



DX.260 BT Operation

Operation Guide

1 DX.260 BT Operation (DX260-1BT)

When the equipment is first switched on the smoke head should be firmly positioned onto its charging base and the unit should be allowed to charge for a minimum of five to six hours (or preferably left overnight) to fully charge the batteries.

The equipment screen will prompt the user to return the smoke head to its charging base between tests. This must be obeyed in order to proceed further. Failure to return the smoke head to its base will result in a depletion of the battery charge. The test will not continue until the smoke head has been returned.

- Blue flashing LED indicates battery charging operation only.
- Ensure the smoke head is firmly positioned on its charger base.

2 Battery Charging

2.1 Care, Modes & Endurance

The DX260-1BT wireless smoke head contains a Multi-Cell Rechargeable Battery designed to give a maximum of 1.5 hours endurance from a full charge.

The Smoke head must always be replaced on the charging cradle in between tests. To recharge, the smoke head must be returned to and correctly located on its charging cradle. This will maximise the battery endurance and is also necessary for test results to be printed. On the handle of the smoke head is a highly visible blue light emitting Diode (LED). This LED gives indication of the status of the smoke head whether or not it is on its charging cradle.

The nominal endurance of the internal battery pack is 1.5 hours continuous use from a full charge and cold start. This will vary according to ambient temperature. For optimum use and battery life, the smoke head should be removed from the charging cradle for the minimum amount of time and returned to the charger immediately after testing or as prompted by the smoke test software.

The rate of charging is dependent on a combination of battery voltage and battery temperature. If the smoke head has seen reasonable use the charger will switch to 'Fast Charge', taking approximately 1.5 hours to fully recharge. Once full terminal voltage has been reached, the battery charging rate is reduced to 'Trickle Charge'. When charging for a protracted period, for example overnight, a trickle charge of 15 hours will completely recharge the internal battery. A blue LED on the Handle indicates the charging status.

It is strongly advised that the Charger Cradle be left permanently switched ON with the smoke head in situ overnight to ensure full operational usage at beginning of the working day.

It is also strongly recommended that the batteries be completely discharged on a monthly basis by setting the program to Live Readings with the smoke head off the charger. This could be done at the end of the working day. Please note that rechargeable batteries have a finite lifespan, therefore the battery pack will need to be replaced periodically if the smoke head is no longer sustaining sufficient charge for correct operation.

Please contact Product Support on 0844 665 7610 for battery replacement information.

3 LED Indication

3.1 Smoke head removed from Charging Cradle:

LED 'On' continuously:

Smoke head is running on internal Battery.

LED pulsing 'ON' for 2 seconds, 'OFF' for 0.5 seconds:

Smoke head battery has reached a Low Voltage condition, and has less than 10 minutes life left before Auto-shutdown.

LED 'OFF':

- Low Voltage condition.
- Smoke head will auto shut down.
- No more testing possible until smoke head battery has been recharged.
- If the smoke head has received no communication from host computer for over 6 minutes it will go into 'Sleep' mode.
- Return the smoke head to the charging unit to invoke a response

If the smoke head is taken outside its maximum operating range of about 100 metres, and wireless communication is no longer possible, after 6 minutes the smoke head will go into 'Sleep' mode.

To recover from 'Sleep' mode:

The Smoke head should be put back in its charging cradle, and the LED function observed.

3.2 Smoke head returned to Charging Cradle:

FAST CHARGE (2.5 flashes per second):

The smoke head is in 'Fast Charge' mode. The battery should fully charge within 1.5 hours.

TOP-UP CHARGE (1 flash per second):

The Fast Charge cycle has completed and the battery is being brought to full charge.

SLOW CHARGE (1 flash every 2 seconds):

The smoke head battery is in 'Slow Charge' mode, the charging rate determined by either terminal voltage or battery cell temperature.

TRICKLE CHARGE (1 flash every 3 seconds):

LED Flashing ON/OFF - The smoke head battery is in 'Trickle-Charge' mode indicating that the batteries are fully charged.

3.3 Fault Diagnosis:

FAST FLICKER (8 flashes per second or more):

The smoke head has detected poor charging contacts. Clean the contacts on both the cradle and the smoke head feet and replace on charger.

LED NOT ILLUMINATED:

Return the smoke head to charging cradle. LED should display according to charging level required.

LED NOT ILLUMINATED WHEN SMOKEHEAD IS ON CHARGING CRADLE:

- Check that the smoke head is correctly seated on the charging Cradle. The smoke head has twin connectors on each insulated foot, and may be connected either way round.
- Check the charging cradle is connected to the 240V AC mains.
- Check that the sprung connectors that transmit the charging current on the charging cradle are clean and not stuck in a depressed condition.
- Check that the charging connectors on the insulated mounts on underside of the smoke head are clean and free of dirt and obstructions.

To check the charging Voltage at the Charging Cradle:

- Connect a digital multi-meter set to measure up to 30V DC to the two charging connectors on the charging cradle
- Depress the central charging sensor
- A voltage of 28V to 30V DC should register on the multi-meter display

The internal battery pack has a finite lifespan and will need to be replaced periodically. This should be carried out by a qualified service engineer.

4 Overnight Charging

As previously stated, the charger cradle should be left permanently switched ON with the smoke head in situ overnight to ensure full operational usage at beginning of the working day.

The procedure for doing this is as follows:

- The mains power should remain switched on.
- Shut down the PC in the normal manner using windows
- Switch off the trolley using the white rocker switch next to the power input





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