

Installation Test Procedure

CreoScitex VLF Trendsetter ALs
4557, 5067, 5467, 5080 and 5880
Using PCS 1.7/2.0

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Creo Products Inc.
3700 Gilmore Way
Burnaby, BC
Canada V5G 4M1

(604) 451-2700
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CreoScitex VLF Trendsetter ALs

DANGER!
The laser used in the thermal Trendsetter emits a high power invisible beam which can cause damage to eyes or skin if exposed to the radiation. The Trendsetter is designed to be completely safe under normal operation. Under no circumstances should the laser safety interlocks be defeated

1. PRE-TEST INSTRUCTIONS FOR THE CUSTOMER

Before beginning the tests, the customer should have thoroughly read this entire document and fully understand the test objectives and conditions described. In the event that the intent of the entire procedure or any specific test is unclear please consult the Creo representative responsible for conducting the tests.

2. INTRODUCTION

The Installation Test Procedure is offered to the customer as a demonstration that the installation is complete and the Trendsetter is fully operational. Each Trendsetter is rigorously tested before shipment and the tests described here are a subset of the overall testing program. They are instructive to the user and are designed to verify the functionality of the Trendsetter, ensuring the customer that it is performing according to the specifications listed in Creo Trendsetter Equipment Specifications and Configuration Document 75-0050A, 75-0051A, 75-0052A, 75-0053A, or 75-0054A, whichever is applicable.

3. TEST OVERVIEW

The Installation test Procedure generally consumes up to ten plates. If the film option is installed, ten pieces of film will also be used. The test will generally take between 2 – 4 hours, during which time a customer representative should be present to verify the results.

At the completion of the tests the warranty period begins and the Trendsetter is ready for ongoing production work with the full support of the Creo Customer Service Department.

4. CONFIGURATION RECORD

Indicate the configuration of the VLF Trendsetter applicable to the customer installation.

Media: _____	**Plate ____**	**Film ____**	
Orientation:	**Left ____**	**Right ____**	
Cassette Option:	**Single ____**	**Multiple ____**	
Slip-Sheet Handling:	**Yes_____**	**No_____**	
Conveyor Options:	**Straight_____**	**L_____**	**Rotation_____**

NOTE: If the customer has ordered the film option, portions of this test procedure will be performed on both plate and film.

5. PRE-TEST REQUIREMENTS

5.1 Customer's responsibilities

The site must be prepared as described in Creo Site Preparation & Requirements Document #73-3319A.

There must be a sufficient supply of plates (and films if this option is installed). The processor(s) must be installed and operating. The media vendor(s) should be made aware of the full range of environmental conditions that can normally be expected in the installation site. Creo is not responsible for environmental limitations of the media and processors, or to their proper functioning and installation.

5.2 Creo's responsibilities

The VLF Trendsetter AL will be fully installed and pre-test inspected. The media handling, including loading and unloading, will be operational. The VLF Trendsetter AL will be producing properly exposed plates or film with accurate screen calibrations.

6. BASIC OPERATION

6.1 Description

These procedures are designed to verify and demonstrate the following VLF Trendsetter AL features:

- Imaging speed and media throughput.
- Daylight loading.
- Automatic rejection of interrupted plates.

At the completion of this section, the customer should have a greater understanding of these features and should be satisfied that they are working.

NOTE: Most of the thermal media having low sensitivity are not sensitive to daylight.

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7. PROCEDURES

Enter the correct plate size in the Page Setup menu of Allegro. If the customer has ordered the film option, create an additional Page Setup for the film. Using the Page Setup for plate, submit PostScript test files **ATP7a.ps - ATP7e.ps** into the VLF Trendsetter AL queue. While the VLF Trendsetter AL operates on those files, go through the list of procedures 7.1 – 7.3 given below.

7.1 Plate throughput time

Time the entire imaging and non-imaging cycle including unloading, fetching, loading, edge detect (e.g. from end of the first image to the start of the next image). This should be done in parallel with 7.2. – 7.3. . The start and end plot times can be found in the history.

