



# Operating Manual

**Model 954v2**  
**Ionising Airgun**



# Contents

Introduction	3
Unpacking and Inspection	4
General Notes On Operation	4
Installation	5
Compressed Air	5
Electrical connection	5
Performance	5
Health and Safety	6
Maintenance	6
Technical Specification	8
CE Approval	8
Fault Finding	9

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# Introduction



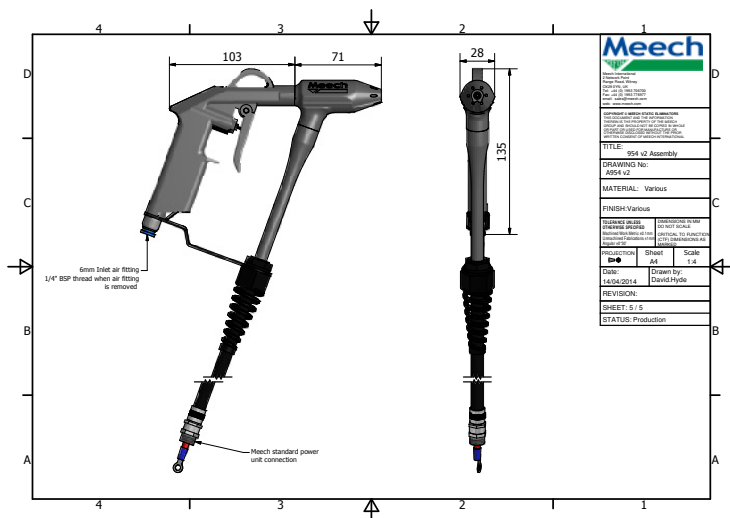
The Meech 954v2 Ionising Air Gun is an upgraded model that provides exceptional performance when neutralising static charges and removing dust and contamination on a wide range of industrial processes. The 954v2 has many improvements over its predecessors due to innovations in engineering. These include the use of additive manufacturing that make the 954v2 60% faster and 40% lighter than the previous version.

## Unpacking and Inspection

The Model 954v2 Ionising Air Gun has been carefully packed at the factory in a container designed to protect it from accidental damage. Nevertheless, we recommend careful examination of the carton and contents for any damage. If damage is evident, do not destroy the carton or packing material and immediately notify the carrier of a possible damage claim. Shipping claims must be made by the consignee to the delivering carrier.

## General Notes On Operation

The typical Meech ionised air gun installation consists of one or more guns connected to a Meech power unit.



The power unit provides the high voltage ac supply that is required for effective ionisation. The ionising airgun is connected to the power unit by a tough, flexible conduit and high voltage cable. The high voltage is fed to a sharp titanium emitter pin via a safety resistor that renders the pin safe to touch. A corona is generated at the tip of the pin, ionising the surrounding airflow.

The ionised airflow will neutralise the target surface, releasing the surface contamination and allowing it to be blown off.

# Installation

## Compressed Air

The compressed air supply must be clean and dry. Meech recommend the use of a 5 micron coalescing filter. Water or oil in the air will damage this product. The Meech guarantee does not cover this. The use of a pressure regulator will allow the pressure to the gun to be set to the correct level for the application.

A typical operating pressure for the 954v2 is 3.5 bar / 50 psi. This gives a good balance of ionisation and cleaning performance. However, depending on the application, higher or lower pressures may be required. Air Connection to the 954v2 is via a standard 6mm push-fit fitting.

## Electrical connection

Electrical connection is to a Meech Model 904 7kV power supply. Please refer to the 904 Power Supply operating instructions to ensure that your ionising gun is correctly and safely connected to its power supply. A copy of this can be downloaded from [www.meech.com](http://www.meech.com)

## Performance

5000V to 500V decay tests were carried out at 150mm distance in accordance with ESD Association standard S3.1

Pressure PSI	Noise dBA	Decay +5000 to <100V
30	74	0.8
40	76	0.4
50	79	0.4
60	80	0.3
70	80	0.3
80	81	0.3

# Health And Safety

Ozone: Considerably below international standard of 0.1ppm

Dead End Pressure: Meets 30 psi safety pressure at maximum usage pressure of 100psi

## Maintenance

Ionisers require periodic cleaning. During normal operation, dirt may build-up on the emitter pin. The rate of this contamination will depend on the cleanliness of the compressed air supply. The contamination will cause a reduction in performance. Typically, weekly inspection/cleaning is sufficient.

The emitter and the inside of the nozzles can usually be cleaned using a cotton bud. If the emitter has become very dirty, it may need to be removed before cleaning. To remove the emitter, insert a 3mm nut spinner into the end of the nozzle and unscrew it counter-clockwise.

The nut spinner Meech use is a BAHCO (BE-7803)





Once removed, the pin can be cleaned. A toothbrush is deal for this.



The exterior of the nozzle can be wiped down with a damp cloth.



Should you have any additional questions regarding the maintenance of Meech equipment please contact Meech International directly or your local Meech distributor.

# Technical Specification

## Model 954v2

Max pressure	:	6.8 Bar/100PSI
Recommended pressure	:	3.4 Bar/ 50PSI
Operating voltage	:	7kV from Meech 904 power unit
Max Temperature	:	85°C.
Construction	:	Gun handles – cast aluminium Nozzle body - Nylon
Weight	:	300 g approx
Cable	:	3 metres of H.T. cable supplied as standard longer lengths can be specified when ordered.

## CE Approval

An EC declaration of conformity for this product exists in respect of the Low Voltage Directive :72/23/EEC (“LVD”) & Electromagnetic Compatibility Directive : 89/336/EEC (“EMCD”)



# Fault Finding

Tests must be completed by a qualified electrical engineer.  
If in doubt contact Meech head office or your local distributor.

**CAUTION:** Whilst no danger to personnel exists, it is essential that any high voltage ionising equipment, make no contact with water or water based fluids.

Should such an event occur, disconnect immediately and return equipment to the manufacture for water damage assessment.

The 954v2 ionising air gun forms parts of a system, comprising itself and a Model 904 power supply.



If, after following the cleaning instruction the system is believed not to be working effectively, the high voltage electrical supply should be checked.

The 904 power supply features a green neon indicator that will be illuminated if the high voltage output is operation correctly.



If the green neon indicator is illuminated and the nozzle is clean, the system will be working effectively.

If the green neon indicator is not illuminated, consult the operating manual for the 904 for further troubleshooting information.

For further help consult your local Meech distributor, or contact one of our worldwide offices. Contact details are available on the Meech website [www. http://meech.com/en/contact-us/](http://meech.com/en/contact-us/)









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