Service Manual

PlateWriter™ 2000

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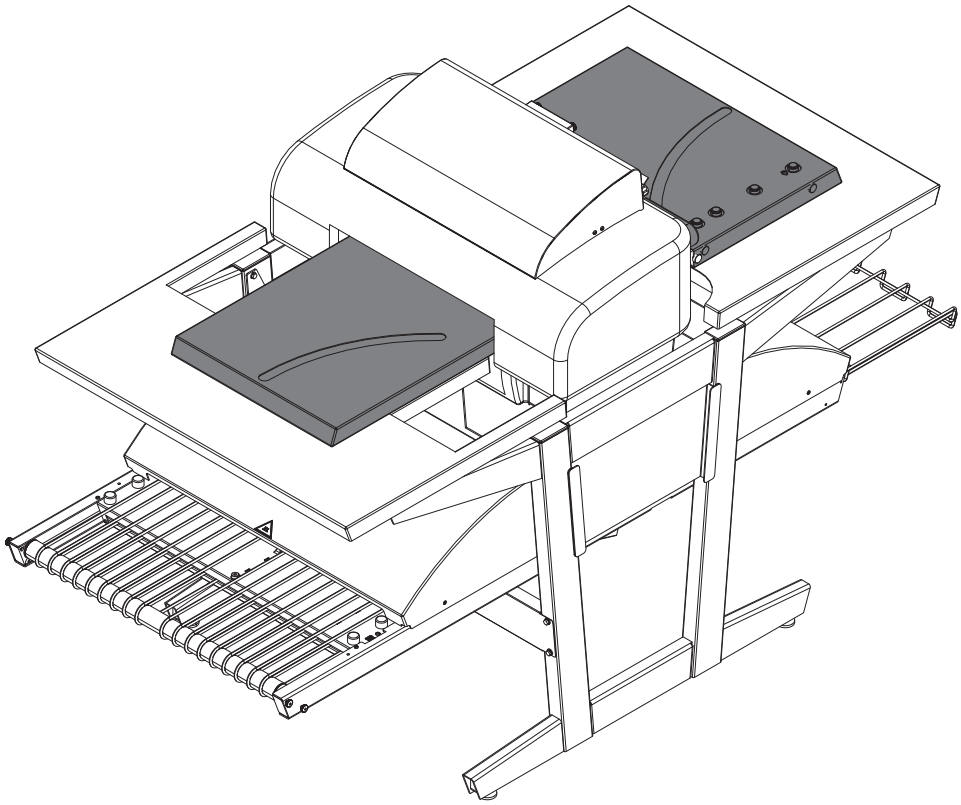
PlateWriter™ 2000



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Part 1: Introduction

About this manual

Intended use of this manual

- This manual describes how to install software and firmware to the PlateWriter 2000 system. The procedures described in this manual require a reasonable level of technical skill and access to the proper tools.

Reservations

- This manual was written and illustrated using the best possible information available at the time of publication.
- Any differences between this manual and the equipment reflect improvements introduced after the publication of the manual.
- Changes, technical inaccuracies and typographical errors will be corrected in subsequent editions.
- As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

Important

Unintended use of the equipment

Glunz & Jensen A/S do not take any responsibility for any damage or accidents caused by unintended use of the equipment:

- As the equipment is certified by accredited test laboratory (UL International Demko A/S) it is absolutely prohibited to make any modifications, electrical nor mechanical, of the equipment. If however this prohibition is disregarded, Glunz & Jensen's warranty will no longer apply and the certification labels for UL, C-UL, and CE certification of the equipment shall be removed as the certification will no longer apply to the equipment.

Installation

- Never install the equipment in explosive environments.
- It is the responsibility of the owner and operator/s of the equipment, that the installation is made in accordance with local regulations, and by engineers authorized to carry out electrical installations.
- Installation must be performed only by service technicians who are trained in installing the equipment.
- The manufacturer cannot be held responsible for any damage caused by incorrect installation of this equipment.

Notes, cautions, and warnings !

Throughout the manual notes, cautions, and warnings are written in bold like the example below:

Always replace a fuse with one of the same size and rating as the old one.

Symbol	Meaning	Explanation
	Note	The operator should observe and/or act according to the information in the order to obtain the best possible function of the equipment
	Caution	The operator should observe and/or act according to the information in the order to avoid any mechanical or electrical damage to the equipment.
	Warning	The operator should observe and/or act according to the information in the order to any personal injury.

Chemicals

- It is responsibility of the owner of this equipment that data is available to concerning possible health risk from the chemicals used with the equipment.

"End of lifetime" disposal

- The equipment is designed for easy disassembling. All disposal of parts from the machine must be made according to local regulations. For recycling purposes significant components are marked with material specification according to the ISO 11469 standard.

Service assistance

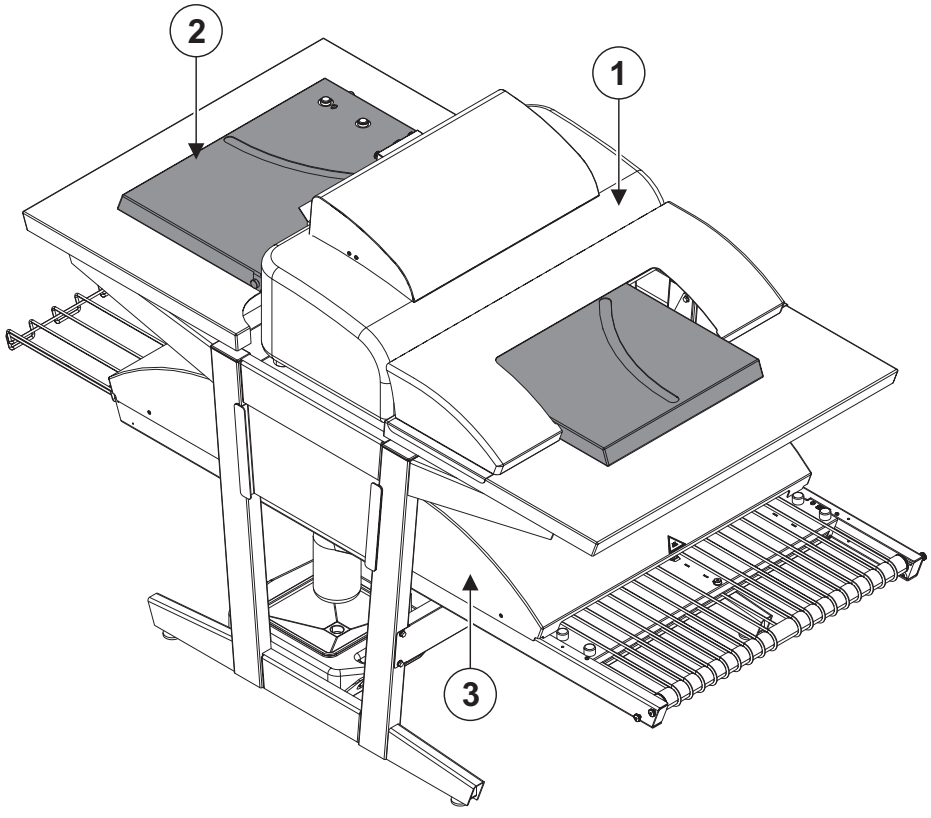
- If help is needed to correct any problem with the equipment, please contact your local supplier.

The Functional description of the PlateWriter system

The system is an innovative and patented inkjet Computer-to-Plate (iCtP) device.

The System consists of:

- **Plate Writer engine (1)**
  A specially modified Epson inkjet printer that uses 's fluid to image the i-plates printing plates.
- **Plate input table (2)**
  A table for aligning plates prior to entering into the engine.
- **Proofer** (option)
  An unmodified Epson Stylus Color 4800, 4880 or 7800, 7880 printer used for proofing. Plug-ins to drive these printers are supplied with the Harlequin RIP.
- **Harlequin RIP platform**
  A customized workstation accessible by both Mac and PC computers, loaded with the Global Graphics Harlequin RIP.
  The Harlequin RIP provided is customized by Xitron and it accepts PostScript, PDF, EPS, TIF & JPEG files produced by standard pre-press applications.
  It RIPs the data and sends output to the engine or to the Proofer.
- **Plate Writer finishing unit (3)**
  An integrated plate finisher that executes all of the steps necessary to produce press-ready plates, e. g.: curing, gumming and drying of the plates after they are imged in the engine.



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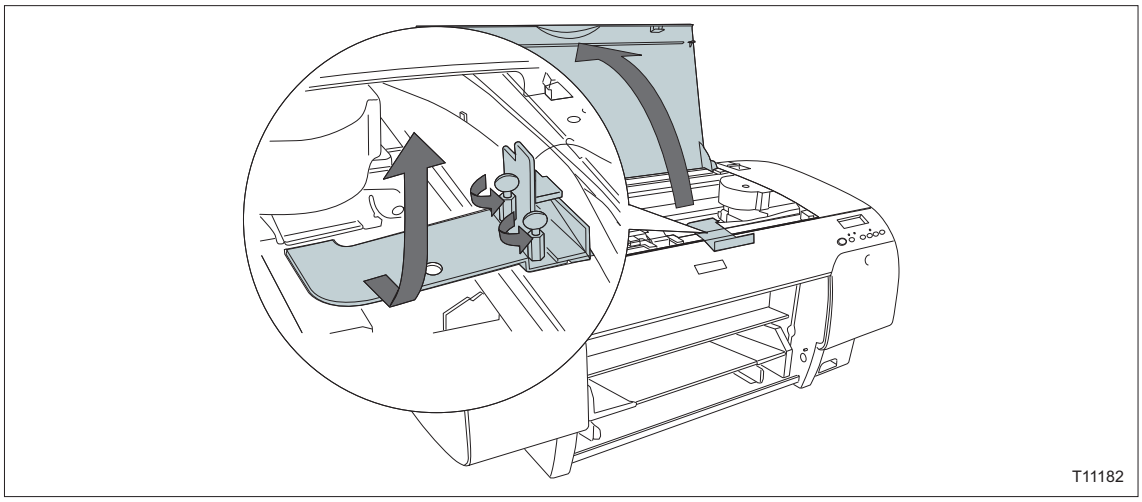
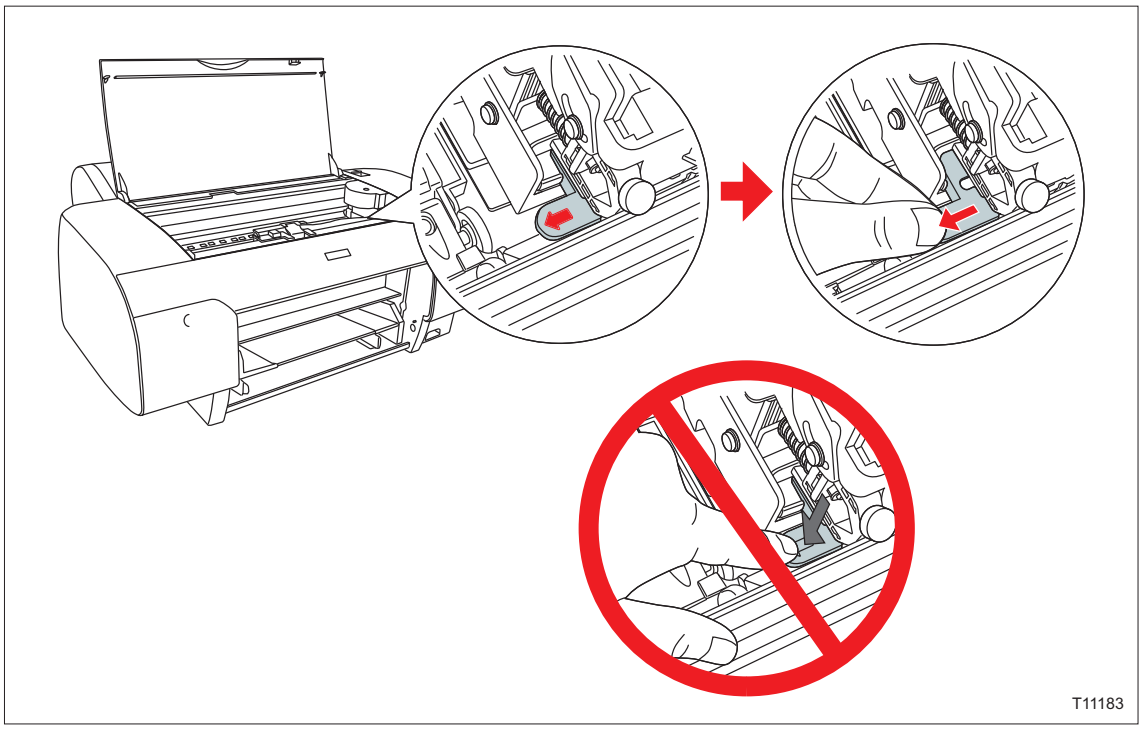
Part 2: The Printer

Initial startup of PlateWriter 2000

- Remove all the packing materials and tape. Check carefully for all the tape inside and outside the printer.



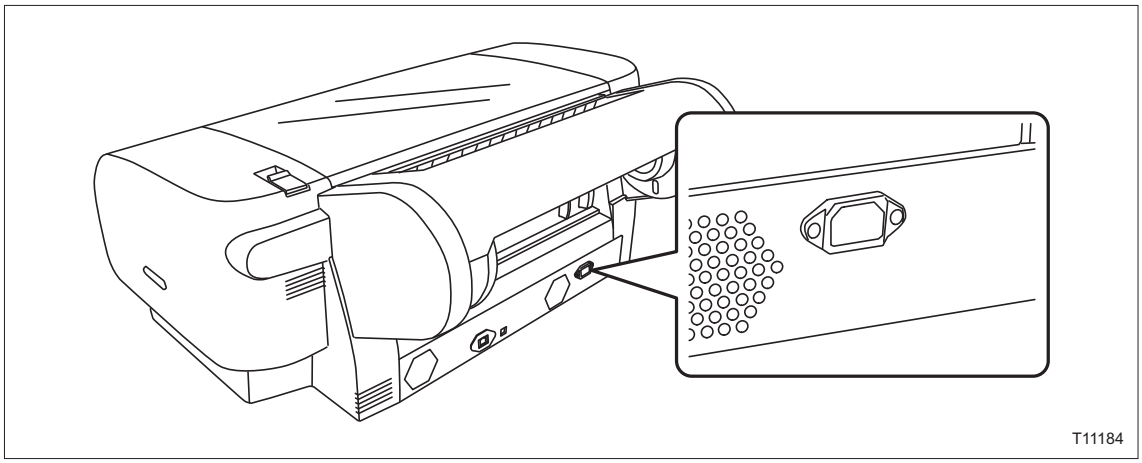
- Remove the two screws and the carriage retainer bracket.
- Unlock the print head carriage by pulling the green tab on the left. Do not remove the tab.



