Kodak

Trendsetter VLF

V1.7x to V2.8 Upgrade Questionnaire
Site Questionnaire and Parts Order Form

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725-00022A-B

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Revision History

Revision	Date	Author	Comments
1	13 Jan 2003	Angus Gillon	Based on V to V2.5 Upgrade Questionnaire (72-3579A-C-FO01)
A	22 Aug 2003	Angus Gillon	Added/corrected details to reflect all imaging speeds and types of imaging head.
B	14 May 2007	Al Edge	Updated to reflect EOL for the 20W heads.

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1. BACKGROUND

Any Trendsetter VLF (TS VLF) or Trendsetter VLF Autoloader (AL) with a 192 or 224 channel 1.7x Thermal Head can be upgraded to image at up to 2.8 times the speed of the 20 Watt F-head. The procedure for this upgrade is described in document 725-00023A, *Trendsetter VLF Imaging Speed Upgrade: V1.7x to V2.8 Installation Procedure*..

If planned maintenance has not been performed for a year or more, it should be done before this upgrade.

This questionnaire will assist the Kodak Field Service Engineer and Kodak Order Management to determine the parts needed for a field upgrade of a 40W water-cooled V-speed head (Thermal Head 1.7x) to the faster V2.8 model[1].

The requirements for parts, tools, work effort, and downtime will vary depending upon the serial number of the Trendsetter VLF and the Field Change Orders that have been applied. A site visit is the only way to ensure an accurate assessment of upgrade needs for a particular device*.*

2. ORDERING PARTS FOR IMAGING SPEED UPGRADES

To assess what parts are needed for an imaging speed upgrade:

a) Remove the front center panel and the rear panels (see Figure 2).

b) Power the device 'Off'.

c) Perform the checks in Questions 1-10.

d) Complete the Order Fax Form and send it in to:

Order Management- Trendsetter VLF, Kodak
Fax #: 604.451.2785

A worksheet is also provided to help estimate how long the upgrade will take. Be sure to schedule adequate downtime with the customer.

3. TOOLS NEEDED

- 8 mm hex key
- Large straight-slot screwdriver
- Flashlight
- Static strap

4. QUESTIONNAIRE

Note: This questionnaire is only valid for upgrading devices that already have the 40W, water-cooled V-head (thermal head 1.7x)[1].

Is the device Quantum or non-Quantum (entry-level)?

B001 to B641

All Trendsetter VLF devices from serial number B001 to B641 are Quantum imaging devices. Quantum devices use SQUAREspot thermal imaging, geometric correction and temperature compensation to ensure device-to-device accuracy.

Entry-level (non-Quantum) imaging was introduced in March 2002. It is intended for use in controlled environments with less stringent quality requirements. Entry-level devices have guaranteed registration and image repeatability (like Quantum devices) but they do not have guaranteed device-to-device image accuracy or temperature compensation. They use non-Quantum thermal imaging, including dynamic auto focus.

B642 to B769

From serial number B642 to B769, entry-level devices were built with Quantum hardware. For speed upgrades, these devices will require the same additional hardware as a Quantum device.

B770 to B1097

Starting with serial number B770, the P33 imaging head (32-4180A) is being shipped with all entry-level Trendsetter VLFs. These devices will only require firmware parameter changes to upgrade their speed, but a sales order still must be in place before an upgrade is performed.

B1098 and later

All speed configurations of the Trendsetter VLF will have a 1.7x thermal head. These devices may have a Quantum (P22) head or a non-Quantum (P33) head. Both have 224 beams for S, F, and V speeds. The heads are:

- 32-4180A ASSY,EO,HEAD,TH1.7,2400,224,P33
- 32-4182A ASSY,EO,HEAD,TH1.7,2400,224,P22

These devices only require a firmware parameter to upgrade the speed, but a sales order must be in place before the upgrade is performed.

[1] To upgrade a device that has the 20W air-cooled F or S head (Thermal Head 1.0), use the *Trendsetter VLF – Imaging Speed Upgrade F & S (20W) to V (40W) Site Questionnaire and Parts Order Form (725-00021A)* and the *Trendsetter VLF – Imaging Speed Upgrade F & S (20W) to V (40W) Installation Procedure (725-00024A)*..

To verify the configuration:

- Type `config`. A configuration code in the format **TVxxx** will display. If there is a number directly after the letters "TV" (e.g., TV**2**10), then it is a Quantum device. If there is a letter (e.g., TV**A**10), then it is an Entry Level device. See Figure 1 for a diagram showing what the entire code means.
- If it is an Entry Level device, you need to determine whether it has a P33 head (32-4180A).

