

PRECIUM SWEEP



STANDARD PRECIUM



Precium is a user-programmable electron-beam gun sweep. Instead of using manufacturer-determined sweep patterns, Precium allows end users to program, store, modify, and run individual sweep patterns to compensate for variabilities in individual electron beam guns. Each pattern is composed of "steps"; each step defines the X-Y coordinate of electron beam gun target and the duration, or the "dwelling" time. Users may program up to 100 steps for each pattern. Users may also define the maximum ranges for the X and Y coordinates to compensate

for variations of the individual of the individual electron beam guns. Precium also contains a RS-232 serial port to connect to an IBM compatible PC running Windows 98 or 2000. This allows transferring of user-programmed patterns between a PC and a Precium for greater flexibility in storing, designing, and automation. A sweep pattern can now be designed on a PC and transferred to one or more Preciums for better automation. Or, a sweep pattern can be experimented on one Precium, downloaded and fine-tuned on a PC, and re-uploaded to the original or other Preciums for higher productivity. Precium's interface with PC also allows sweep patterns to be stored on disks for future references.

Specifications:

- Up to 120 patterns may be programmed and stored in Precium.
- On-board Non-Volatile RAM (NVRAM) retains programmed patterns even when the power is turned off.
- Can switch between pre-programmed patterns on-the-fly while the electron beam gun is running.
- Allows PLC input to start running or switching patterns. This enables users to integrate Precium into an automated system.
- RS-232 serial connection with an IBM-compatible PC running Windows 98 or 2000.
- **PSLink**, a sweep pattern design and interface software for Windows 98/2000 is included.

PRECIUM II



Precium II is an upgraded version of Precium. Whereas Precium and PSLink allow easy creation, fine-tuning, transferring, and storing customized sweep patterns, using PSLink with Precium still requires human user input in real-time. Precium II comes with Programmable Sweep Interface (PSI) software, a dynamically linked library (DLL) of a variety of subroutines for communicating with and running the Precium II. The DLL provides subroutine interface for other user programs, such as LabView, to automate the tasks of transferring and running programs.

This allows further integration of Precium II into customers systems that have their own automation software.

The PSI DLL is written as an ActiveX EXE object for easy access by other programs. It communicates with Precium II in the background and provides subroutines for:

- Loading and saving sweep patterns to disk.
- Transferring sweep patterns from and to a Precium II.
- Reporting the status of the Precium II (whether it is ready for transfer, is currently transferring, or has finished transferring).

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