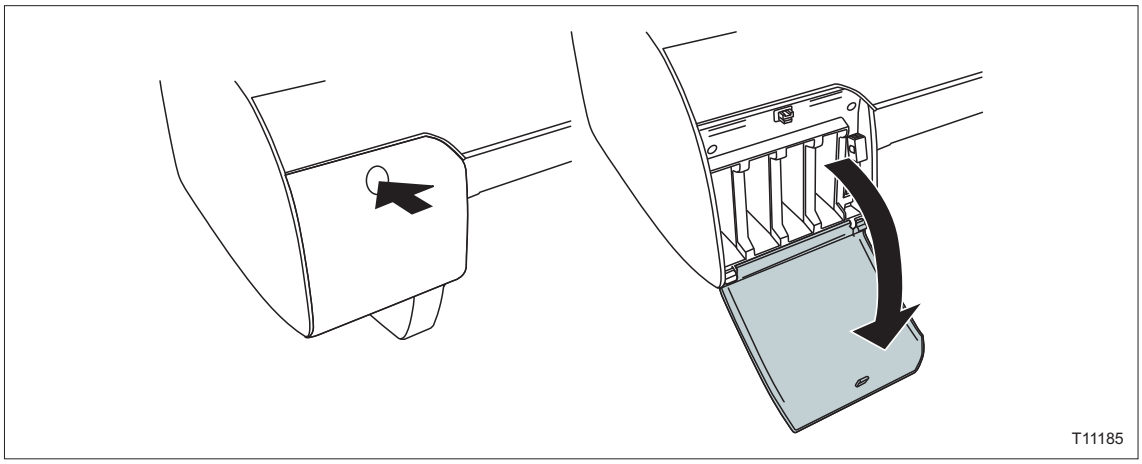
Do not press down the green tab or it may break.

Turning on the printer & setup

- Connect the power cord to the AC inlet on the back of the printer. Do not connect the printer cable yet.

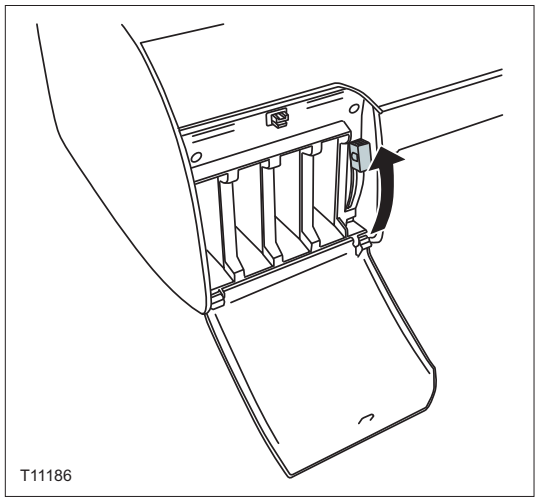


- Plug the other end of the power cord into a properly grounded electrical outlet.



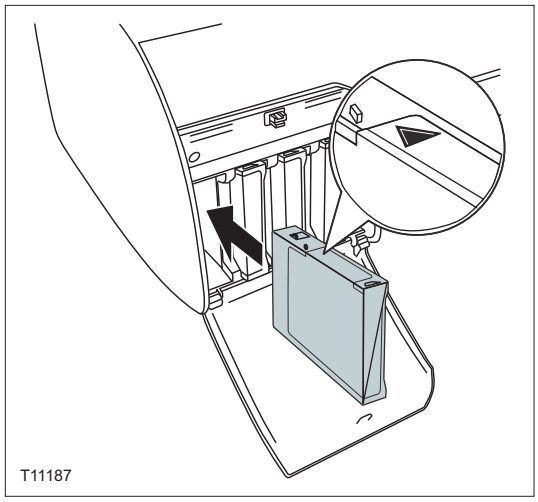
Installing ink cartridges

- Press the ⏻ power button to turn on the printer.
- Press both ink compartment covers to open them.
- Raise both ink levers.
- Remove each fluid cartridge from its package and gently shake.



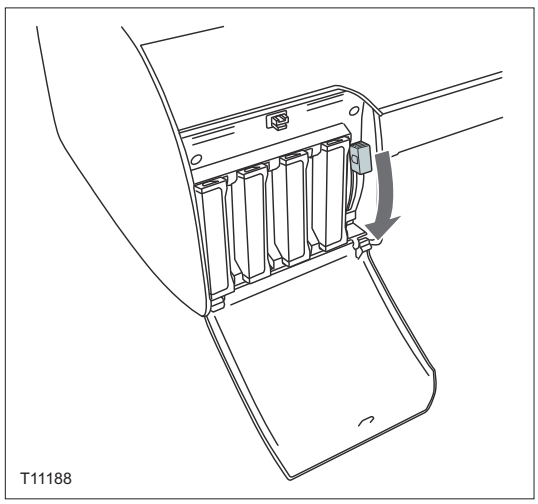
The first time you install fluid cartridges, the printer uses some fluid to charge the printing system, so print yields may be lower with the first cartridges. Subsequent fluid cartridges will last their full rated life.

- Install the cleaning fluid cartridges in the printer. Hold each cartridge with the arrow pointing towards the printer, then insert it into its slot. Make sure that you insert each cartridge in the correct slot.
- After installing all 8 cartridges, lower the ink levers. The printer begins charging the fluid delivery system and the ⏸ pause light flashes. When the display shows 20%, raise the levers and replace the cleaning cassette with Liquid Dot in channels 1 & 2. Lower the lever again.



Charging takes about 8 minutes. Never turn off the printer, open the cover, remove the rear cover, release the paper lever, or remove the ink cartridges or maintenance tank while the ⏸ pause light is flashing, or you may damage the printer.

- When **READY** appears on the LCD display, charging is complete. Close the ink compartment covers.

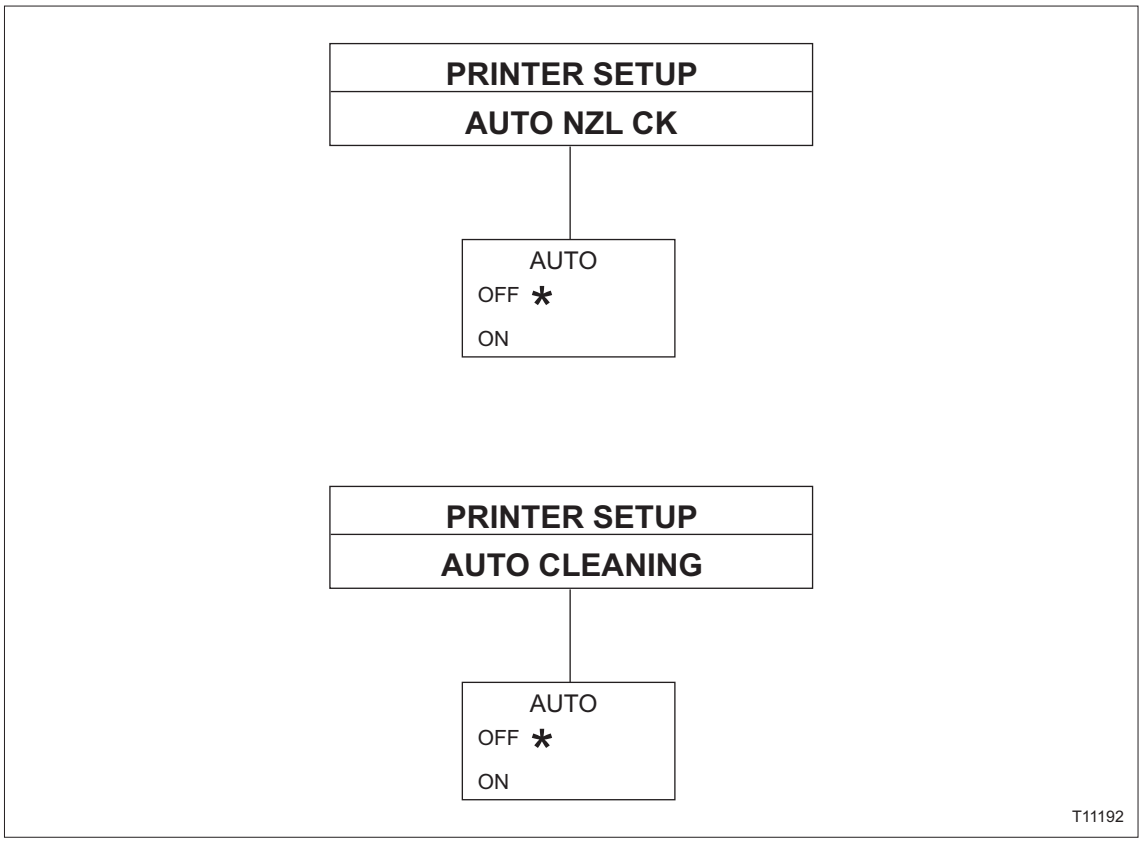


Always turn off the printer using the ⏻ power button. Then wait until the LCD display turns off. This ensures that the print head is safely capped.

Printer setup

IMPORTANT! The function with auto nozzle check and auto cleaning is not used with the PlateWriter system, since there are no visible fluids in 6 of the 8 channels, and the printer will assume that the nozzles are missing. The printer will continue to perform cleaning and try to recover the missing nozzles in the 6 channels with maintenance fluid.

To avoid annoying interruptions in processing, you should set auto nozzle check and auto cleaning functions to "off".



Auto nozzle check

When you select ON, the printer performs a nozzle check before printing, for each print job.
The printer must be set to OFF.

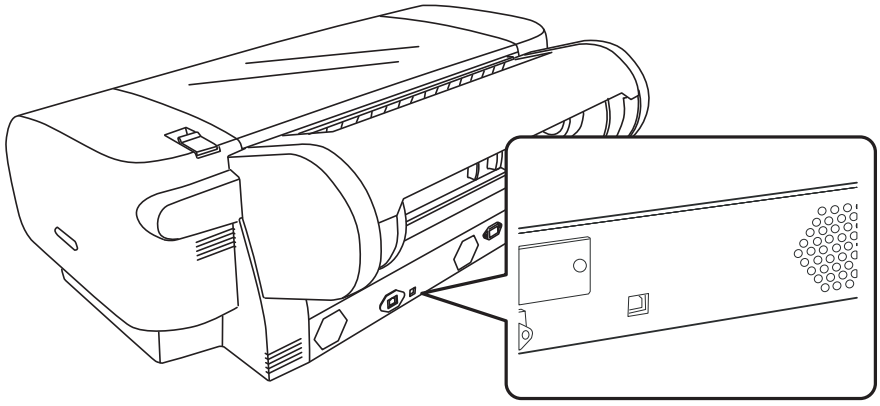
Auto cleaning

When you select ON and perform a nozzle check from the printer driver or the control panel, the printer not only checks for clogged nozzles, but also performs head cleaning automatically.
The printer must be set to OFF.

Installing the Epson 4880 printer

The procedure described below presumes that the RIP Workstation has been properly installed and it is started up and ready.

- Connect the USB cable from the RIP Workstation to the USB plug on the rear side of the PlateWriter (see picture below) and make sure that the unit is switched on.



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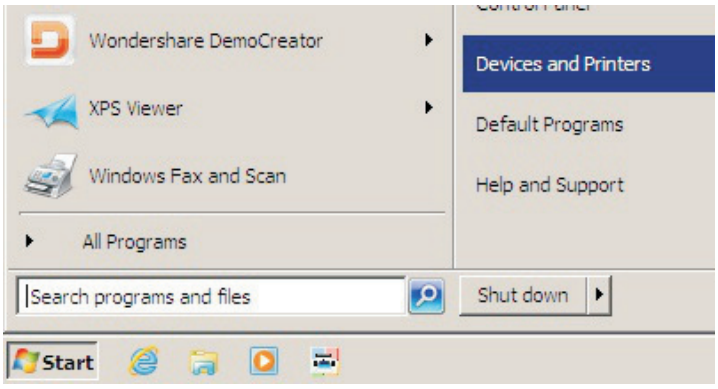
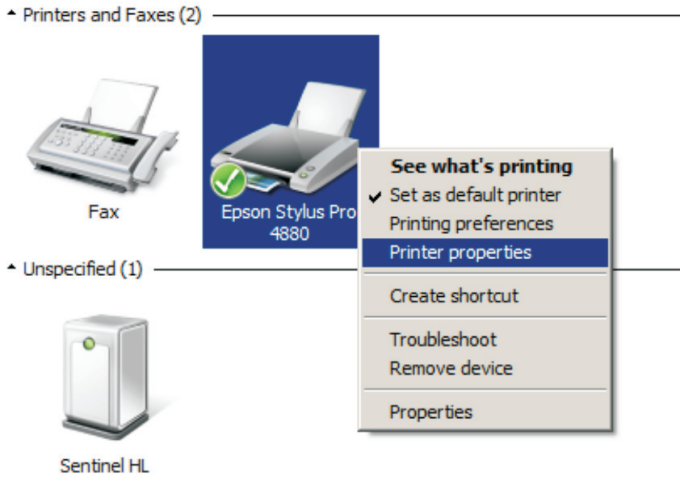
Renaming the Epson printer to PW2000

For the RIP to see the PlateWriter, it is needed to rename the previously installed Epson Stylus Pro 4880 printer driver to **PW2000**:

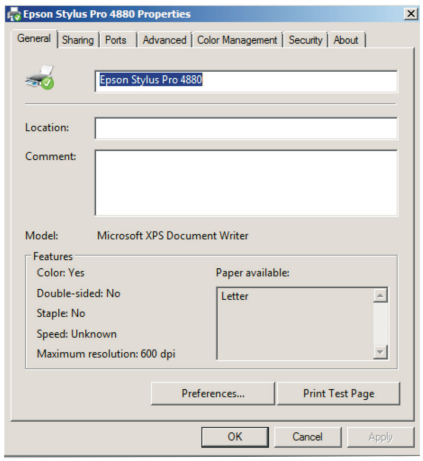
- Select the Windows **Start** button in the bottom left corner of the screen, then select **Devices** and **Printers**.



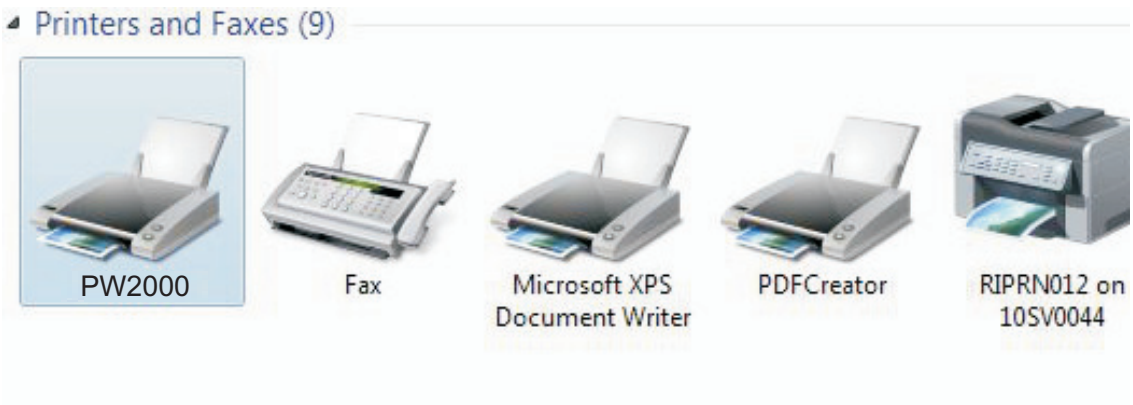
- The **Devices and Printers window will appear.**
  Right click on the Epson Stylus Pro 4880 printer, and from the appearing menu select **Printer properties.**



- The Epson Stylus 4880 Properties window will appear.



