For Gun

INSTRUCTION

[1-1] General Description

The Ionizing Air Gun is a light weight, hand-held comressed air gun utilizing a static eliminating nozzle. The gun is primarily designed for simultaneously cleaning and neutalizing small or sensitive parts and materials. Neutralizing makes it easier to blow parts clean and prevents reattaction of dust and dirt particles. The gun is used in conjunction with a Power Unit which supplies the high voltage necessary for operation of the gun.

The gun is normally shipped completely assembled and connected to the power unit via a vinyl covered, high voltage inter connecting cable assembly. The cable is supplied in a standard 3 meter and 6 meter length.

One power supply with two ionizing air gun is available but one power supply with one ionizing is the best.

[1-2] SPECIFICATION

Caution: Do not operate this device in excess of specifications listed below or serious personal injury and/or damage to the equipment may result.

A. Air Supply Requipments:
   Clean, dry air; 15 to 100 psi.

B. Air Supply Connection:
   1/8" male PT connector in gun body; mating air conduit supplied by user.

C. High Voltage Requirement: (Supply to the Gun)
   4 KV derived from the Power Unit. Standard power unit normally supplied is 110V,60Hz, 220V, 50Hz .

D. Effective Neutralization Pattern:

E. Approximate Weight: 0.275 Kgs (gun only, less cable)

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[2-1] Installation of the Gun and Power Unit

The air gun and power unit are normally shipped completely assembled and wired. Installation is as follows:
The Power Unit shipped with the air gun is designed for wall, or flat surface mounting. Refer to the applicable instruction bulletin for the power unit mounting dimenstions and pertinent installation data.
For proper operation of the gun, and to prevent shock to operating personnel, it is important that the gun and power unit be properly grounded. The prewired interconnecting cable between the gun and power unit contains a standard copper (yellow Green) ground wire which provides the necessary ground connection between the gun and power unit. A grounding stud is located on the power unit, and must be connected to a good earth ground.
Air supply pressure to the air gun should be from 15 to 100 psi. Since contaminated air may clog the gun or cause a short circuit, it is important that the supply air be filtered upstream of the gun unit. Then, it is recommended the air hose be run adjacent to the interconnection cable, and taped together approximately every 150mm to aid in easier handling of the gun unit.

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[3-1] Operating Procedures

Caution: The Gun is not intended for use in hazardous area. DO NOT use near flammable materials orsolvents. When all electrical and high voltage air supply connections have been completed,the gun is ready for operation. Apply line power to the power unit.
For optimum operation, first clean the part with the gun held as close to the part to be cleaned as required to ensure complete dirt

and dust removal. Then direct the air flow over the part for a few seconds with the gun nozzle approxim ately 200-300 mm from the part. This second operation removes any small electrostatic charges which may remain when the gun is operated close to the part. Make certain the ionized air stream contacts all parts of the object to be cleaned to ensure complete neutralization and cleaning. When handling the gun, handle only by the gun body to prevent undue strain on the cable assembly.

[3-2] Operational Check

To determine if the gun is functioning properly, place the grounded metal shaft of an insulated screwdriver against the inner edge of the nozzle tip and approach the ionizing point with a sharp corner of the screwdriver blade until arcing occurs. The arc between the point and the screw driver blade should be approximately 2 - 3 mm.

[3-3] Routine Maintenance

For efficient operation, it is essential that the gun point be kept clean. The point may be cleaned by using an ordinary pencil eraser. With power unit off, carefully insert the eraser into the nozzle opening and gently press the eraser down over the point while rotating the eraser. This will safely remove any deposits which may have accumulated on the point.

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Caution: Do not attempt to scrape the point with any hard or sharp object which could cause damage to the point. The point must remain as sharp as possible for optimum operation. If it becomes dull or damaged, it must be replaced.