

SP1000 Polishing Machine Ultra PC (< -55dB Reflectance) Polishing Process for Small Form Factor, SFF, LC- Compatible Single-mode Connectors

This process is designed to yield typical reflectance of less than -55dB. The SP1000-SFF-S Single-mode Ultra PC Connector Polishing Kit contains all film consumables required for this process. Other necessary items include alcohol, compressed or canned air, and distilled water. The LC polishing hardware kit, p/n CPF-LC-12-KIT, contains the polishing factor and backup pads required for this process.

Machine Setup: (See Table for times, pressures, and platen speeds)

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| <ul style="list-style-type: none"> a) The SP1000 Polishing Machine accommodates four separate polishing steps with unique time, pressure, and platen speed for each. b) Pressure and control adjustments are made using the eight independent knobs located on the back of the polishing machine (four pressure knobs, four rpm knobs). c) To adjust the pressure, place the supplied $\frac{3}{8}$-inch block on the platen and lower the polisher arm onto the block by pressing the button on the end of the arm. | <ul style="list-style-type: none"> d) Turn the platen speed knob number 1 to the zero position. e) Press green start button number 1 and adjust pressure control knob number 1 until the desired pressure is displayed on the front panel. f) Remove $\frac{3}{8}$-inch setup block from the platen. g) Adjust the platen speed by pressing green start button number 1 on the front of the machine and adjusting platen speed control knob number 1 until the desired rpm is displayed. h) Set timer number 1 to the desired polish time. i) Repeat steps c-h for subsequent polishing steps. |
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Polishing Procedure:

(NOTE: All times and pressures are based on the use of Corning Cable Systems connectors and fiber using F123 epoxy.)

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| <ul style="list-style-type: none"> 1. Polishing fixture, p/n CPF-LC-12, is used for the LC UPC polishing process. 2. Prior to installing connectors into polishing fixture, remove the sharp glass fiber cleave and the epoxy bead by hand using the maroon film (p/n 95-515-SC). Failure to remove epoxy bead may result in inconsistent polish. 3. Place the appropriate polishing pad, supplied in the LC Polishing Hardware Kit on the polisher platen. | <ul style="list-style-type: none"> 4. Secure the light grey polishing film (p/n 95-503-SC) to rubber pad using a $\frac{1}{2}$-inch piece of double-sided tape placed in the center of the disk. Wet film with distilled water. 5. Lower polisher arm and press green start button. 6. Raise polisher arm and clean ferrule end-faces thoroughly. 7. Repeat steps 4 through 7 using subsequent polishing films (purple, p/n 95-501-DIA, and white/opaque, p/n 95-50002-SD.) |
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Step No.	Film Part Number (Description)	Pressure (lbf)	Speed (rpm)	Time (sec.)	Backup Pad	Film Life
1	95-515-SC (Gray)	N/A	N/A	N/A	N/A	N/A
2	95-503-SC (Light Gray)	4	175	30	Glass	1 use
3	95-501-DIA (Purple)	4	175	50	Grey	3 uses
4	95-50002-SD (Opaque)	6	175	25	Blue	1 use

(Reorder information: 50 pks of each. Gray: p/n 95-515-SC, Light Gray: p/n 95-503-SC, Purple: p/n 95-501-DIA, White/Opaque: p/n 95-50002-SD)



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p/n 006-329 / May 2005