- The printer name becomes selected, now rename the Epson Stylus Pro printer to **PW2000 and press Ok**.
- The printer name is changed.



Launching the RIP for the first time

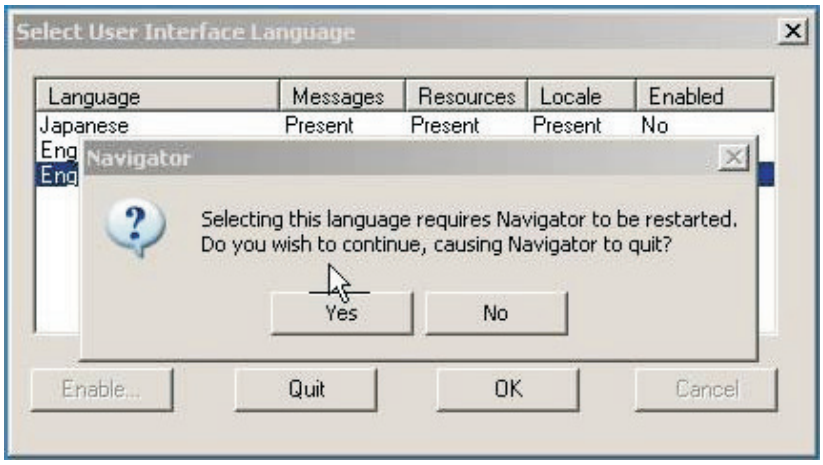
First plug in the **dongle**.

If you do not plug in the dongle, the RIP will fail to launch with a "Super Pro, C Plus Activator dongle not plugged in or invalid" error.

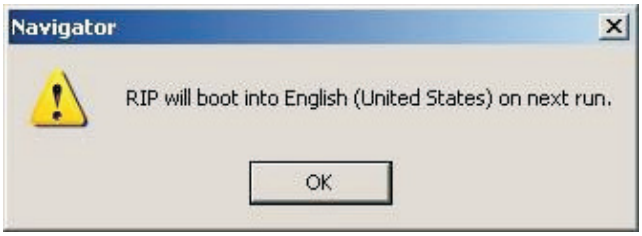
- Locate the **Navigator** icon which was placed on your desktop by the installer.

- Double-click it to launch the RIP.
- When launching the RIP for the very first time, it will ask to select **User Interface Language.**
- Select **English (United States)**. This is the keyboard map for the keyboard supplied with RIP workstation.
- When selected the **User Interface Language**, the RIP will advise that it will need to restart.

If the German user interface is installed, it can be enabled here. Choose German, click Enable, type the password and click OK.



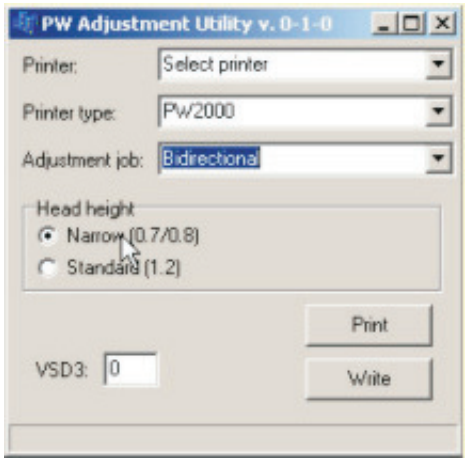
- The RIP will advise that it will boot into chosen language next time.



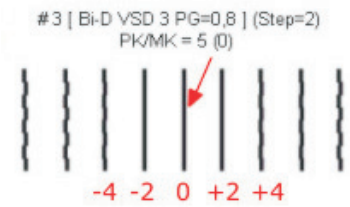
- Click **OK** to continue and then restart the RIP.
- Next step is start to using the RIP (see Part 4).

Bi-directional adjustment on PlateWriter 2000

- Start the Program “PWAdjUtil” from the folder C:\GJ tools\PWAjUtil on the RIP workstation.
- Select the printer connected.
- Select printer type and set Adjustment job to Bidirectional and click on Narrow (*).



- Load a 0,15 mm or 0,2 mm (*) plate in the iCtP printer and click Print. The following image (shown in black) will appear on the plate:



The Figure PK/MK, 5 in the above show case, indicates the actual setting and represents the line in the center. If the best line is not in the center position you must find the best and enter the best value in the VSD 3 of the utility and click “Write”. The correct figure is found by counting the lines from the center line and to the best line. Notice that the distance between the lines is in steps of 2. You might find that two lines that are equally good and you then set the value between the two lines e.g. if lines +2 and +4 are good you set the new value to 5 + 3 = 8.

After setting the new value it is recommended to run the adjustment again to ensure that the setting is correct.

(*) If the 0,2 mm reaches the head surface you must readjust the head height so that the adjustment can be done on **Narrow** head height.

Adjusting the printer feed

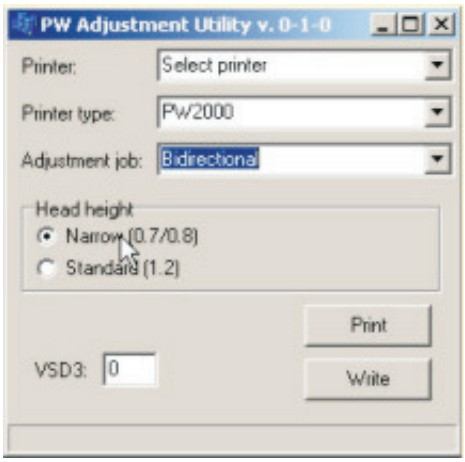
Background

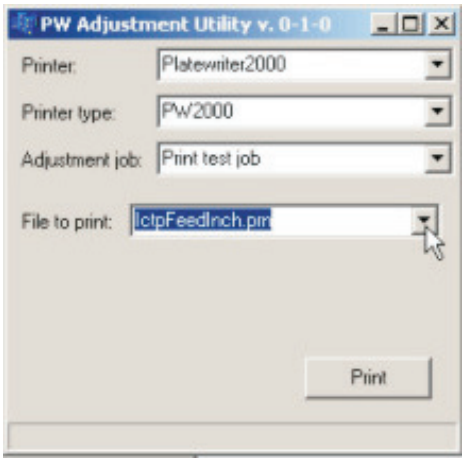
In continuance to increase the print quality we often get questions on graininess. The number one adjustment that reduces grainy looking tints is the printer feed adjustment. The printer already has a feed adjustment built in but since the correction depends on the plate thickness the correction value must be set in the page setup. This makes it possible to ensure perfect feed for all plate gauges used.

Tools

- Start the Program “PWAdjUtil” from the folder C:\GJ tools\PWAjUtil on the RIP workstation.
- An accurate ruler for measuring the feed.

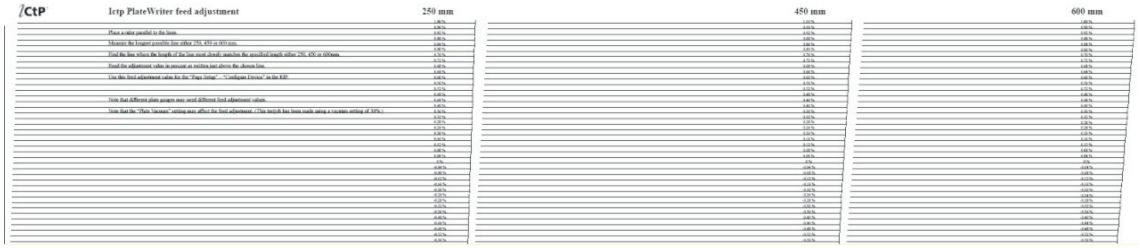
- Start the PW Adjustment Utility, select the printer and type in question and print the file as shown below:



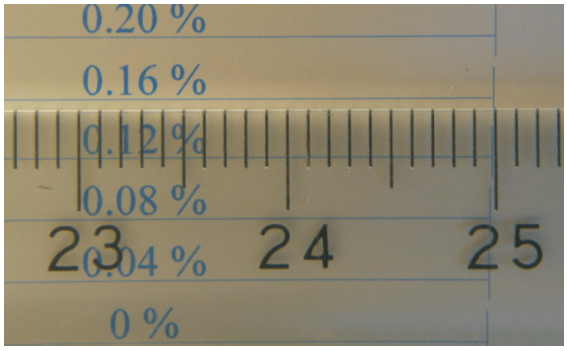


Notice that you must select a suitable file (inch or metric) depending on the ruler you have.

Load a plate in portrait on the PlateWriter, press **Print** in the utility. After the job has been printed place a ruler on the best line of fit.

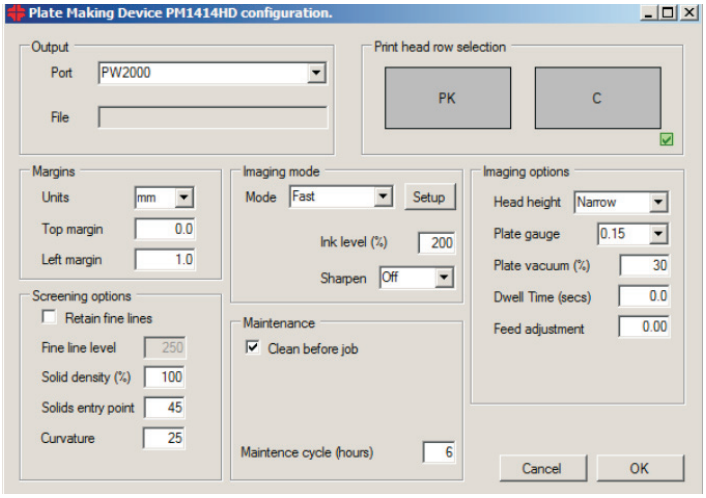


Measure the longest possible line 250, 450 or 600 mm and find the deviation factor as shown.



In this case the feeds needs to be adjusted +0,16% measured at the 25 cm point.

Open the page set-up(s) with plate gauge identical to the one performed for the above test and key in the new value in the **Feed adjustment** in the "Configure Device."



The feed on different plate thicknesses might be different so if other plate thicknesses are used you must run the same test again using the corresponding plate. If the value turns out to be different you can key in the value in the relevant page set-ups.

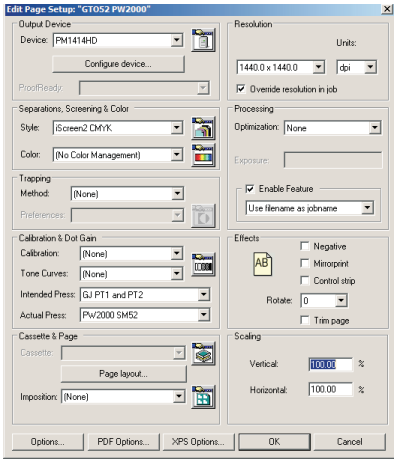
We recommend that the feed is checked and if needed modified at least once a year e.g. during the yearly maintenance performed by the service staff.

Adjusting the side registration system

Adjustment in this instruction as example is done with the plate 400x511 GTO 52 size.

Procedure

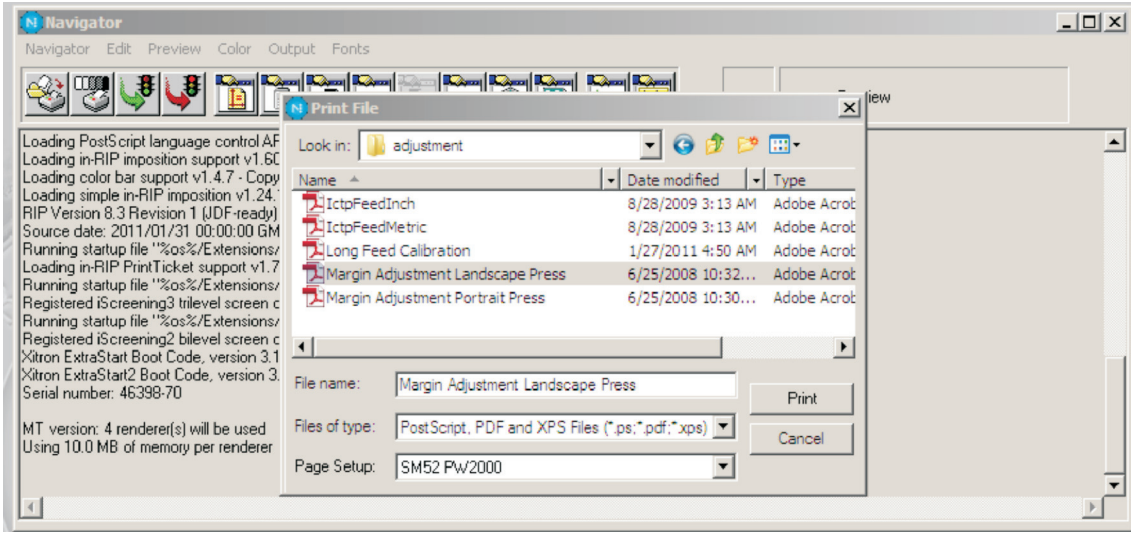
- Go to 'Navigator' -> 'Page Setup Manager' -> select the plate and click'Edit ' -> and set 'Rotate' to 0 and click 'Ok'.



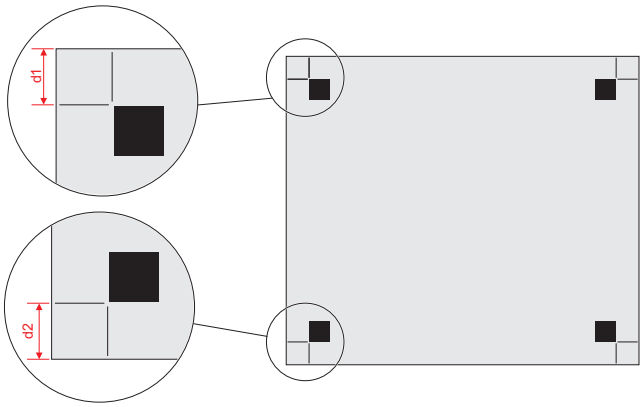
- Load the 0.15 mm or 0.20 mm plate.

Is necessary to set the correct files of type and page setup.

- Start the 'Navigator' -> 'Print file' -> 'Sample files' -> 'Adjustment' -> 'Margin Adjustment Landscape Press' , select the 'Page Setup' and click 'Print' (see picture below) and the Output Controller will pop up.



- When the test plate is printed, measure the distance d1 (left upper margin) and d2 (right lower margin) from the edge of the plate to the marks printed on the plate as show on the picture below (tolerance is ± 0.2 mm).