  Type `list version`. Look for the message:

  PHC hardware version: 3 (entry level)

What is the current imaging speed?

- Type `config` to show the speed at which the device images. A configuration code in the format **TVxxx** will display, with the last two numbers indicating the imaging speed. See Figure 1 for a list of the numerical codes for imaging speeds.

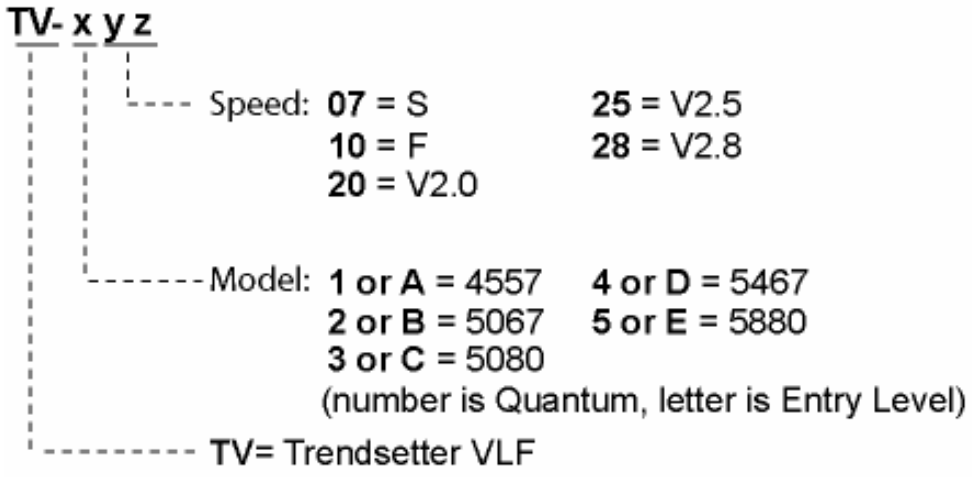


Figure 1: Key to Configuration Codes

What is the Trendsetter serial number?

The serial number is shown on the ID label at the rear of the device, near the counterweight.

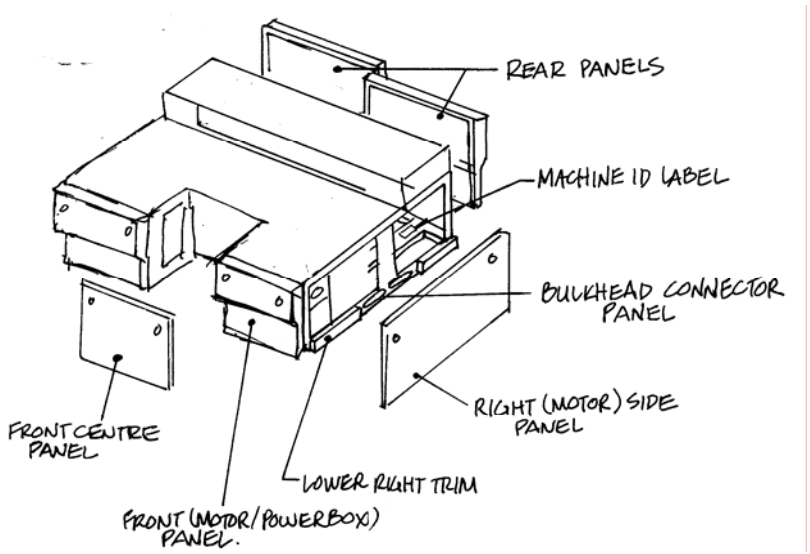


Figure 2: Trendsetter VLF Panels

What is the part number and serial number of the head?

- The head serial number (THxxx) and the head part number (32-xxxxx) are shown on the labels on the head.

What to Order (Quantum devices only): If the head part number is 32-4182A, and it is still running all 224 channels, then a new head is not required. If the head part number is anything else, order part number 32-4182A on the fax form.

Does the device have a debris removal system?

Look for a vacuum nozzle on the thermal head, with a 1.5" diameter hose connecting the head to an external debris removal cabinet near the device.

What to Order: If you do not see a debris removal system, order part #11-0866A (UDRC cabinet), 518-00028A (UDRC to VLF parts kit), and 11-1068B or 11-1069B (UDRC attachment kits) on the fax form.

Does the device have a dehumidifier unit (DHU)?

Look for the DHU box attached to the home side of the head, with a blue drainage hose coming from it.

