

## Installation and Operating Instructions For Simco-Ion Multi-Point DC Charging Bar

### Installation

The Simco-Ion Multi-Point DC Charging Bar is supplied complete with mounting clamp, high voltage cable, and spring loaded cable connector. Install the charging bar as follows:

- a. Mount the bar onto the machine with the points approximately  $\frac{1}{2}$  to 1 inch away from and facing the material to be pinned. The material to be pinned must rest against an electrically conductive background surface as it passes the charging bar. Since this background surface provides a ground reference which is essential for proper operation of the charging bar, it is important that it be properly grounded either through the machine frame or a separate ground wire connected to a good ground such as a cold water pipe, sprinkler system piping, grounded electrical conduit, etc.
- b. When mounting the bar it is important that the mounting bracket which supports the bar also be grounded. This may be bolted to a grounded member of the machine frame, or a separate ground wire may be connected between the mounting bracket and a good earth ground.
- c. When the bar has been positioned and mounted, check to make certain that the bar is not resting on or contacting any metal or conductive member of the machine. The only physical contact between the charging bar and the machine should be the mounting bracket.
- d. Insulated cable supports are provided for supporting the high voltage cable between the bar and the Simco-Ion power supply. The high voltage cable should be kept at least  $\frac{1}{4}$ " away from any conductive material or object. Press the split plastic bushing out of the metal support and install the bushing on the cable at the desired position. Mount the metal support and press the bushing and cable back into the support. Make certain the high voltage cable is well supported to prevent undue strain on the connection at the power supply via a spring loaded, high voltage cable connector which is normally supplied with the bar. The high voltage cable may be cut to length as required. Refer to the attached instruction for procedures on attaching the spring loaded cable connector.
- e. For safety and ease of operation when installing the power supply, Simco-Ion recommends connecting the power supply line cord to the electrical system of the user's machine in such a manner that the power supply is energized when the machine is in operation. This will ensure that the bar will not accidentally remain energized when the machine is turned off. Please note that the power supply must also be properly grounded for safe and efficient operation as described in the power supply instruction manual.
- f. Plug the spring loaded connector into the high voltage outlet of the power supply and finger tighten the connector. The unit is now ready for operation.

## **Operation**

**CAUTION: Do not touch the charging bar during operation or electrical shock could result. This equipment is not intended for use in hazardous areas; therefore, do not operate the bar in close proximity to any volatile solvents or materials.**

To place the equipment into operation, apply line power to the power unit. During operation, if electrical arcing should occur between the charging bar and the grounded conductive background surface, the bar may be positioned too close to the surface. Turn line power off and reposition the bar for more clearance until arcing stops. Nominal operating distance between the points and the background surface is normally ½ to 1 inch for most applications.

## **Maintenance**

The bar normally requires no maintenance other than cleaning. For optimum performance, the bar should remain as clean as possible.

Turn off power before attempting any maintenance on the equipment. Periodic use of a brush or compressed air will help prevent deposits from accumulating on the ionizing points. An ordinary pencil eraser may also be used by pressing the eraser down over each point while rotating the eraser. Do not attempt to scrape the points with any hard or sharp object which may damage the points. It is essential the points remain as sharp as possible for optimum operation.

Ink and resistant coatings may be removed by wiping the bar and points with Isopropyl Alcohol applied to a clean cloth. The alcohol must not contain additives. Do not pour on or soak the bar or any components in the alcohol. After cleaning wipe the bar and surrounding areas with a clean dry cloth. Do not apply power to the bar until all traces of alcohol have been removed.