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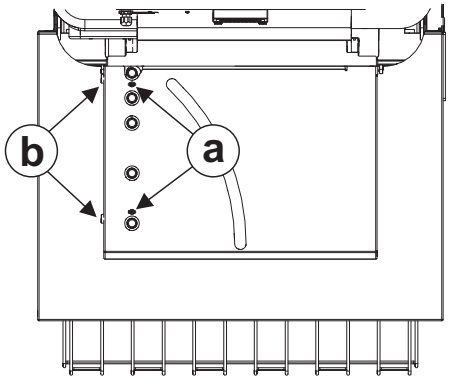
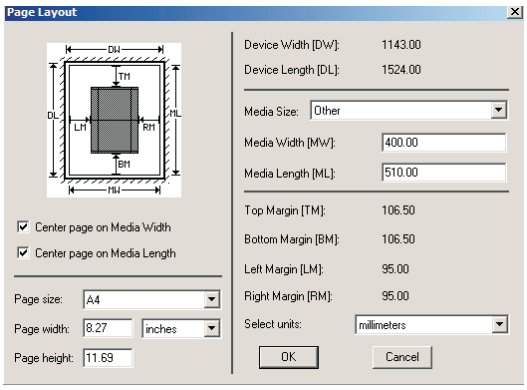
If the d1 and d2 are out of tolerance, then adjustment of the feed table is needed...

- Use the allan wrench key to loosen the table **(a)** and turn the adjusting screw **(b)** for fine tuning (see illustration below).

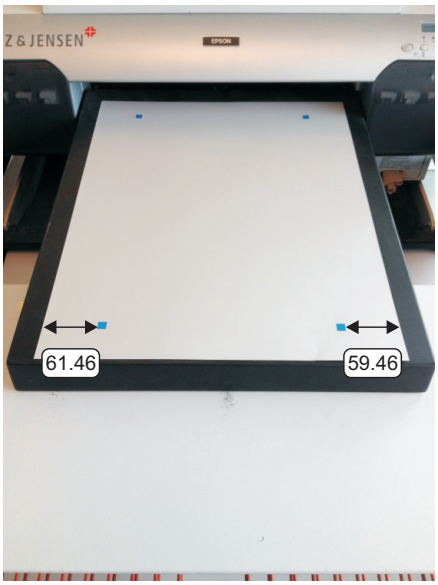


If the printer error "reload paper" appears, follow the next step Centering of the image on the plate...

- Start the 'Navigator' -> 'Page set up manager' -> 'Edit GTO52' -> 'Page layout' -> add a check mark in 'Center page on Media Width' and 'Center page on Media Lenght' click 'Ok' (see picture below).



- Start the 'Navigator' -> 'Print file' -> 'Sample files' -> 'Adjustment' -> 'Margin Adjustment Landscape Press' and check if the margins are centered on the plate.
- Measure the Left margin and Top margin (see iluustration below).

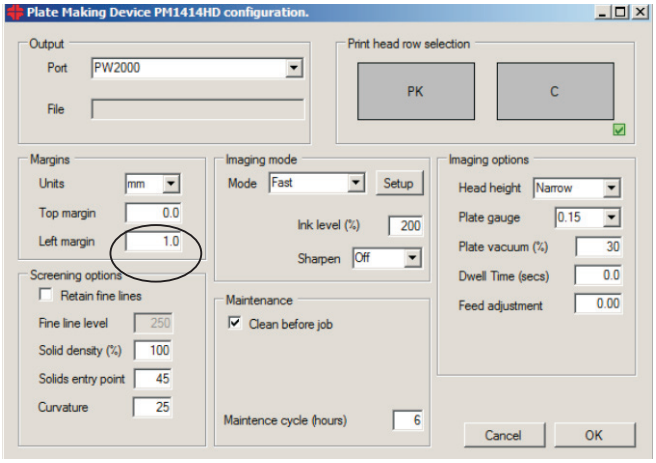


Example

Left margin **(a)** is 59.46 mm and right margin **(b)** is 61,46 mm.

Left margin adjustment = $\frac{\mathbf{a+b}}{\mathbf{2}}$ **- a**

Left margin adjustment = $\frac{59.46+61.46}{2}$ - 59.46 = 1



Part 3: The Finisher

General

The Finisher is designed to cure and dry the Liquid Dot (LD) that is jetted onto the iPlate by the imagine unit. It also applies iFinisher to cover and protect the iPlate. The heating of the plate together with iFinisher application will ensure a clean background of the iPlate when set on press.

When the iPlate is placed over the optic sensor in the front belts the belts will start to move the plates into the oven. When the oven sensor is activated by the iPlate the speed of the belt and temperature of the oven is regulated to get the correct temperature on the plate.

The iFinisher pump will start recycling so that iFinisher is applied to the rubber rollers via the PUR application roller.
The Finisher is also controlling the ink dryer inside/on top of the imaging unit. Plate registration is also controlled from the Finisher if applicable.

Connection the FU to the RIP PC

Windows XP:

The electronics controlling the Finisher can be accessed, tested and setup by the use of the Windows HyperTerminal. Connect the USB cable from the bottom of the unit to the RIP computer. Run the HyperTerminal which can be located under the Windows.
Start under: All Programs>Accessories>Communications>HyperTerminal
See the SW upgrade for HyperTerminal settings.

Windows 7:

Run the PTTY SW and select appropriate comport.

Parameters setting

Default parameters setting for PlateWriter 2000

The defaukt settings are NOT recommended settings, but the default values when Finisher Unit Firmware is installed.
See the recommended values for PlateWriter 2000 on page 3-4.

Parameter	Description	Min.	Max.	Default	Unit	Explanation
DAO	**D**rier **A**lways **O**n	0	1	0	bool	Activate ink drier permanent.
DFS	**D**rier **F**low **S**etting	20	100	80	%	Duty cycle for the ink drier fan or fan next to the print head.
DHS	**D**rier **H**eat **S**et point	15	50	28	°C	Temperature for ink drier. If IDS=2 this controls the printer plane temperature.
DHB	**D**rier **H**eat **B**eta	-200	200	0	0.1°C	Calibration offset for ink drier temperature sensor (printer plane if IDS=2).
1AL	P**1 AL**pha	-500	500	-38		Alpha value for heat regulation.
1BE	P**1 BE**ta	-500	500	100		Beta value for heat regulation.
1SE	P**1 S**ide **E**ffect	50	150	100	%	Compensation of effect for the two side bulbs.
1FF	P**1 F**ront **F**actor	0	200	100	%	Compensation of curing effect for front edge of plate.
1RF	P**1 R**ear **F**actor	0	200	100	%	Compensation of curing effect for rear edge of plate.
1GR	P**1 G**um **R**eplenish	0	100	17	‰	Gum replenish amount in permille of process time.
2AL	P**2 AL**pha	-500	500	-31		Alpha value for heat regulation.
2BE	P**2 BE**ta	-500	500	95		Beta value for heat regulation.
2SE	P**2 S**ide **E**ffect	50	150	100	%	Compensation of effect for the two side bulbs.
2FF	P**2 F**ront **F**actor	0	200	100	%	Compensation of curing effect for front edge of plate.
2RF	P**2 R**ear **F**actor	0	200	130	%	Compensation of curing effect for rear edge of plate.
3GR	P**3 G**um **R**eplenish	0	100	19	‰	Gum replenish amount in permille of process time.
GRI	Gum **R**eplenish m**I**nimum	0	120	5	sec.	Minimum amount of replenish before released.
GRA	**G**um **R**eplenish m**A**ximum	0	300	30	sec.	Maximum amount of replenish before replenish is given between plates during process.
GRD	**G**um **R**eplenish **D**istance	100	1000	250	mm	Minimum distance between plates before replenish is given.

Parameter	Description	Min.	Max.	Default	Unit	Explanation
FRS	**F**ront edge **R**egulation **S**tart	0	240	80	mm	
RRS	**R**ear edge **R**egulation **S**tart	0	240	0	mm	
RRE	**R**ear edge **R**egulation **E**nd	0	240	200	mm	
GAP	**GAP** length edge regulation	0	240	200	mm	
CUR	**CUR**rent reference heat regulation	0	15000	8500	mA	
STT	**S**tar**T** **T**emperature heat regulation	0	250	60	°C	Oven temperature setting when FU is idle and printer is printing. Min. temperature before plate is processed.
TSP	**T**ransport **SP**eed	5	50	15	cm/ min	Transport speed in process P1-P3.
BEE	**BEE**p	0	0xFF	1		Sound alert when: 0: Off. 1: When plate is ready in printer. 2: When FU is ready. 3: Both.
AUT	**AUT**o	0	1	0	bool	
IRS	**I**nfra **R**ed **S**ensor sensitivity adjustment	0	5000	50	my sec	
RGS	**R**e**G**istration **S**ystem	0	3	0		0: No registration system. 1: Side register only. 2: Front register only. 3: Front and side registers.
REG	**REG**istration system timer	0	99	30	1/10 sec	Delays when registration pins are moved down after the printer feed rollers are down.
IDS	**I**nk **D**rier **S**ystem	1	2	1		1: Original ink drier with air fan and heater (PW2000/PW2400). 2: Heat in print plane and input table.
THS	**T**able **H**eat **S**et point	15	55	28	°C	Temperature setting for input table (Only used for IDS=2).
DFT	**D**rier **F**an **T**ime	0	21600	15	sec	Time ink drier fan is active after last printing has been detected (print head moving).
DHT	**D**rier **H**eat **T**ime	0	21600	10	sec	Time heat in ink drier.
DST	**D**rier heat **S**tandby **T**ime	0	21600	0	sec	Time heat in ink drier.

Para-meter	Description	Min.	Max.	Default	Unit	Explanation
TSS	**T**able **S**tandby temperature **S**et point	15	50	28	°C	Standby temperature for input table (Only used if IDS=2).
DSS	**D**rier **S**tandby temperature **S**et point	15	50	15	°C	Standby for printer plane (Only used if IDS=2).
PDT	**P**ins **D**own **T**imer	10	3600	300	sec	Time before front register pins are moved down. This is to minimize the risk that the finishing unit is powered off with the pins in up position. To reactivate register pins activate the printer feed rollers once again.

Recommended parameters setting for PlateWriter 2000

- When the backup of parameters to restore is not available, then following changes to the default settings must be made after installation of the new software.
- Type DEF to get default values.

Then set the following parameters in order as shown:

- Ink Drier System

IDS=1 Ink drier with air fan and heater for PW 2000.

- Register System

RGS=0 No registration system.

- Print Head Protection

PHP=0 No print head protection or disabled.

The following parameter settings depends on Ink Drier System (IDS):

Parameter	PW2000
IDS	1
DFT	20
DHT	10
RGS	0

- Type SAV (SAVe parameters) in the USB-Hyper Terminal Window, press the Enter button after the change of the last parameter to save the changes.

Commands

The following commands are used for diagnostics of the Finisher.

DEF	**DEF**ault parameters	Set all parameters to their default values.
DIC	**DI**agnostic **C**urren	Test current sensor on oven in finishing unit.
DII	**DI**agnostic **I**nput	Test system inputs.
DIO	**DI**agnostic **O**utput	Test system outputs.
LPA	**L**ist **PA**rameters	List all parameters and software version information.
SAV	**SAV**e parameters	Save all parameters to flash.

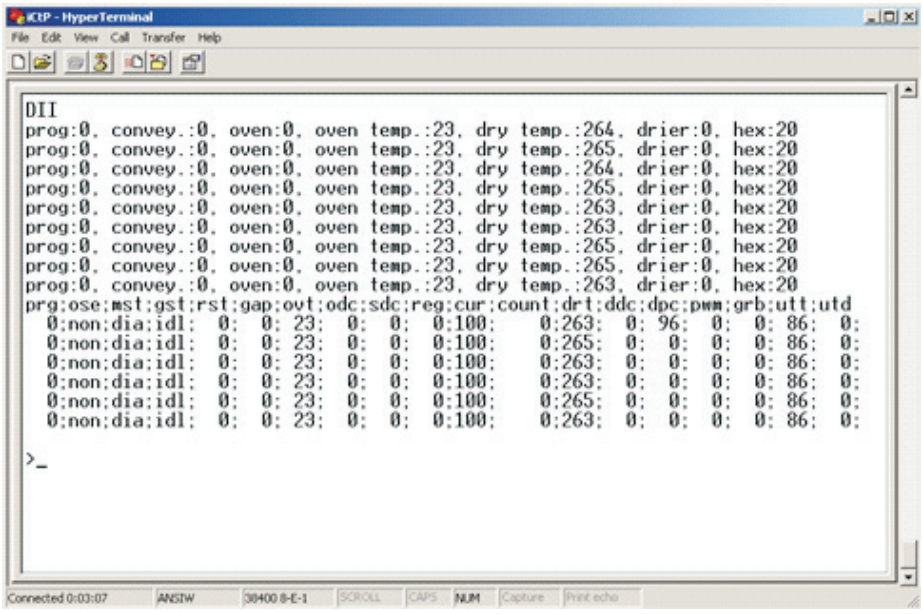
To run any of the above commands the Finisher must be in program "0" on the toggle switch/program selector. Wait until the screen show the prompt ">" and then type the three characters needed.

If you type an error you cannot erase and retype. Simply press the Enter key on the keyboard and the FU will reply with a "?" and a new ">". Then try again.

Diagnostic Input

- Type DII and press Enter.

The screen will start to show the state of the input sensors:



Input sensors:

prog: toggle switch with program selected.
convey.: optic sensor that detect the plate in the infeed of the FU.
oven: mechanic switch that is placed at the very entry of the oven.
oven temp.: shows the temperature of the plate curing oven.
dry temp.: shows the ink drier temperature in 0,1 °C (26,4 °C).
hex: N/A

prg: Program selection.
ose: Oven State and Error, controlling the green and red LED.
- **non:** Off (as in diagnostic).
- **rdy:** Ready.
- **pcs:** Process.
- **pdp:** Plate during process.
- **pll:** Plate is too short or too long.
- **nrd:** Not ready as in idle.
- **por:** Program selection is out of range.
- **blb:** Bulb error.
- **mot:** Motor error.

mst: Main State.
- **idl:** Idle.
- **pcs:** Process (P1-3).
- **rin:** Gum/rinse (P4).
- **dia:** Diagnostic (P0).
- **err:** Error.

gst: Gum State, only valid when Main State is pcs.
- **wfr:** Wait for front of plate to reach gum section.
- **wrr:** Wait for rear edge to exit rollers.
- **wrg:** Gumming, wait for plate exit gum.
- **end:** Plate has left unit.

rst: State of registration system.
- **0:** Start
- **1:** On its way towards home position.
- **2:** Waiting to be activated by lift up feed rollers.
- **3:** On its way towards upper position.
- **4:** Waiting to be de-activated by lift up feed rollers.
- **5:** Pins havent reached their home position in time, error waiting to be de-activated by lift up feed rollers by user.
- **6:** Pins havent reached their upper position in time, error waiting to be de-activated by lift up feed rollers by user.

gap: Distance between consecutive plates for determing is replenish can be given (mm).
ovt: Oven temperature (°C).
odc: Oven Duty cycle (%).
sdc: Side compesation Duty cycle.
reg: Actual compensation for regulation as in front and rearedge compensation(%)
cur: Measured current as a percentage of nominal (%), used for compensation for mains variations.
count: Taco pulse count since plate entry.
drt: Drier temperature (0,1 °C).
ddc: Drier duty cycle (%).
dpc: Drier pass counter, indication of sensor for printer printing, head pass (Times per second).

pwm: PWM for transport motor (%).
grb: Gum replenish bank, accumulated replenish (sec).
utt: Under floor heater temperature in feed table (gen. III only).
utd: Duty cycle of under floor heater (gen. III only).

