx. 3 min

⚠ WARNING

Air can stay trapped after the venting stops. Do not disconnect, loosen or change any hose, or change the air source, until the one-minute check in item 4 is complete.

⚠ CAUTION

Keep your face and hands away from the bleed outlet while it vents.

1. Close the air source valve.
2. Open the bleed valve on the supply adapter **slowly**. The air vents loudly.
3. Wait until the air stops venting and **Supply Pressure** reads 0. Leave the bleed valve open.
4. **Stop and check for zero pressure.** Watch **Supply Pressure** for one minute: it must stay at 0. Listen at every fitting: there must be no air leak. If the reading rises or you hear air, leave everything connected, keep the source closed, and contact ATOR Labs.

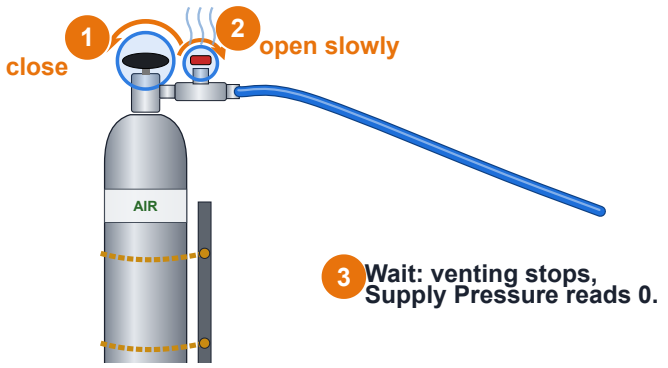


Figure 11-1. Close the source valve (1), then open the bleed valve slowly (2).

2 Power down

approx. 1 min

1. Close the OMNIcheck software.
2. Switch the Cal-Kit **OFF** (G).
3. Turn the OMNIcheck off.

NOTE Go on to Step 3 only after zero pressure is confirmed in Step 1.

3 Disconnect

approx. 3 min

⚠ CAUTION

Never force a connection apart. If one will not release, leave it connected and contact ATOR Labs.

To release a quick-connect: push the two halves together, pull the sleeve back, then pull the hose off.

1. Supply hose at the supply adapter. Then take the adapter off the air source.
2. Supply hose elbow at **HP IN** (A).
3. HP hose: unscrew it from the OMNIcheck, then release it from **HP OUT** (B).
4. MP hose: release it at the OMNIcheck medium-pressure inlet, then at **MP OUT** (C).
5. LP hose set at **LP OUT** (D): press the orange ring down and pull the hose out. (Its mouth and eye fittings were removed in Section 8, Step 3.)
6. USB: the Cal-Kit cable at **USB-DAQ** (F), and the OMNIcheck cables and microphone from the hub. Unplug the 24 V supply from the wall, then from **24 V** (E).

