FRASER
Anti-Static Techniques

OPERATING INSTRUCTIONS

4110, 4125B & 4125T IONISED AIRGUNS

Fraser Ionised Airguns are very powerful static eliminators. They offer unrivalled performance with simple installation and low maintenance. However, please follow these installation notes carefully. Incorrect installation will result in unsatisfactory performance.

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1. System: How it works:

The system consists of a hand-held Ionised Airgun and a Power Unit. Instructions for the Power Unit are provided separately.

The Ionised Airgun consists of a hand trigger, air nozzle and an ionisation head engineered into the finger guard. When the trigger is pulled air travels at high speed from the nozzle picking up the ionised air produced by the ionisation head. Ionised air contains positive and negative ions which are able to neutralise the static charge on the product and remove statically attracted dust.

4110

4125B

4125T

2. Checking the Equipment Delivered

The equipment leaves our factory in suitable protective packaging. Please check that it is undamaged when it arrives. If there is visible damage contact the factory or one of our distributors immediately, before carrying out any installation.

Check that the parts which have been delivered are the same as you have ordered.

3. Electrical Connections

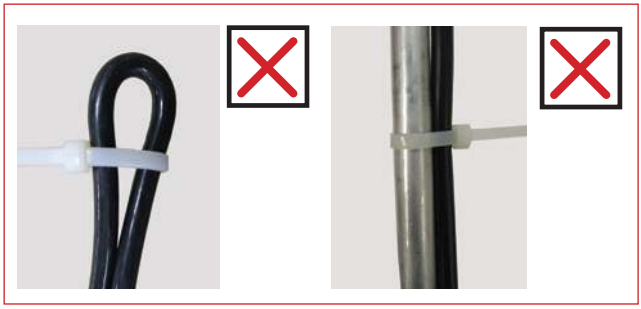
The Ionised Airgun is connected to the Power Unit.

The HT cable between the Gun and the Power Unit is screened to prevent RFI interference. It is connected to earth through the connection on the Power Unit, which must be screwed tight - see separate instructions.

We recommend that the electricity is switched off at the Power Unit when the gun is not in use.

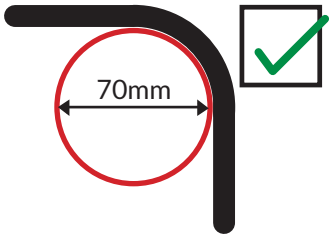
It is important to avoid tension on the HT cable. Attach it to the air hose with gaffer tape for strain relief, or take similar precautions.

Hi-flex cable is made to a high specification, but all HT cables must be treated carefully. Sharp bends will damage the insulation and lead to breakdown. It is very important that cable ties are not used to fix the cable (for example to an airpipe) and that the cable is not bent more than 50mm diameter. See sketches below:



No tight bends

Cable ties can damage the Cable



Min. bend diameter 70mm

4. Air Connection & Supply

The fitting on the Gun handle is 1/4 BSP.

Air hose. To avoid air starvation the minimum size of air hose for these Airguns is:

4110: 4mm internal diameter

4125: 6mm internal diameter

The air supply should be clean and dry.

A pressure regulator is recommended to set the best pressure for the job to be done. The maximum pressure that the Guns can accept is 7 Bar (100 psi). Typical working pressures are 3 - 5 Bar (44 - 71 psi).

The air consumption at 5 Bar is:

4110: 250 litres/min (9 cfm)

4125: 560 litres/min (20cfm).

5. Checking the System and Troubleshooting

The simplest method of checking that the system is operating is:

- Use a screw driver with an insulated handle. With the metal shaft touching the air nozzle (to earth it) allow the tip to approach the emitter pin in the ionisation head. You should be able to see a small spark from the pin to the tip of the screw driver.
- The ionisation head also makes a slight “buzzing” sound.
- If the system is not functioning - check the incoming mains electricity and the fuse on the Power Unit. If this does not resolve the problem, contact the manufacturer or a distributor.
- The Power Unit has a current limitation of 5mA which ensures the safety of the system. If there is a short on the Gun it will try to draw more current than 5mA. When this happens the Power Unit will shut down.

6. Maintenance

Switch off Power Unit before starting maintenance.

The ionisation head should be free from dust and other contaminants. Use compressed air or a soft brush to clean around the emitter pin.

7. Health and Safety

The ozone generated by this product is less than 0.1ppm and within internationally accepted limits

Please note, when handling and cleaning, that the emitter pin is sharp and care is needed.

8. Declaration of Conformity

We declare that this equipment conforms to the following EC Directives:

89/336/EEC (Electromagnetic Compatibility)

- EN 50081-1
- EN 50081-2
- EN 50082-1
- EN 50082-2

72/23/EEC (Low Voltage Directive)

- Electrical Equipment (Safety) Regulations 1994

And is entitled to display the CE Mark.

For more information about static and to view the full range of our products, please visit www.fraser-antistatic.co.uk

FRASER
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