More potential input sensors:

ost: Oven State, only valid when Main State is pcs.
wfs: Wait for frontedge at oven sensor (switch not IR sensor).
wmt: Wait for minimum temperature in oven.
wfo: Wait for frontedge in oven.
ref: Regulation for frontend of plate.
ren: Regulation for center part of plate.
rer: Regulation for rear end of plate.
wfr: Wait for ready for next plate.
end: Wait for ready for next plate.
jst: Jog State, only valid when Main State is idl.
nrd: Not ready, switch sensor covered without IR sensor.
rdy: Ready.
exi: Plate detected by IR sensor.

php: Print head state
- **dis:** Disabled.
- **arm:** Enabled and ready.
- **stp:** Print head is stopped (cover open), wait for feed roller to go up.
- **wai:** Waiting for feedroller to go down. (then go to 'arm' state)

When press Enter again the readout will change, so that it lists the same parameters as when in other programs than "0". A header will indicate the parameters after each 10 lines of print out.

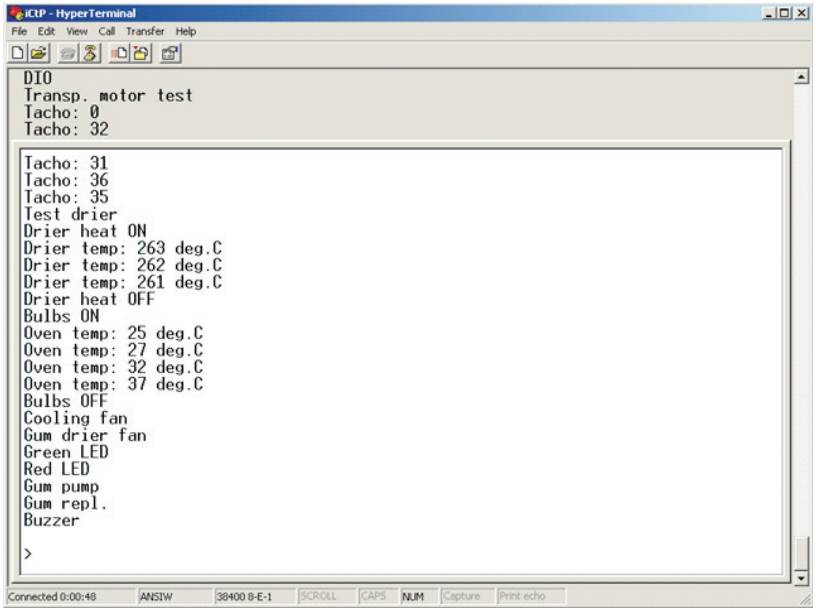
Diagnostic Output

- Type DIO and press Enter.

The screen will start to show the transport motor test and readout the tacho signal from the main drive motor. It will continue to read out the tacho until Enter is pressed again.

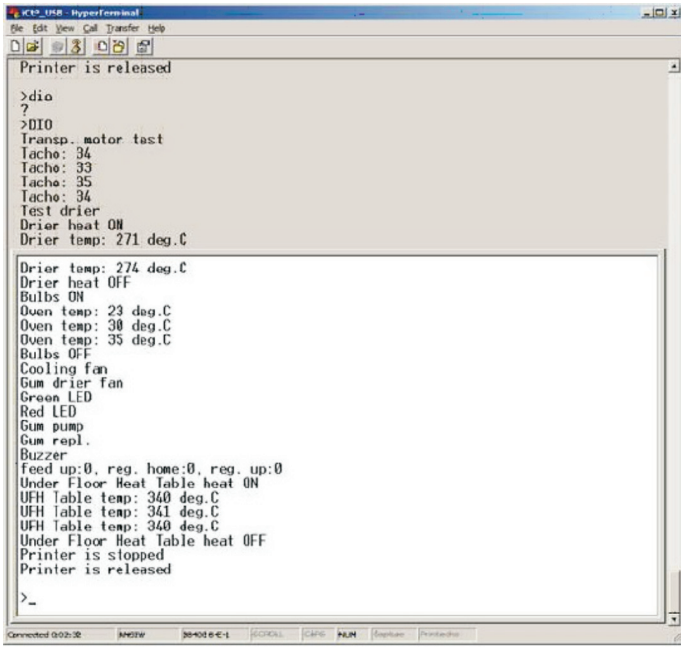
Next is the Test drier, where the ink drier temperature will be listed and the heater will be powered on.

Do not keep this one for a prolonged period. The heating element will continue to be one until the enter key is hit again.



Diagnostic Current

- Type DIC and press Enter.



The values shown are in mAmps and as it lists "Current 1" through "Current 4" it will power on one lamp at a time. The readout should collerate to the wattage of the lamps in the curring unit. (500 watt lamp will readout approx. 2500 at 220 volts, 400 watt lamp will readout approx. 2000 at 220 volts etc.)

Adjustments

Plate temperature settings (BE)

Attach thermostrips to the back of a plate and run it through the finishing unit using a suitable program (see the User Manual, Part 2: Daily use, Finishing).
Check that the temperature is between 170 and 200 all over the plate.
Adjust parameters 1BE, 2BE or 3BE depending on which program 1, 2 or 3 is selected.

If the temperature is lower than the range mentioned above increase the value by 5 or 10 and run the plate again with new strips. Repeat until temperature is within range for all plate gauges used.

Adjusting temperature settings

Adjust parameters 1BE, 2BE, 3BE for PW 2000 depending on which program 1-3 is selected. If the temperature on plate is too low decrease the value by 10-20 and run the plate again with new strips. Repeat until the temperature is within range for all plate gauges used.
Remember to type SAV to save temperature settings after they have been changed.

Gum/water replenishment settings (GR)

If the gum becomes thicker during the day it might be necessary to increase the GR value. Increase 1GR, 2GR or 3GR (depending on which program 1, 2 or 3 is selected) but keep close attention that the iFinisher does not become too thin. Check that the level in the iFinisher container actually decreases (and **never** increases) during a day's production.

Part 4: RIP Installation

Overview

The installation procedure described in this chapter covers the following issues:

- Installation of the Epson 4880/7700/9700 printer driver
- Connecting PlateWriter and proofer to the RIP workstation
- Installation of Navigator RIP
- Installation of plug-ins and manuals
- Launching and configuring the Navigator RIP
- Creating and calibrating a proofing Page Setup

Connecting the System and optional proofer to your RIP workstation

Having charged the PlateWriter System with Liquid Dot (see "Hardware Installation" manual for details), you should already have it plugged into the mains.
To complete the installation of the driver, you must connect your PlateWriter System to your computer.
If you have also purchased the optional proofer, you should now go ahead and install this, following the manufacturer's instructions.

Epson 4880 & 7880 proofers only

Locate the Installation CD.
Switch the printer on.
Insert the ink cartridges and allow the printer to perform the ink charging cycle (about 10 minutes).
Start the installation from the installer CD supplied by Epson with the system or you can use the **PlateWriter RIP 8 Installer DVD** where the drivers for Epson 4880 and 7880 also can be found.
When the installation software starts to search for the printer, connect the proofer to your RIP workstation.
When it is installed, quit the installer and restart your workstation.

Installing the Navigator RIP for Windows

General

The Navigator RIP is installed on the RIP workstation delivered with the system. This workstation has been specifically configured to deliver the best performance possible and includes Windows XP Pro, 2 GB of interleaved RAM, and about 150 GB of available space on the hard drive after installation.
Should the RIP not be installed on your RIP workstation or, if you for some reason need to reinstall it, the below described installation procedures outline the steps necessary for installation of the Navigator RIP, the Inkjet PlateMaking X1 plug-in, the iCTP proofing plug-in, the iScreen plug-in, a predefined RIP setup with limited calibration profiles, the user documentation and Acrobat Reader 9.

Before installing the Navigator RIP

Set up the PlateWriter hardware as described in the separate Hardware Installation manual.

Overview

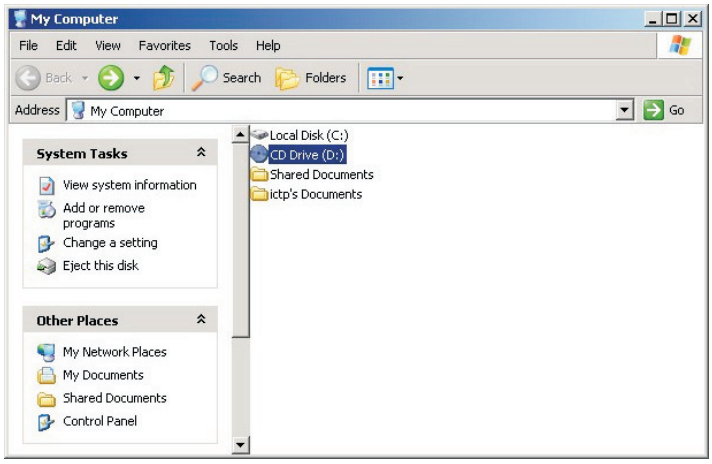
Installing and configuring the Navigator RIP for PlateWriter on Windows XP Pro consists of these basic steps:
Installation of the RIP and dongle software.

Do NOT plug in the USB dongle before you have completed installation of the dongle software.

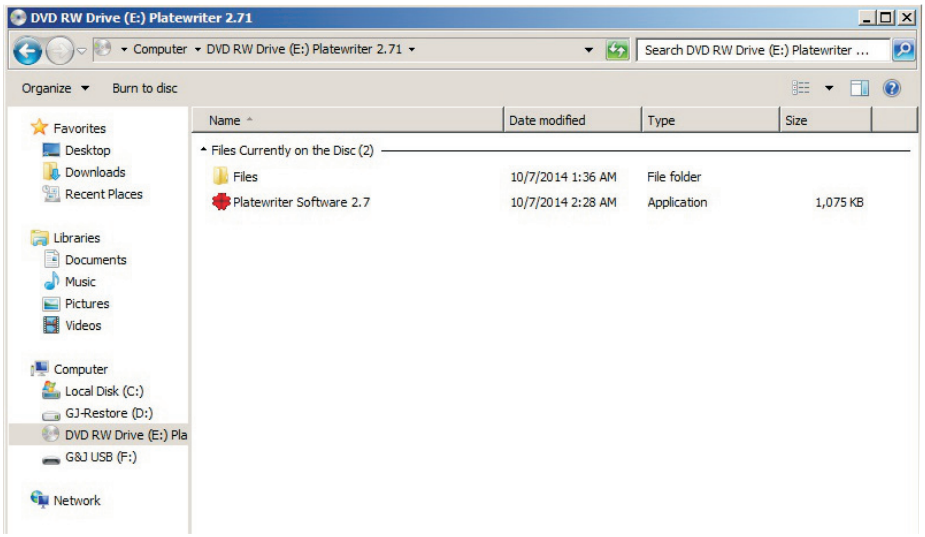
Installation of the Inkjet PlateMaking plug-in, calibration profiles and the iScreen plug-in.
If required, installation of the optional Epson proofing plug-in and the associated Epson screening libraries.
Installation of Adobe Acrobat Reader.
Configuring of the RIP by printing **GJ factory default** file and entering passwords.

Installing the Navigator RIP, plug-ins and manuals

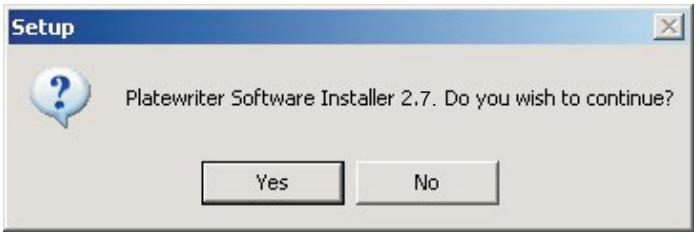
- Insert the **PlateWriter Installer DVD** into the RIP workstation.



- Locate the **CD Drive** and open it. Double-click the **Platewriter Software 2.7** icon.

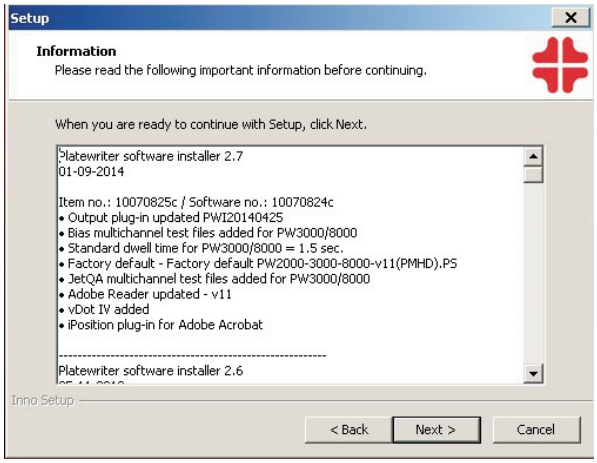


- New window will appear to ask if you wish to continue and run the **Software Installer**. Click **Yes**.

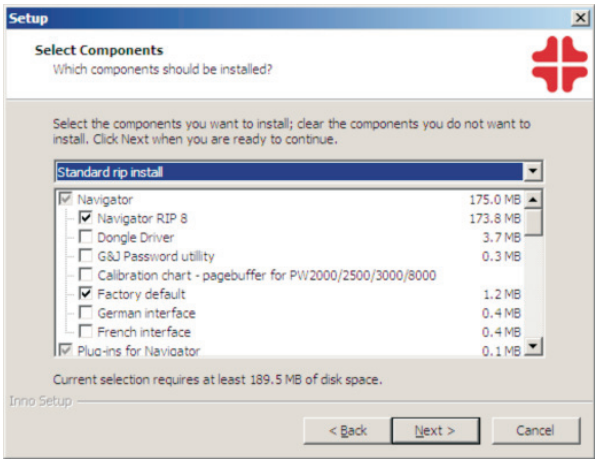


- **Software Installer** welcome window appears. Click **Next** to continue.

- Click **Next** to continue on the **Information** window listing the available components.



- In the **Select Components** window you can choose **Custom** or **Standard install**. The **Standard install** will select the most likely components to install.



- In general we recommend selecting the components from the **Standard install**, and then you can add on additional components.
- Please refer to the list on the next two pages.

