

SOFTWARE

LASER PHOTO PLOTTERS

DIRECT IMAGERS

## SilverWriter 8800-8820-8850 P



- Resolutions up to 25,400 ppi
- Raising the Throughput Benchmark
- Reliable 24/7/52
- Unequaled Accuracy
- Compatibility & Upgradeability

### MARKETS

- Rigid PCB Mfr ✓
- Flex PCB Mfr ✓
- Flex-Rigid PCB Mfr ✓
- HDI PCB Mfr ✓
- PCB Masslam Mfr ✓
- PCB Equipment Mfr
- PCB Traders
- PCB Designers
- PCB Test Centers
- IC Packaging ✓
- Chemical Milling ✓
- High Resolution Graphic Arts ✓
- Flat Panel Display ✓

### PRODUCT FAMILIES

- CAM
- PreCAM and Engineering
- Electrical Test
- Equipment Front Ends
- Format Converters & RIP's
- OEM Software

- Laser Photo Plotters ✓
- Direct Imagers

### Raising the Throughput Benchmark

The new SilverWriter 8000-P series introduces sophisticated new film-handling and operational sequencing to deliver up to **60% more films** per hour than Ucamco's previous market leader, the SilverWriter 800. **15 times faster** data processing handles the most complex PCB files without rasterizing delays. For maximum flexibility and cost control all machines can take **3 independent magazines** holding a total of **450 sheets** of film of 3 different sizes. New drive technology delivers unrivalled **uptime** and long-term reliability plus a **30% smaller foot-print** for easier installation.

### Reliable 24/7/52

The SilverWriter 8000-P is engineered for round the clock, **long-term reliability**. The ultra-stable granite bed, maintenance-free linear motor, air-bearings and the new direct-drive drum deliver unparalleled long-term uptime - your guarantee of on-time deliveries, low whole life costs and an optimum return on your investment.

### Unequaled Accuracy

With its unique optical system the SilverWriter 8000-P will plot the tightest tolerated designs with pin-sharp quality. 16 plot resolutions up to **25,400 ppi** (1 $\mu$ m) deliver the optimum setting for every image down to **12.7 $\mu$ m** features. Two unique imaging functions, syntectic modulation and **sub-micron** pixel-placement, eliminate the rounding errors found on conventional plots and hold line-width accuracy below 2 $\mu$ m. Dynamic beam positioning and the patented stress-free film loader ensure an unrivalled **geometric accuracy** on every plot for perfect side-to-side registration.

### Compatibility & Upgradeability

The SilverWriter 8000-P accepts plot instructions directly in Gerber, DPF, Genesis, OI5000 (Expert) or MDA formats, making it a "wheel-in" replacement for conventional plotters. **Choose** from standard, double or quad speed, up to 16 resolutions (metric and imperial) per machine, & 1 - 3 film magazines. With a well-proven **upgrade path** we can set up a SilverWriter 8000-P to your precise requirements now and in the future.

### Get more out of your photo plotter investment with GCS software

Ucamco's Geometric Correction System (GCS) automatically modifies phototools to compensate for the non-linear and linear distortions introduced into a panel during the manufacturing process. By improving layer registration, GCS delivers increased factory yields and extends the plant capabilities with confidence into higher levels of PCB technology.

For more info please contact your local Ucamco distributor or mail us at [info@ucamco.com](mailto:info@ucamco.com).

# SilverWriter 8800-8820-8850 P

## Technical Data

Resolutions	Imperial	Metrical	
Imperial	4,000 up to 25,000 ppi + 2000 ppi draft quality		
Metric	6.25 µm up to 1 µm + 12.7 µm draft quality		
Min. line width	0.5 mil	12.7 µm	
Productivity for an 18" x 24" plot (*)	8800-P	8820-P	8850-P
2000 ppi (in films / hour)	12.4	19.8	28.0
4,000 ppi (in films / hour)	7.1	12.4	19.8
8,000 ppi (in films / hour)	2.9	7.1	12.4
16,000 ppi (in films / hour)	2.0	3.9	7.1
25,000 ppi (in films / hour)	0.9	1.8	3.6
Film Requirements	Imperial	Metrical	
Film format along the drum	18" – 32" in ½" steps	457-813 mm	
Film format around the drum	24-29 in 1" steps"	610-736 mm	
Max. image format along the drum	0.2" (5 mm) less than film format		
Max. image format around the drum	0.9" (23 mm) less than film format		
Sheet tolerance	± 0.02"	± 0.5 mm	
Accuracy	Imperial	Metrical	
Geometric plotter accuracy	< 0.16 mil	< 4 µm	
Geometric plotter repeatability	< 0.08 mil	< 2 µm	
Global positioning accuracy	0.01 mil	0.25 µm	
Geometric accuracy on film	< 0.5 mil	< 12.5 µm	
Geometric repeatability on film	< 0.5 mil	< 12.5 µm	
Line-width accuracy	< 0.08 mil	< 2 µm	
Scaling adjustments	In steps of 0.2 µm		
Scaling adjustment range	± 5%		
Machine Characteristics	Imperial	Metrical	
Loading capacity	Up to 3 magazines. 150 sheets of film in each		
Light source	Red HeNe laser, 632.8 nm, 5 mW		
Dimensions (W x D)	72.8" x 61"	1850 x 1550 mm	
Height	54.3"	1380 mm	
Weight	3300 lbs	1500 kg	
Room temperature during operation	70° F ± 2°	21° C ± 1°	
Relative humidity during operation	50% ± 2%, no condensation		
Relative humidity rate of change	Max 6% per hour		
Electrical Power Supply	2 x 230 VAC, 2,000 VA		
Heat dissipation	2,000 W (1,725 kcal/h)		
Compressed air supply	87 – 145 PSI	6 – 10 bar	
Compressed air quality	Free of oil and water		0.01 mg/m <sup>3</sup>
Compressed air volume	88 ft <sup>3</sup> /hour	2500 l/hour	

(\*) Assuming nominal plotting using factory settings

### SOFTWARE

AutoCAM  
 FaultStation 4  
 FixGenius  
 FlashRip  
 Format Converters  
 Geometric Correction System  
 Integr8tor  
 Mult Job Panelizer  
 OEM Software  
 SmartAOI  
 SmartPlate  
 SmartTest  
 Ucam CAD Review  
 Ucam CAM++  
 Ucam Chemical Milling  
 Ucam ET+  
 Ucam SmartView  
 Ucam uFlex  
 UcamX

For more information on any of our products or services please contact us:

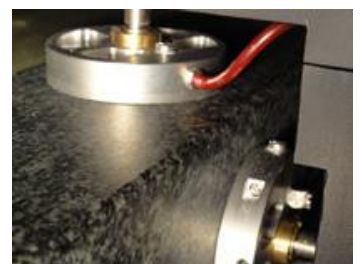
By e-mail: [info@ucamco.com](mailto:info@ucamco.com)  
 On the Web: [www.ucamco.com](http://www.ucamco.com)



Linear scale



Linear motor



Air bearings

Ucamco NV  
 Bijenstraat 19, 9051 Gent, Belgium  
 Tel: +32 9 216 99 00 - Fax: +32 9 216 99 12  
 E-mail: [info@ucamco.com](mailto:info@ucamco.com) - Web: [www.ucamco.com](http://www.ucamco.com)