$t_{7a\ start}$ (ATP7a) start of plot = _____,

$t_{7a\ end}$ (ATP7a) end of plot = _____,

$t_{7b\ start}$ (ATP7b) start of plot = _____,

$t_{7b\ end}$ (ATP7b) end of plot = _____,

$t_{7c\ start}$ (ATP7c) start of plot = _____,

$t_{7c\ end}$ (ATP7c) end of plot = _____,

Non imaging time = $[(t_{7b\ start} - t_{7a\ end}) + (t_{7c\ start} - t_{7b\ end})] /2$ = _____,

Imaging time = $[(t_{7a\ end} - t_{7a\ start}) + (t_{7b\ end} - t_{7b\ start}) + (t_{7c\ end} - t_{7c\ start})] /3$= _____,

Successfully demonstrated:_____.

7.2 Visual check of plate loading and unloading

Watch the cycle on the VLF Trendsetter AL as the plates are imaged. Verify specifically the following:

General

- The picker moves quietly into the cassette.
- No plates are dropped during picking.
- Y-axis grabs the plate and brings it against the P-door correctly.

- Table goes up automatically and smoothly.
- Plates are loaded on the drum correctly.
- The table stays in the up position during imaging.
- Plates are unloaded from the drum correctly.
- Y-axis pushes the plate to the center of the table correctly.
- Picker unloads the plate to the conveyor correctly.
- Conveyor speed is adjusted to meet the processor speed.
- Plates are centered as they move into the processor

SCU

- Cassette docks/undocks correctly and easily.
- SCU cover slides back and forth easily, and completely closes.

MCU

- Chariot slides in and out easily, with operation lights giving correct instructions.
- Cassettes move to proper position for picking.

L-Conveyor

- Plates rotate correctly in the right orientation.

SSH

- Slipsheets are grabbed and deposited correctly into bin.

Successfully demonstrated:_____.

7.3 Door Interlocks

While the recorder works on **ATP7d.ps** (about 70% of image done) open one of the operator accessable doors. The VLF Trendsetter AL should abort the file.

Successfully demonstrated:_____

7.4 Semi-Automatic Bypass

Submit **ATP7a.ps** into the VLF Trendsetter AL queue in semi-automatic bypass. The operator will load the plate. Then the device will image, unload, and move the plate into the conveyor without operation intervention.

Successfully demonstrated:_____

7.5 Fully Manual

Turn the autoader and device switches off, and restart only the device. It will now perform as a base VLF Trendsetter and restart PCS/Print Console). Submit **ATP7a.ps** into the VLF Trendsetter queue. The operator will load the plate. Then the device will image, unload, and the operator will unload the plate. The gate should not be locked at any time during this handling.

7.6 Film Throughput time (Complete this section if the film option is installed)

Using the Film Page Setup, submit PostScript test files **ATP7a.ps - ATP7c.ps** into the VLF Trendsetter AL queue in manual bypass. When imaging film, the VLF Trendsetter will pause during the load and unload cycles to allow the operator to adjust the film in the clamps if necessary. If the operator must stop to adjust the film during this test, note the time in the right hand column below. Mark the cycle time as in section 7.1 in the left-hand column below.

t (ATP7a) = _____, Adjustment time=_____
t (ATP7b) = _____, Adjustment time=_____
t (ATP7c) = _____, Adjustment time=_____

Successfully demonstrated:_____.

8. IMAGING PERFORMANCE

8.1 Description

The following procedures are done at one resolution that is specified by customer. (The chosen media must be qualified for this resolution.) They are designed to verify and demonstrate the following:

- Halftone calibration.
- Halftone uniformity.
- Image quality.

8.2 Procedures

Plot the two files appropriate for the chosen resolution. If the customer has ordered the film option, this portion of the test is to be done on both plate and film:

NOTE: When performed on both plate and film, these tests must be acceptable on both medias before obtaining customer signature for each section.

2400 dpi ATP1a_24.ps ATP2a_24.ps.
1600 dpi ATP1a_16.ps ATP2a_16.ps.
1200 dpi ATP1a_12.ps ATP2a_12.ps.

or for Trendsetters with the 3200 dpi imaging option

3200 dpi ATP1a_32.ps ATP2a_32.ps.
1600 dpi ATP1a_16.ps ATP2a_16.ps.