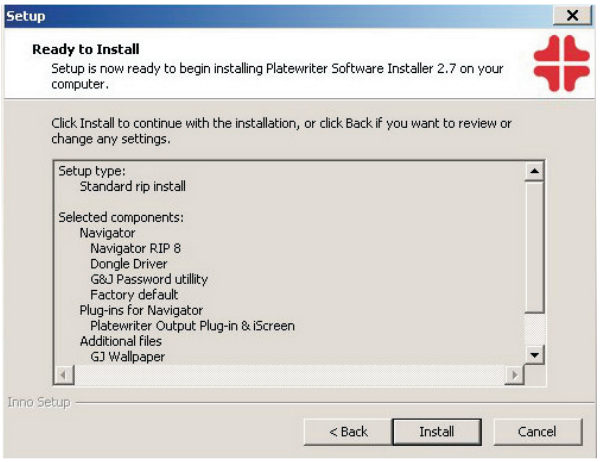
List of the components available for installation:

Categories	Item	Comments
Navigator	**Navigator RIP 8**	This is the main Navigator RIP 8 application and **must** be installed.
	Dongle Driver	Installs the Sentinel Dongle Driver and is **required** to run the RIP.
	G&J Password Utility	Application to configure the passwords for iScreen and PlateWriter Output Plug-in and **must** be installed.
	Calibration chart	Test charts with predefined calibrations selected based on the standards in the RIP.
	Factory default	Installs the file which can be activated in the RIP to configure the memory settings, create some sample Page Setups, and install a number of preset calibration curves for different printing presses. It is highly **recommended** to install it.
	German/French interface	Installs German/French user interface to the RIP. **Do not select this option when installing the RIP!**
Plug-ins for Navigator	**Platewriter Output Plug-in & iScreen**	Installation of this feature will enable the Inkjet PlateMaking X1 plug-in for the PW2000/PW3000/PW8000. This is required for the RIP to communicate with the System and **must** be installed.
	CIP 3 Plug-in	**Must** be purchased as an option and is used to control the ink level on press based on reading from the RIP.
	vDOT II	Glunz & Jensen includes a standard proofing option for Epson 4880, 7880 and 9880 with the iCtP system. For advanced proofing options you will need to purchase ColorPro option.
	vDOT III	
	vDOT IV	
Additional files	**GJ iPosition**	Copy the installer file for iPosition to the RIP hard drive. If installed, the program will run a full time limited version of the program. A dongle is required to run the application.
	GJ iPosition Acrobat Plugin	????????
	GJ Wallpaper	Installs Glunz & Jensen special wallpaper.
	Sample files	Sample files and test files in PDF.
	PosiFlow 5 workflow software	Software that makes possible to control the RIP software from one or more remote computers and set up different queues/actions.

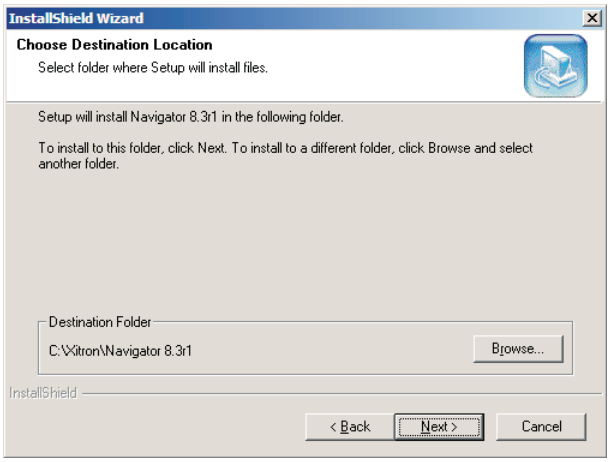
Categories	Item	Comments
	ExtremeZ 5.03	Software that provides printing connectivity across platforms. The program is used for creating virtual printers with AppleTalk or Bonjour protocols. Use this to print directly from your Mac/PC to a Spool/Hot Folder on your RIP PC.
	ExtremeZ 6.03	
	ExtremeZ 7.1x14	
	Maintenance movies	Video showing the maintenance of the PW2000/3000 ink system. Highly recommended!
	TrapPro default settings	Installs the default settings for trapping, when using the TrapPro in the RIP.
Driver setup	**PW2000 printer driver**	Installs the printer driver to the selected variant of the PlateWriter. The PlateWriter must be attached doing the install to configure the correct USB port.
	PW3000 printer driver	
	PW8000 printer driver	
Toolbox	**Product selector**	After selection of the RIP, is needed to select the type of the PlateWriter, matched to the RIP. Required to set up output plug-in.
	PW adjust for PW3000/PW8000	Software and print-files for the adjustment of the PW3000/PW8000. Highly recommended to complete the plate writer adjustment.
	PWAdjust utility	Adjustment utility for the PlateWriter 2000 platform.
	Raw Print adjust utility	Software allowing to send print-files (prn.) directly to the PlateWriter.
	Epson net tool	Software to configure the network card in the PlateWriter/NewsWriter image engine. Only used if you want to connect the engine via Ethernet.
	Windows PS driver	For creating a Windows PostScript driver.
	PPDs	PPDs for Windows and Mac OS.
	iCtP HyperTerminal	Installs HyperTerminal settings to Windows used to access the software of the finishing unit.
	Adobe Reader	For viewing the manuals and viewing PDF's supplied by customers for printing within the RIP. We **recommend** to install this application.
	Bonjour PS	Install Bonjour for Windows to connect with printing from the Windows platform.

- After selecting the components, confirm your choice by clicking **Next**.

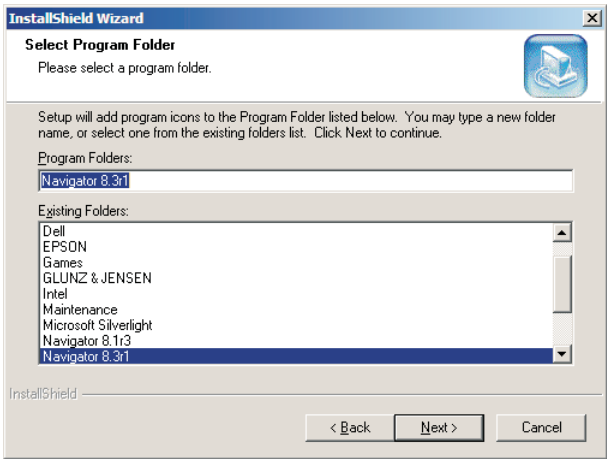
- Then press **Install** to continue.



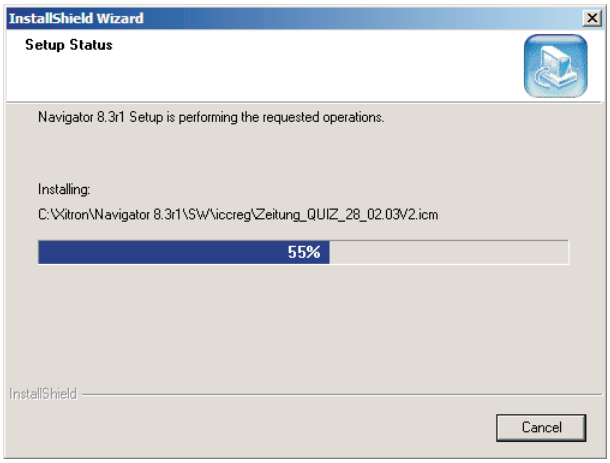
- Select the destination folder for the installation of the RIP. Make sure to accept the default **C:\Xitron\Navigator 8.3r1** and click **Next** to continue.



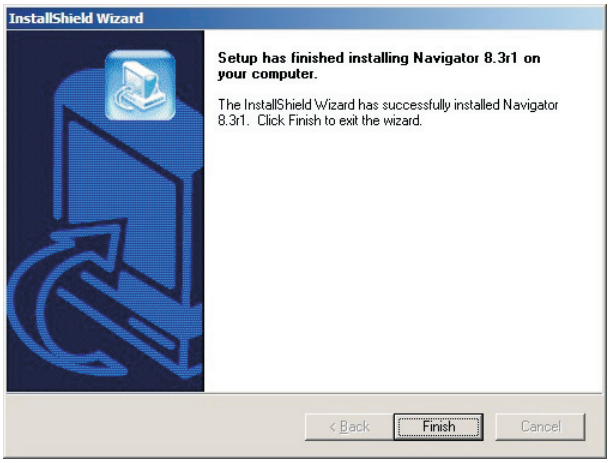
- Then click **Next** to accept adding Navigator shortcut in the **Programs** menu of Windows.



- The installation of the Navigator RIP will start.

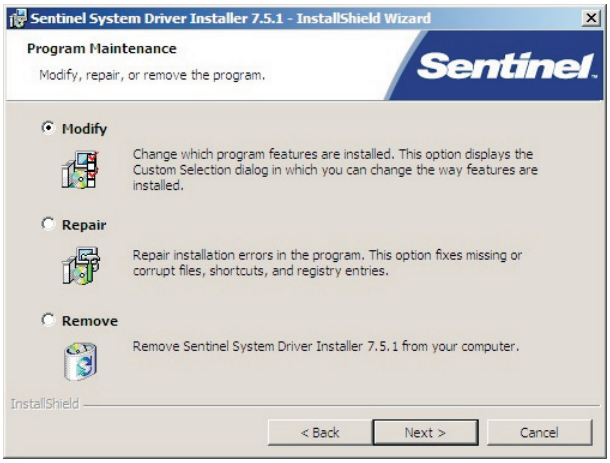


- When the installation is done, click **Finish.**

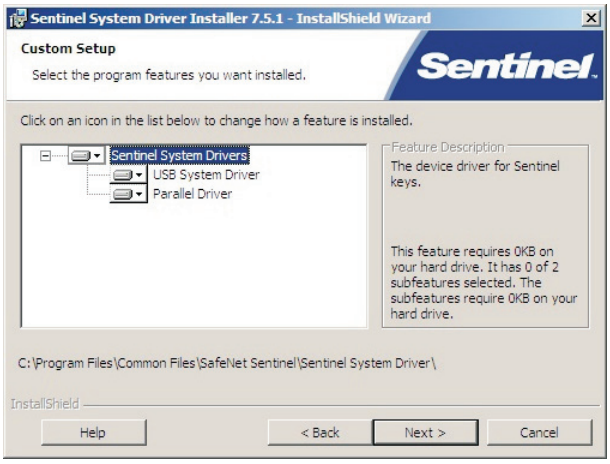


- The installer will continue to install the next item from the selected list of components, the Sentinel driver.
  When the welcome window appears click **Next** to continue.

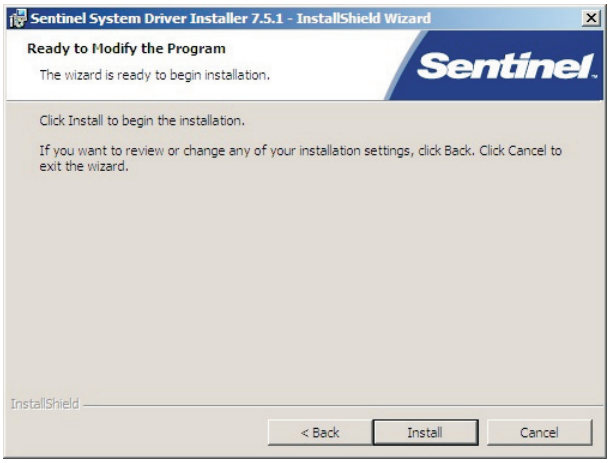
- When the Program Maintenance window appears, select **Modify** and click **Next** to continue.



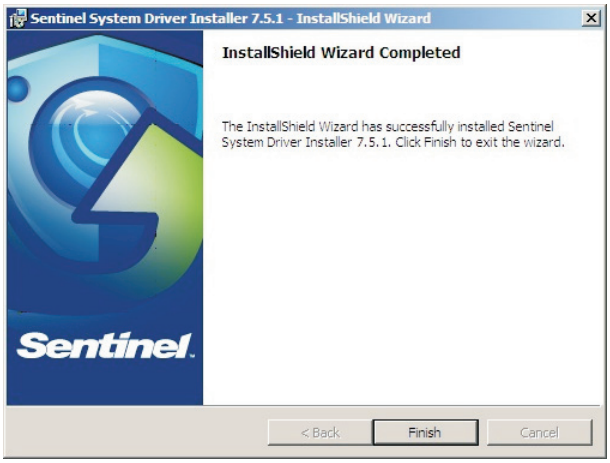
- In the Custom Setup window select **Sentinel System Drivers** and click **Next** to continue.



- Click **Install** to begin the installation.



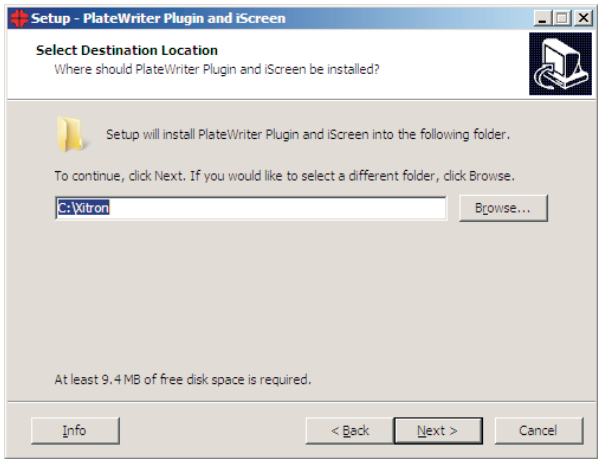
- After the installation a dialogue box will appear to inform that the installation was successful. Click **Finish** to continue.



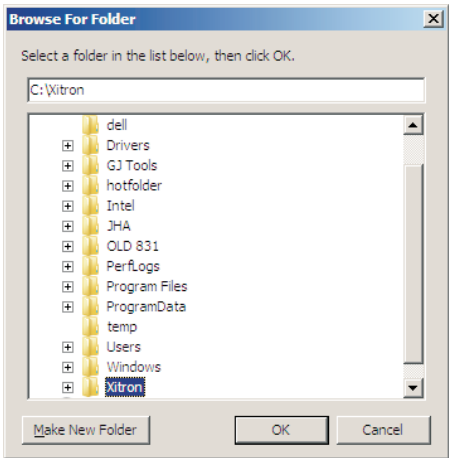
- A dialog box will appear to inform that the setup has finished installing PlateWriter Plugin and iScreen, click **Finish** to continue.

- Click **Next** to continue.

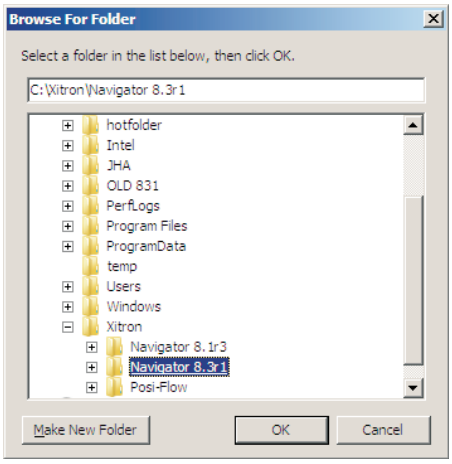
- Select Destination Location for Plugin and iScreen box will appear, click **Browse** to select folder.



