TROLEX

XD1$^+$ Compliance Check FAQs

Why do I need to carry out a compliance check to my device?
Carrying out a compliance check to your device tests that your it's monitoring for the correct size dust particles. This means that when your device is in use, you know that it's monitoring for all particulates ranging from PM1 to PM10.

What do I get in my compliance box?
You'll get enough reference dust to carry out a compliance test for an entire year. You'll get

• 1 x base station that the device sits in

• 1 x hood with a hole for the dust particles to be sprayed through

• 4 x vials of reference dust which contains different sized particles

• 4 x asperators (or spray bottles)

What happens to my device during a compliance check?
The sensor is expecting a range of dust particles between 0.3 and 40ug during this test, when the dust sample is applied the laser will size the dust particles and organise them in to the correct bins and then analyse the data, if all bins are filled this confirms the laser is working across the complete range and the unit will confirm this with a PASS indication.

In the event that your device fails its compliance check, we recommend you that you run a sensor cleaning operation as highlighted in section 15.2 of the user manual.

How often should I carry out a compliance check to my device?
We recommend that a compliance every 3 months. However, in activities where your unit is exposed to extremely high levels of dust, this should be done more frequently to ensure your device is working as required.

What 'certified dust sample' does the compliance check use?
Arizona Road dust (ARD 10).

Is there guidance to the level of unit maintenance required based on environmental dust loadings?

Dust loading	Average dust loading (mg/m^3)	Expected maintenance schedule
Low	Up to 5 mg/m^3	6 to 12 months
Medium	Up to 10 mg/m^3	3 to 6 months
High	10 mg/m^3 or above	1 to 3 months

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How many compliance checks do I get out of a single vial of reference dust?
You should get approximately 5 compliance checks to 5 different units out of 1 vial of reference dust. We recommend this because the longer you keep the reference dust in the asperator (or spray bottle), the higher the chance that moisture will get in and cause the dust to merge, which will cause your device to not monitor for the correct size dusts.

Can I get longer out of a single vial of reference dust?
You can, but we strongly recommend against doing this to avoid the possibility of moisture entering the asperator (or spray bottle), Moisture will contaminate the dust sample causing the particulate sensor to not record all dust sizes.

In the event that you do, if possible you should warm the dust sample at 65°C for two hours and then shake the asperator enough times to allow the dust particles to separate. In the event of a "Fail" result, this will often be the cause.

What is best practice for maintaining my XD1$^+$?
We recommend regularly carrying out the following actions in the order they appear:

1. Check for external damage to the device. Plastic parts should not be cracked or broken which could affect the IP rating of the product.

2. Check for damage or wear to the main product membrane, LED icons and power /function switch.

3. Check for damage to the USB data / charge port.

4. Remove the silicon cover and regularly cleaning with a damp warm cloth to prevent stray dust particles.

5. Wipe the unit down with a damp cloth at the end of the day after use.

6. Use a small paint brush clean the any external dust or debris caught within the grille.

7. Use canned compressed clean air, spray the device inlet for 10 to 15 seconds to clean the dust path.

8. Wipe down the **XD1$^+$** inlet surfaces with a damp cloth to remove any external dust and debris.

What is best practice for compliance checking my device?
You can follow a step-by-step guide for conducting your compliance check **here** or by scanning the QR code.

Get in touch

If you have any questions, please reach out to **info@trolex.com** and one of our experts will be able to provide further guidance. Further documentation regarding your **XD1$^+$** device can be found at **trolex.com/xd1**.

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