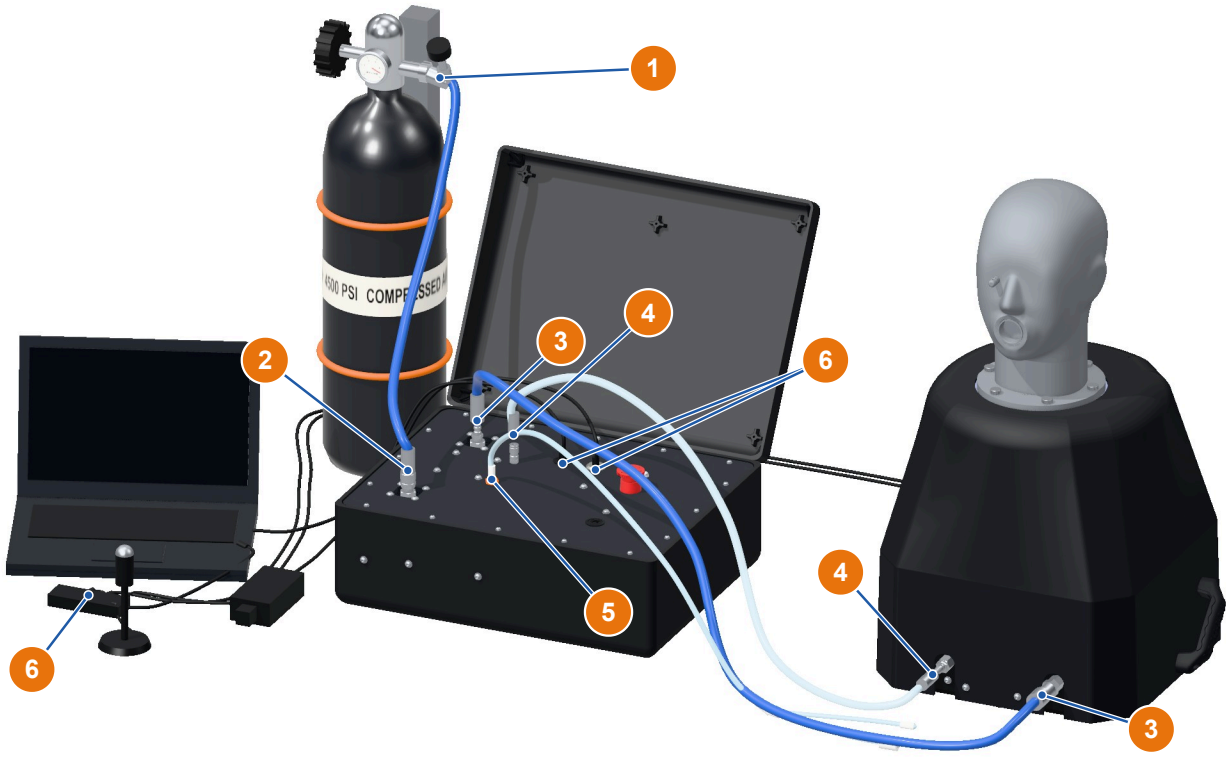


Figure 11-2. Disconnect in this order, 1 to 6. The numbers match the list.

4 Pack the case

approx. 8 min

1. Put the accessory-pouch items (Appendix A), including the clear MP hose and LP hose set, back in the pouch. Tick each one off.
2. Close and latch the Cal-Kit lid. Set the Cal-Kit in the bottom foam (1).
3. Coil both blue HP hoses in the channel around it (2): the supply hose and the hose tagged “HP TO OMNI”. They go in the foam, not in the pouch.
4. Fit the top foam (3), with the pouch in its cutout (4).
5. Close and latch the case. Put the prepaid return label from ATOR Labs on the case and ship it back.

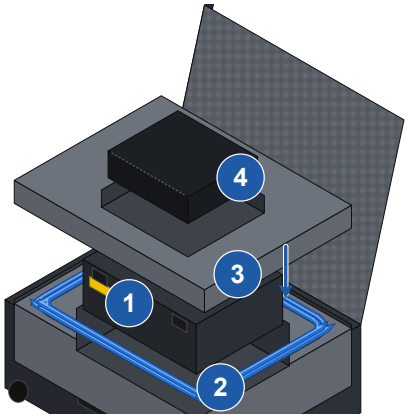


Figure 11-3. Cal-Kit (1), both blue HP hoses (2), top foam (3), pouch (4).

12 Troubleshooting

⚠ WARNING

Before you touch any fitting: close the air source valve, vent, and confirm zero pressure (Section 11, Step 1). Never tug, loosen, re-seat or cap a connection that is under pressure.

NOTE Before you contact ATOR Labs about a fault, click **Save Diagnostics**. The report helps support see what happened.

NOTE Retry a failed check once only. If it fails a second time, click **Save Diagnostics** and contact ATOR Labs.

Problem	What to do
No Auto Calibration button	1. Check the Cal-Kit is switched ON and its USB cable (F) is connected. 2. Check the OMNIcheck USB cables, the hub and the microphone (Section 5, Step 1). 3. Close and reopen the software. 4. Still no button: your OMNIcheck software may be too old (Section 2.2). Contact ATOR Labs for the Cal-Kit calibration app download link. Run the installer, start the app from its shortcut, and continue from Section 5, Step 3. Do not connect air until the calibration runs.
“The power is not on …”	1. Plug in the 24 V supply and switch the Cal-Kit ON. 2. Turn the OMNIcheck on. 3. Click **Okay**, then click **Initialize Machines** again.