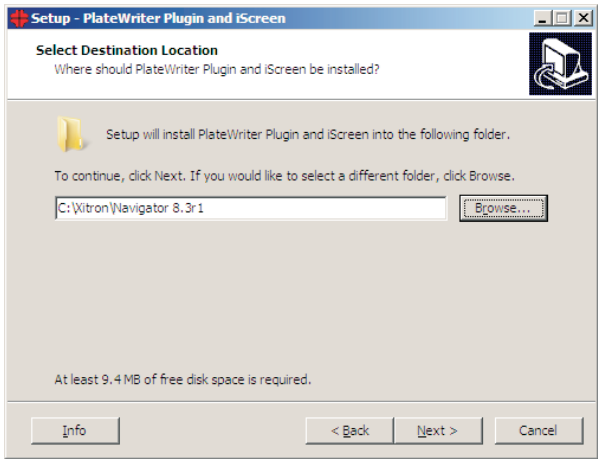
- Select Xitron....



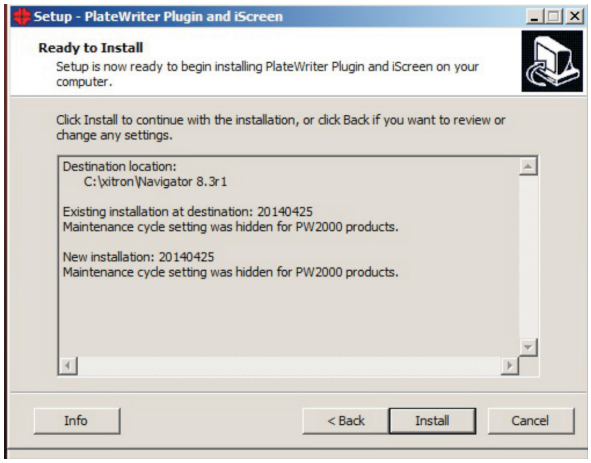
- Select **Navigator 8.3r1** and click **OK** to continue.



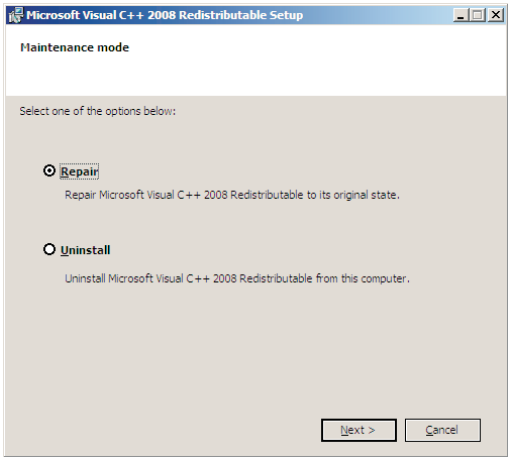
- Click **Next** to continue.



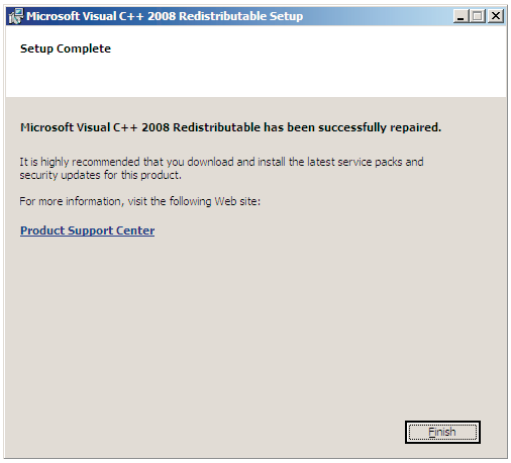
- Ready to Install box will appear, click **Install** to continue the installation.



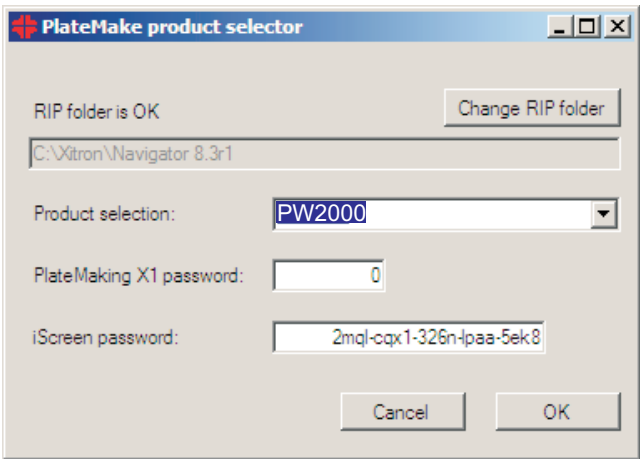
- Maintenance mode box will appear, select **Repair** and click **Next** to continue.



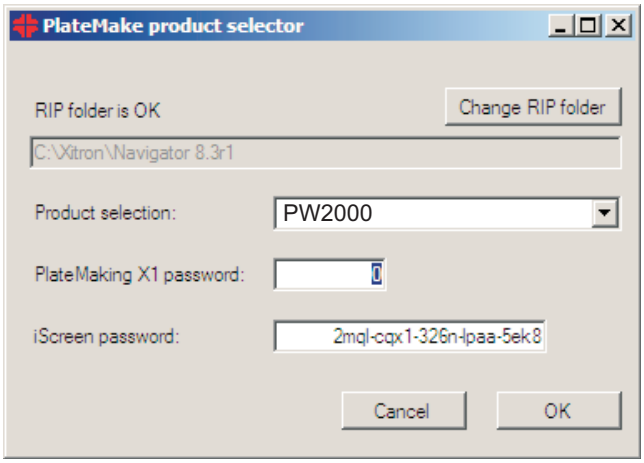
- After the Setup is complete, click **Finish** to continue.



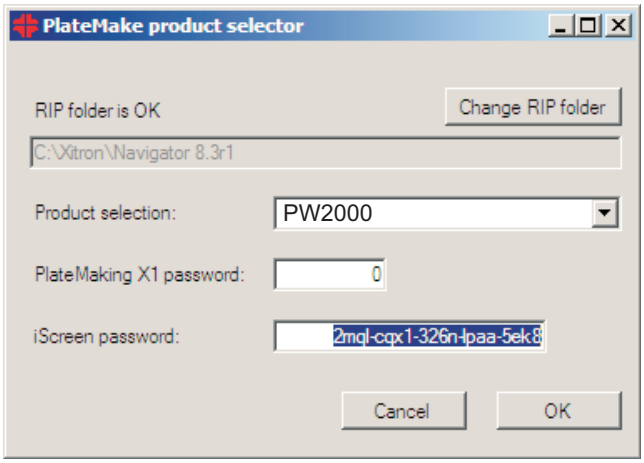
- After the PlateMake product selector box will appear, select **PW3000** in the Product selection row and click **OK**.



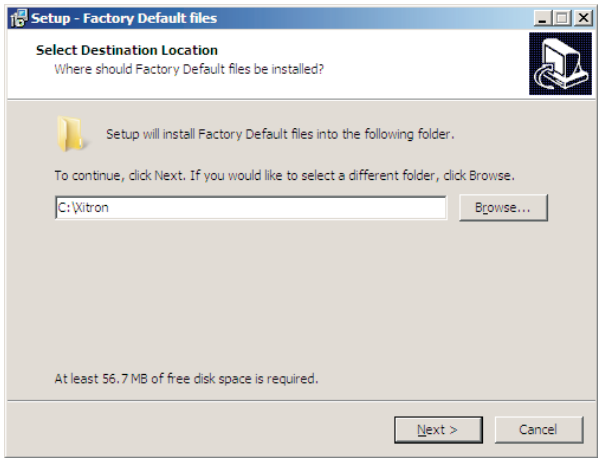
- Write the PlateMaking X1 password in window (see IJMPX1 code from the code sheet).



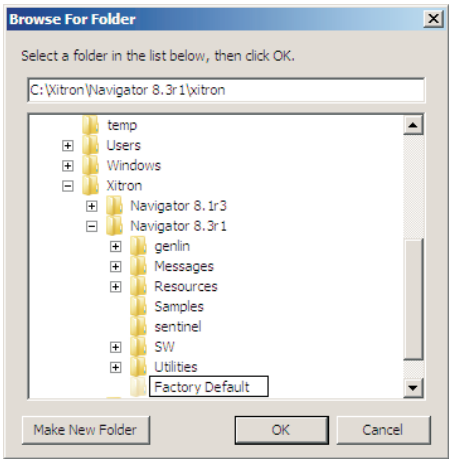
- Write the iScreen password in window (see iScreen code from the code sheet).



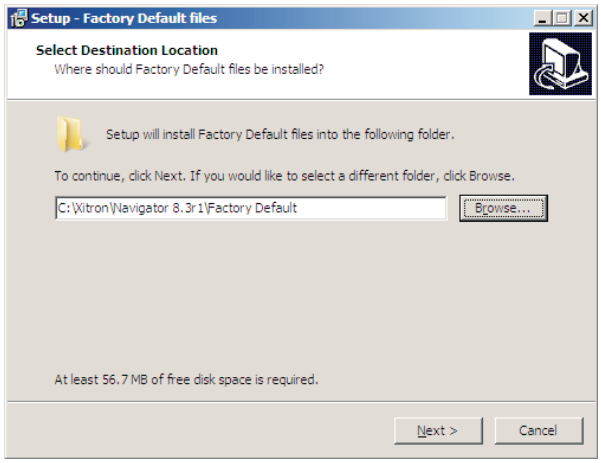
- A Select Destination Location for Factory Default files box will appear, click **Browse** to select folder.



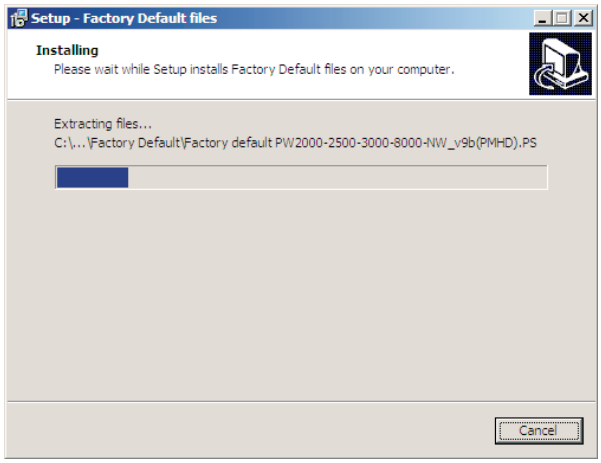
- Select **Navigator 8.3.r1** and click **Make New Folder**, name the folder **Factory Default** and click **OK**.



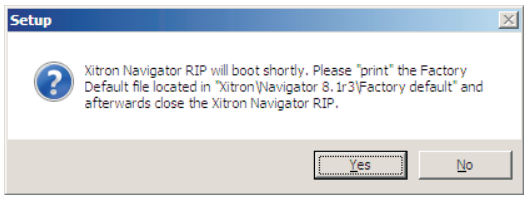
- Click **Next** to continue.



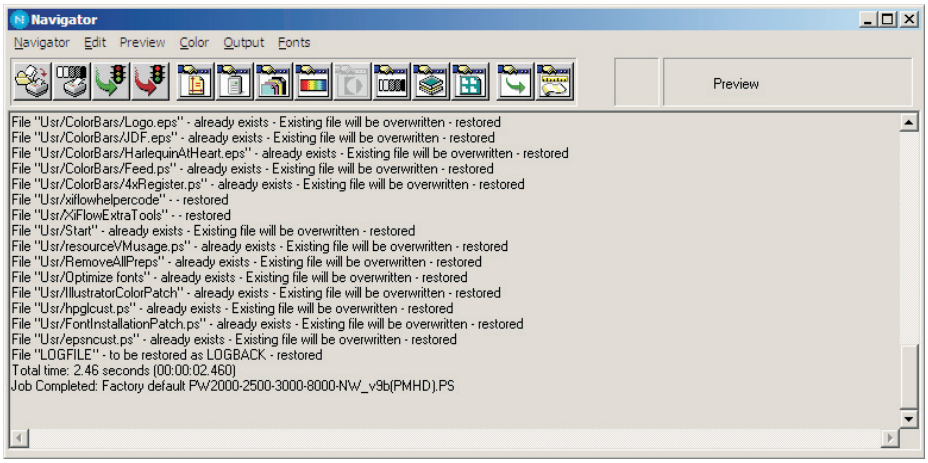
- Installation of the Factory Default files on your computer started.



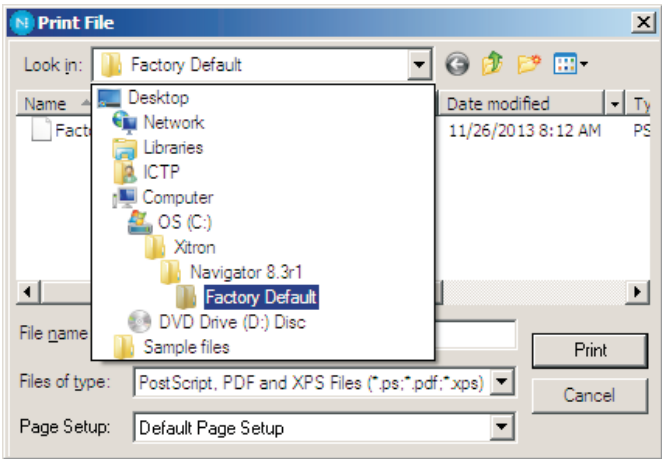
- Click **Yes** to continue.



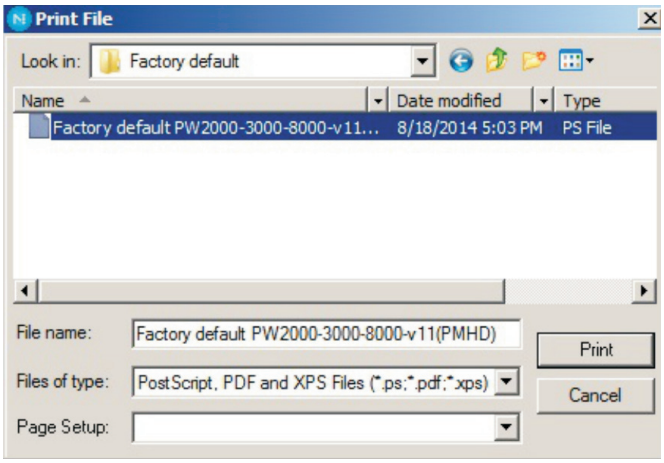
- The Navigator box will appear, click **Navigator-> Print File**.



