CLEANCAB INSTALLER
INSTALLATION & OPERATIONAL CHECK PROCEDURE

Quick field procedure for installing, testing and commissioning a Cleancab cabin pressurisation system

Purpose: Follow this procedure in order. Do not consider the installation complete until the mechanical installation, airflow path, cabin pressure, fan speed, CO■ performance and commissioning records have been checked.

Important: This is a simplified installer procedure based on the supplied Cleancab documents. A machine/site-specific risk assessment and work instruction must still be completed before installation.

1. BEFORE STARTING

- ■ Complete the machine/site risk assessment and isolate the machine.
- ■ Confirm the correct Cleancab pressuriser, filters, monitor and sensor box are available.
- ■ Have the HEPA filter certificate available.
- ■ Record the Donaldson pre-filter part number (supplied commissioning procedure: P958647).
- ■ Record the recirculation filter part number/serial number if fitted.
- ■ Have the Cleancab Technician App available and technician login details ready.

2. CHECK THE CABIN & HVAC

- ■ Locate the factory fresh-air filter and remove the factory filter where required.
- ■ Remove/disconnect the fresh-air/recirculation flap if fitted, as required for the machine.
- ■ Note not all machines have a fresh-air/recirculation flap.
- ■ Inspect the HVAC evaporator box for damage or poor seals; repair as required.
- ■ Clean the evaporator core if required using appropriate safety procedures.
- ■ Check door seals, window seals, access panels and other obvious cabin leakage points.
- ■ Plan to introduce the filtered pressurised air into the HVAC fresh-air/plenum path.

3. INSTALL THE PRESSURISER

- ■ Select a suitable mounting position away from engine/exhaust contamination sources.
- ■ Mount horizontal or vertical using the correct cover.
- ■ Ensure the Donaldson PowerCore vacuator valve faces DOWN.
- ■ Secure the housing using four bolts.
- ■ Position the outlet duct to suit the machine.
- ■ Seal the duct and any blanking plates.
- ■ Reassemble the pressuriser and confirm everything is secure.

4. CONNECT FILTERED AIR TO THE CABIN

- ■ Fit the correct adapter to the HVAC fresh-air inlet.
- ■ Use the supplied adapter where available; the supplied installation instruction specifies a 75 mm outlet where an adapter is manufactured.
- ■ Connect the pressuriser to the adapter with 76 mm ducting.
- ■ Keep the ducting secure, unrestricted and protected from damage.
- ■ Check all connections and seals for air leakage.
- ■ Confirm the HEPA filter is correctly seated and the filter certificate is retained.

5. INSTALL MONITOR & SENSOR BOX

- ■ Mount the cabin pressure monitor in a safe, visible location.
- ■ Mount the sensor box where it is protected and cannot be obstructed.

■ Keep the sensor box clear of clothing, paper, tools and other objects.

■ For CO■ measurement, position the sensor near the recirculation filter where practical and away from direct HVAC discharge.

■ install the pressure sensor tube and sensor filter taking care not to crimp the tube.

■ Check all electrical and sensor connectors are secure.

6. POWER-UP & BASIC FUNCTION CHECK

■ Restore power and start the system.

■ Confirm the sensor-box LED indicates normal operation.

■ Confirm the monitor turns on.

■ Confirm the pressuriser motor starts.

■ Listen for abnormal noise or vibration.

■ Check wiring, earths and connectors if the system does not operate.

7. PRESSURE TEST – HVAC OFF

■ Close all doors and windows.

■ Start the machine.

■ Switch the factory HVAC system OFF.

■ In the Cleancab Technician App, run the 100% fan/pressure test.

■ Record the maximum pressure achieved.

■ Return the 100% fan test control to OFF when finished.

■ Allow the system to stabilise at the target pressure.

■ Factory target pressure is 35 Pa; system is required to be above 20 Pa as required and 35–50 Pa as recommended.

■ Record the fan speed required to maintain target pressure.

■ A good sealed cabin should achieve 35 Pa at less than 60% fan speed; the annual checklist identifies 20–60% as the recommended operating range.

■ If pressure cannot be achieved or fan speed is excessive, DO NOT simply increase the fan setting—carry out the cabin sealing checks below.

8. CABIN SEALING CHECK – IF REQUIRED

■ Check door and window seals.

■ Check access panels and HVAC penetrations.

■ Check duct and adapter connections.

■ Use a suitable smoke test to identify significant cabin leakage.

■ Repair/reseal leakage points.

■ Repeat the pressure test.

■ Remember: better cabin sealing reduces the airflow required to maintain pressure and reduces additional HVAC heat load.

9. CO■ CHECK

■ Complete the CO■ verification after the system has stabilised.

■ Initial ambient test: HVAC at minimum fan speed 2, doors closed, no operator, run for 5–10 minutes.

■ Typical ambient CO■ should be approximately 400–600 ppm according to the supplied procedure.

■ If ambient CO■ is high, move the machine to an open area and repeat.

■ Check that the pressuriser intake is not too close to engine exhaust.

■ With acceptable ambient CO■, have one person occupy the cabin for 15 minutes. complete commissioning information during this time.

■ Record CO■ during the test.

■ The supplied procedure states that CO■ should stabilise at no more than 400 ppm above ambient and should not exceed 900–1000 ppm total.

■ If CO■ is high, check pressuriser fan speed, recirculation filter condition and sensor location.

■ Use the Cleancab app recorder if required to document the test.

10. COMMISSION THE SYSTEM

■ Connect to the Cleancab Technician App.

■ Enter commissioning details.

■ Enter all filter details.

■ Confirm pressure/sensor calibration as required by the approved procedure.

■ Enter the maximum 100% fan test pressure in the report.

■ Save/export the commissioning report.

■ Save relevant fault/filter history before clearing it.

■ Keep the HEPA certificate with the machine records.

11. FINAL HANDOVER CHECK

■ Pressuriser securely mounted.

■ Ducting secure and sealed.

■ Filters correctly installed and recorded.

■ Monitor and sensor box secure and unobstructed.

■ System starts and operates normally.

■ Maximum pressure recorded.

■ Target pressure recorded.

■ Fan speed at target pressure recorded.

■ Cabin sealing completed/repaired if required.

■ CO■ test completed.

■ Warning/information stickers fitted.

■ Operator manual supplied.

■ Commissioning report completed and saved.

QUICK TROUBLESHOOTING

Condition	First checks
System will not turn on	Check sensor-box LED, earth, power and connectors. caheck system voltage 24V
Monitor off but sensor LED on	Check cable between sensor box and monitor, connectors, damage and continuity.
Low pressure / high fan speed	Check filter condition, filter seating, duct restriction, duct leakage and cabin seals. Perform a smoke sealing test.
CO■ alarm	Check HVAC operation, sensor location, recirculation filter, pressuriser fan speed and cabin ventilation/sealing.
High ambient CO■	Repeat the test in an open area and check the pressuriser intake for exhaust contamination.
Abnormal noise/vibration	Stop and inspect the pressuriser mounting, fan, housing and ducting.
Fan remains at 100% after pressure test	Return the 100% pressure-test control to OFF in the app.

INSTALLER RECORD

Machine / asset	_____
Customer	_____
Technician	_____
Date	_____
Maximum pressure at 100% fan	_____ Pa
Target pressure	_____ Pa
Fan speed at target pressure	_____ %
Ambient CO■	_____ ppm
15-minute CO■ result	_____ ppm
Commissioning report saved	■ Yes
HEPA certificate retained	■ Yes
Final installation accepted	■ Yes