8.2.1 Halftone calibration

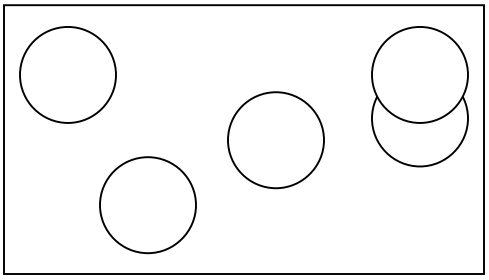
This test can only be done with a densitometer on which the Yule-Nielson factor can be calibrated to measure dot areas on plates and/or with a film densitometer to measure dot area on film. Calibrate the densitometer and measure the percent dot area of the given screens on **ATP1a_xx.ps** and fill in the appropriate table. Verify that the results are within ± 4% of the expected values. Fill in the tables on the next page.

NOTE: Some of the thermal plates have low contrast between the imaged and the non-imaged areas. Consult plate supplier for proper measurement device for such plates. For example, Kodak IR plates should be measured after processing but **before** postbake to get reliable measurements.

Successfully demonstrated:_____.

8.2.2 Halftone uniformity

On those last plates and/or film, compare the dot areas of similar patterns at different locations on the image using the appropriate densitometer. Verify that measurements on the section of the image with the 50% screen made in the five locations shown below are all between 46% and 54%.



Successfully demonstrated:_____.

8.2.3 Image quality

Inspect the vignettes and large halftone areas on the appropriate resolution version of **ATP2a_xx.ps**

Successfully demonstrated:_____.

Halftone Calibration

Halftone	175 LPI				200 LPI			
% screen	0°	15°	45°	75°	0°	15°	45°	75°
30								
40								
50								
60								

2400 dpi	133 LPI				150 LPI			
% screen	0°	15°	45°	75°	0°	15°	45°	75°
30								
40								
50								
60								

1600 dpi	100 LPI				125 LPI			
% screen	0°	15°	45°	75°	0°	15°	45°	75°
30								
40								
50								
60								

1200 dpi Reg. Res option only	63 LPI				85 LPI			
% screen	0°	15°	45°	75°	0°	15°	45°	75°
30								
40								
50								
60								

List of PostScript files

File	Purpose	Description
ATP1a_24.ps	Calibration and resolution.	Four 2400 dpi grids of 0, 2, 4, 6, 8, 10, 15, 20, 30, 40, 50, 60, 70, 80, 85, 90, 92, 94, 96, 98 and 100 % halftones each at line frequency, 133, 150, 175 lpi, at screen angle 0°, 15°, 45°, 75°. One grid for each spot function, Euclidean, EllipticalP, Square1 and Round.
ATP1a_16.ps	Calibration and resolution.	The same as ATP1a_24.ps but at 1600 dpi and 85, 100, 125 lpi screen rulings.
ATP1a_12.ps	Calibration and resolution. **REG RES**	The same as ATP1a_24.ps but at 1200 dpi and 63, 85, 110 lpi screen rulings.
ATP2a_24.ps	Uniformity, artifacts and resolution test.	A 2400 dpi, 175 lpi image with four equal size regions. These are a 100% to 0% vignette, a 0% to 100% vignette, a 75% screen, a 50% screen.
ATP2a_16.ps	Uniformity, artifacts and resolution test.	The same as ATP2.ps but at 1600 dpi and 125 lpi.
ATP2a_12.ps	Uniformity, artifacts and resolution test.	The same as ATP2.ps but at 1200 dpi and 110 lpi.
ATP7x.ps X=a,b,c,d&e	Functional.	Line art, the “golfer” file scaled to the plate size.

9. INITIATION OF TRENDSETTER SPECTRUM WARRANTY PERIOD

The Installation Test Procedure has been successfully completed.

CreoScitex representative:

	Name:	
	Signature:	
	Date:	

Customer representative:

Approved by:	Name:	
	Signature:	
	Date:	