What to Order: If you do not see a DHU, order kit #05-0244 on the fax form.

Does the device have the power-loss resistive brake?

The power-loss brake slows the drum rapidly if AC power is lost or switched off while the drum is turning. If the brake is already installed, it is located inside the left-hand end of the power box below the drum servo amp beside the ventilation fan. Look for three relays and three power resistors mounted on a 4" by 6" (100mm by 150mm) metal bracket, with a cable and ferrite choke plugged into the top of the servo amp.

What to Order: If you do not see the resistive brake, then order part #11-1013A on the fax form.

Does the device have the new trailing edge clamps?

To avoid any risk of plate slippage, the device must have the updated trailing edge clamps. These clamps are clearly marked with a square green V2.5+ label. In other respects, the old and new clamps look very similar. Devices after B535 should already have the new clamps installed.

What to Order: If the TECs do not have the green V2.5+ label, they must be replaced. Order part #50-2374A on the fax form.

Does the device have 48V power supplies?

Check the part number of the head. If it is 32-4052A, 32-4090A, or 32-4091A, the power supplies have not been upgraded to 48V.

What to Order: If the power supply upgrade has not been done, order kit #10-3981A. The procedure for installing the new power supplies is part of document #77-0062.

Is the MPE firmware version 2.00 or later?

MPE firmware version 2.00 or later is required for the base Trendsetter VLF and the Autoloader.

What to Order: Order Controlled Release version 2.0 or higher. The CD part # and ordering information is available on TechPlanet at:
Trendsetter VLF:
http://techplanet.creo.com/output/computer_to_plate/vlf_trendsetter/nav/crelease20.htm

Trendsetter VLF AL:
http://techplanet.creo.com/output/computer_to_plate/vlf_trendsetter_al/nav/crelease20.htm

5. ESTIMATING TIME REQUIREMENTS

Use your answers to the questionnaire to select tasks in the right-hand table that will need to be completed. Tasks in the left-hand table will always need doing. Add up both tables to estimate the total time required for the imaging speed upgrade.

Hrs.	Work tasks always required
0.25	Backup old firmware and parameters
0.50	Replace thermal head
3.0	Integration and testing
4.0	Contingency for troubleshooting
7.75	+

√ Hrs.	Work tasks sometimes required (Answers from Upgrade Questionnaire)
❑ 2.0	Install debris removal (Question #5)
❑ 1.0	Install DHU (Question #6)
❑ 0.5	Install power-loss resistive brake (Question #7)
❑ 0.5	Replace trailing edge clamps (Question #8)
❑ 3.0	Complete power supply upgrade (Question #9)
❑ 0.75	Install updated firmware (Question #10)
	=

6. ORDER FAX FORM (02-4487B - IMAGING SPEED UPGRADE)

Note: This questionnaire is only valid for upgrading devices that already have the 40W, water-cooled V-head (Thermal Head 1.7x)[1].

Fill in the parts required for this specific Imaging Speed Upgrade, based on your answers to the questionnaire. Order Management will use this information to supply all the kits you need.

Fax both pages to: **Order Management- Trendsetter VLF, Kodak**
Fax #: 604.451.2785

Order Fax Form completed by: _____ Date: _____

Device serial number[2]: _____

Thermal Head serial number[3]: _____ Thermal Head part number: _____

Head Type[4]: Quantum ☐ Entry Level (non-Quantum) ☐

Imaging speed[4]: _____

Device model[2]: 4557 ☐ 5067 ☐ 5080 ☐ 5467 ☐ 5880 ☐

Cycles/frequency at site[2]: _____

Site name: _____

Site location: _____

[2] The device serial number, model number, and electrical frequency are on the Device ID label (see Figure 2 for location of label).

[3] The label containing the head serial number is attached to the head.

[4] The type of head (Quantum, E) and imaging speed are under the `config` parameter. See Question 1 on page 2.

DESCRIPTION	NEEDED FOR THIS UPGRADE?		IF YES, KITS/PARTS REQUIRED
	yes	no	
Thermal Imaging Head			32-4182A
UDRC Cabinet			11-0866A
UDRC to VLF Parts Kit			518-00028A
UDRC Attachment Kit			North America, South America, Japan 11-1068B
			Europe, Australia, SE Asia 11-1069B
DHU Kit			05-0244
Power Loss Resistive Brake			11-1013A
Trailing Edge Clamps – B01 to B535			50-2374A (10pcs)
Power Supplies			10-3981A