Problem	What to do
USB Device Mismatch	1. Close the software completely. 2. Check the CMTeck microphone is plugged into the hub. In Windows Sound settings, check it is selected as the input and audio enhancements are off. 3. Reopen the software and click **Initialize Machines**. If you have not changed any connection, you can click **Okay** through the hose messages and skip leak checks that already passed. Then run **Cal Mic**. If it fails again, click **Save Diagnostics** and contact ATOR Labs.
Mic Read Error: no 1 kHz tone	1. Check the calibrator is ON and set to 94 dB. 2. Push the microphone fully into the calibrator, hold it still, and run **Cal Mic** once more. 3. If it fails a second time, click **Save Diagnostics** and contact ATOR Labs.
"Mic Cal Complete", but Cal Mic is still red	1. The message alone does not mean it passed. Run **Cal Mic** once more. 2. If it stays red, click **Save Diagnostics** and contact ATOR Labs.
A leak check fails	1. If you hear a leak, press **E STOP**, then close the air source valve at once. Do not touch any fitting while the kit is pressurized. 2. Vent and confirm zero pressure (Section 11, Step 1). If you pressed E STOP, release it (Section 1.3). 3. Only then re-seat each quick-connect and LP connection, and tug-test the LP hoses. 4. Open the air again (Section 6, Step 5) and run the leak check again. 5. If it fails again: for an LP leak check, find the leak with the diagnostic caps (next row). Otherwise click **Save Diagnostics** and contact ATOR Labs.
An LP leak check fails twice: find the leak with the caps	1. Each time before you touch a fitting: vent and confirm zero pressure (Section 11, Step 1). Open the air again (Section 6, Step 5) to run each check. 2. Pull the eye line off the Y-piece and fit a diagnostic cap on that arm. Run **LP Leak Checks**. 3. It passes: the leak is in the eye line or its fitting. Fit the spare eye fitting, take the cap off, reconnect the eye line, and run the check again. 4. It still fails: take the cap off and reconnect the eye line. Pull the mouth line off the Y-piece, cap that arm, and run the check. If it passes, fit the spare mouth fitting the same way. 5. With both arms capped, the check tests only the hose from the Cal-Kit to the Y-piece. If it fails like that, click **Save Diagnostics** and contact ATOR Labs. 6. Before you calibrate: take both caps off, reconnect both lines, and run **LP Leak Checks** with everything connected. It must pass.

Problem	What to do
A button turns red	1. Red means that step has not passed. 2. If you suspect a leak, follow “A leak check fails” first. 3. Run it again once. If it fails a second time, click **Save Diagnostics** and contact ATOR Labs.
An old FAIL result is shown during the orifice check	1. The check status can show a result from an earlier date. Check the date beside it. 2. A result from another date is not the result of this run. 3. Judge this run by the buttons in Section 10, Step 1. If they disagree, or you cannot tell which result is current, click **Save Diagnostics** and contact ATOR Labs before you finalize.
The mouth plug will not seal	1. Keep your fingers out of the headform mouth while the lung moves. Wait until it has stopped. 2. Push the straight plug in until its collar stops it. 3. If it will not seal, use the green tapered plug: push it straight in and stop as soon as it seals. Pushed too far, it blocks the sensing holes. 4. If neither plug seals, contact ATOR Labs.
Supply Pressure below 4,500 psi, or the HP calibration cannot reach full pressure	1. Close the air source valve. 2. Do not change the air source until you have vented and confirmed zero pressure (Section 11, Step 1). 3. Fit a fuller supply (Section 6, Step 3), then open the air again (Section 6, Step 5). 4. Next time on a single cylinder, consider skipping the HP leak check (Section 7, Step 2) to save air.
You hear a leak, or pressure keeps rising	1. Press **E STOP**, on the panel or on the screen. 2. Close the air source valve at once. If it stays open, air keeps bleeding out through the kit and empties your cylinder. 3. Do not touch any fitting until you have vented and confirmed zero pressure (Section 11, Step 1). Restart only as in Section 1.3.
Not sure which file to send	1. Open C:\omnicheck\CalSessions. 2. Pick the newest file by Date modified, with your OMNIcheck's serial number and today's date. 3. Do not send a Diagnostics file unless ATOR Labs asks.

Still stuck? Click **Save Diagnostics**, then contact ATOR Labs: +1 850-807-7886 · info@atorlabs.com

A Packing list

Tick each item when you unpack (Section 4), and again when you pack it back (Section 11, Step 4).

#	Item	Qty	Unpacked	Packed
Shipping case				
1	Wheeled shipping case, with lid foam	1	☐	☐
2	Top foam layer (pouch cutout)	1	☐	☐
3	Bottom foam (Cal-Kit cutout and hose channel)	1	☐	☐
Bottom layer				
4	Cal-Kit (black panel case, yellow label)	1	☐	☐
5	Blue HP supply hose, 48 in (4 ft), elbow end	1	☐	☐
6	Blue HP hose tagged “HP TO OMNI”	1	☐	☐
Accessory pouch				
7	Sound calibrator (CM-C200), in its bag	1	☐	☐
8	24 V power supply and cord	1	☐	☐
9	USB cable, Cal-Kit to PC	1	☐	☐
10	Clear MP hose	1	☐	☐
11	Clear LP hose set: Cal-Kit hose, Y-piece, mouth and eye lines	1	☐	☐
12	Supply adapter: tee with bleed valve	1	☐	☐
13	Mouth plugs: one straight (use first), one green tapered (backup)	2	☐	☐
14	Orifice A and Orifice B (marked A and B)	2	☐	☐
15	Diagnostic caps (2), spare mouth fitting and spare eye fitting (for finding an LP leak)	2 + 1 + 1	☐	☐
Paperwork				
16	These instructions	1	☐	☐

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Calibration files: **calibration@atorlabs.com**