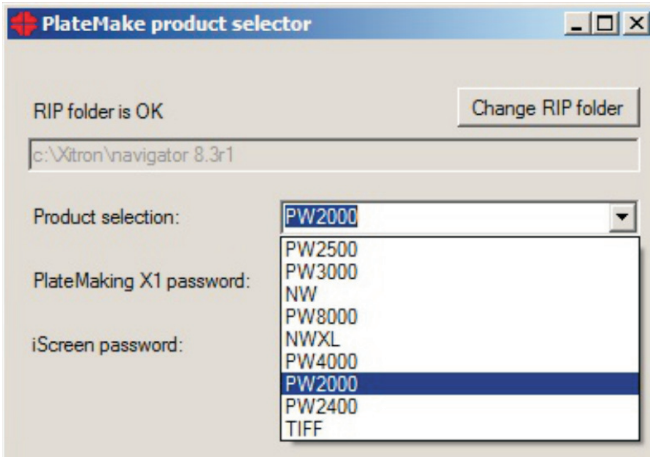
- Select Factory Default.



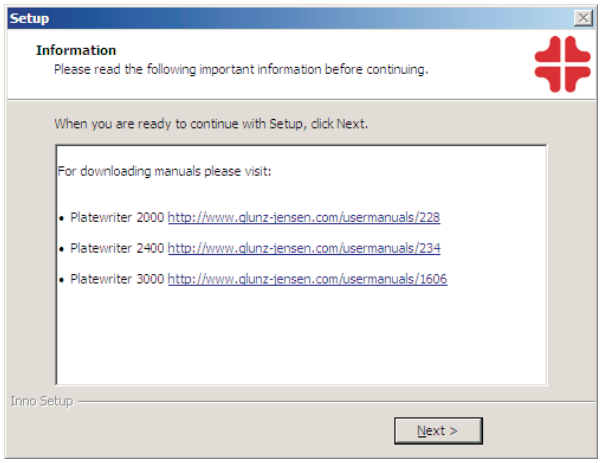
- Click **Print**.



- The PlateMake product selector box will appear, select **PW3000** and click OK.



- Click **Next** to continue.



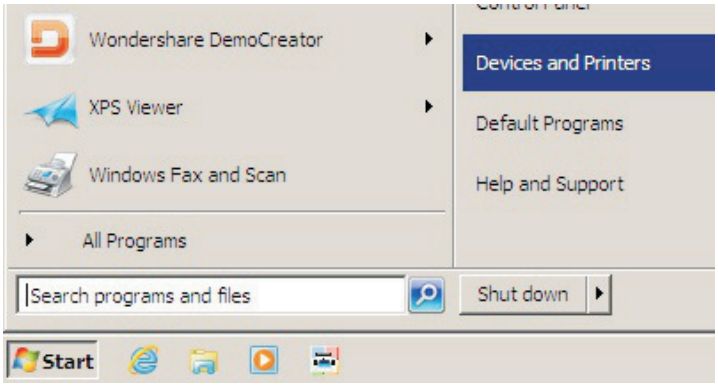
- Click **Finish**.

Installation of the RIP is completed.

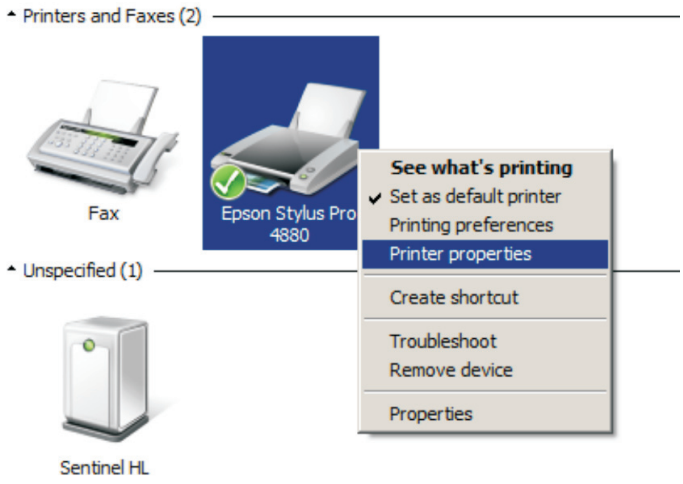
Renaming the Epson printer to PW2000

For the RIP to see the PlateWriter, it is needed to rename the previously installed Epson Stylus Pro 4880 printer driver to **PW2000**:

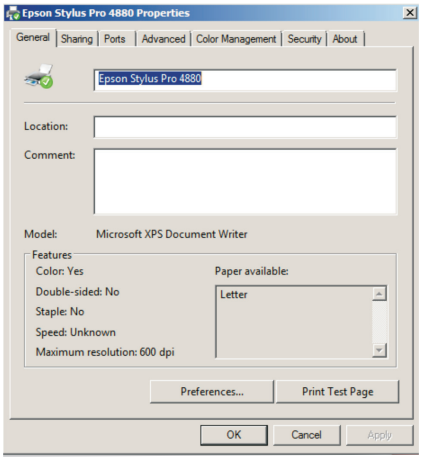
- Select the Windows **Start** button in the bottom left corner of the screen, then select **Devices** and **Printers**.



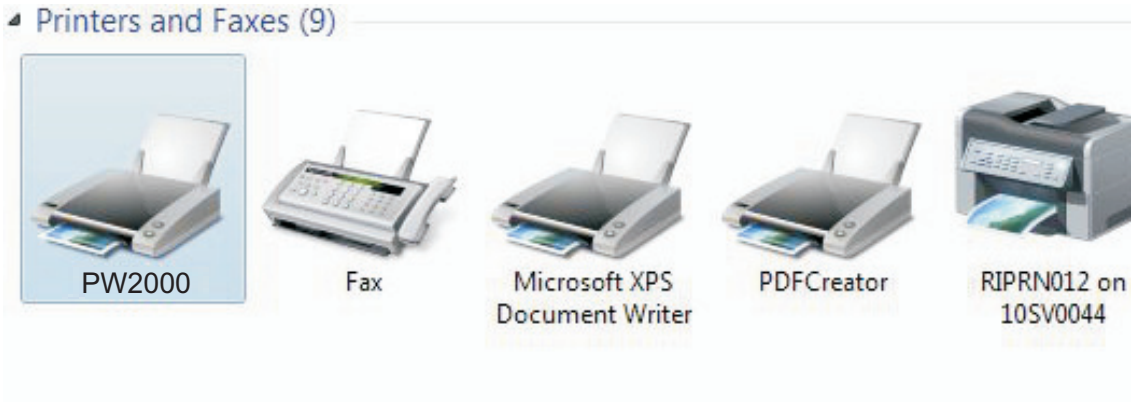
- The **Devices and Printers window will appear.**
  Right click on the Epson Stylus Pro 4880 printer, and from the appearing menu select **Printer properties.**



- The Epson Stylus 4880 Properties window will appear.



- The printer name becomes selected, now rename the Epson Stylus Pro printer to **PW2000 and press Ok**.
- The printer name is changed.



Launching the RIP for the first time

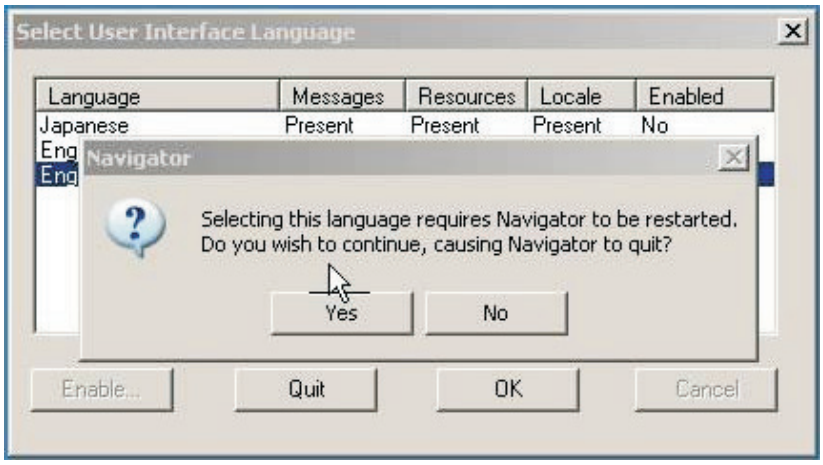
First plug in the **dongle**.

If you do not plug in the dongle, the RIP will fail to launch with a "Super Pro, C Plus Activator dongle not plugged in or invalid" error.

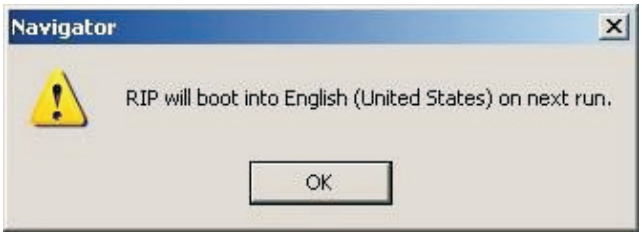
- Locate the **Navigator** icon which was placed on your desktop by the installer.

- Double-click it to launch the RIP.
- When launching the RIP for the very first time, it will ask to select **User Interface Language.**
- Select **English (United States)**. This is the keyboard map for the keyboard supplied with RIP workstation.
- When selected the **User Interface Language**, the RIP will advise that it will need to restart.

If the German user interface is installed, it can be enabled here. Choose German, click Enable, type the password and click OK.

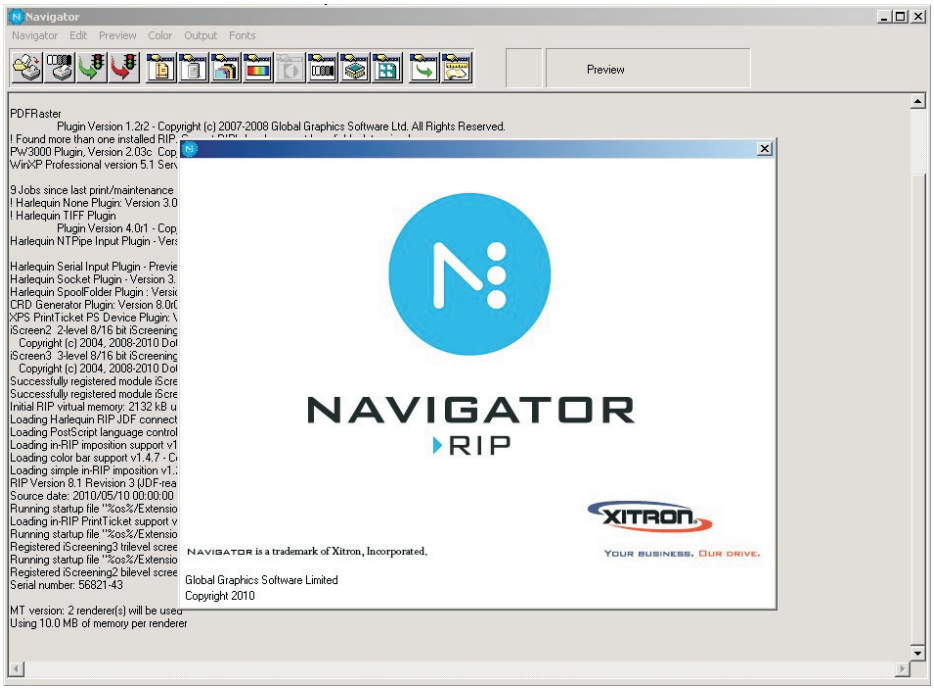


The RIP will advise that it will boot into chosen language next time.



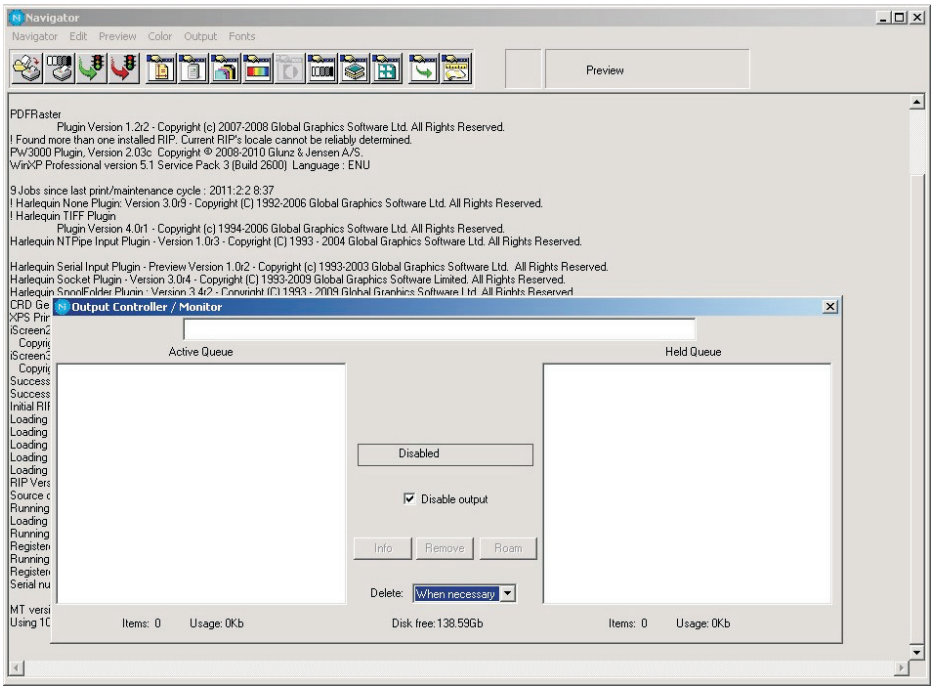
- Click **OK** to continue and then restart the RIP.

- The very first time the RIP starts, it will automatically run a start-up configuration.



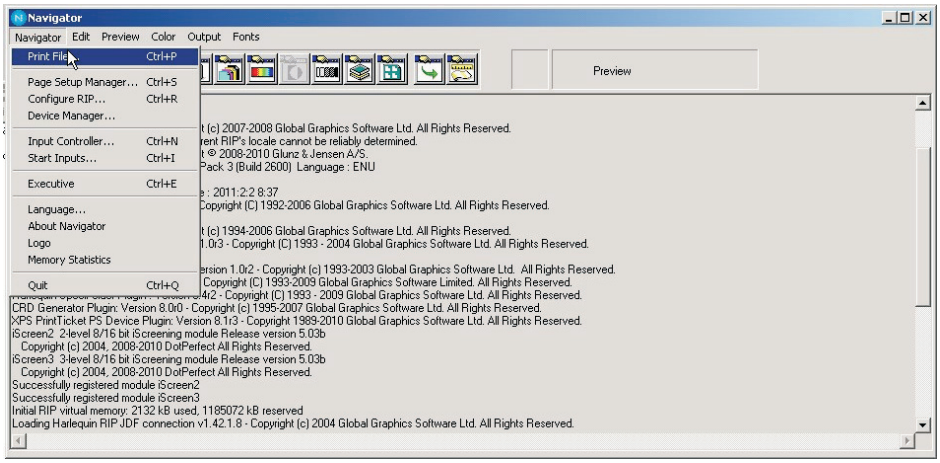
- The **Navigator** splash screen will appear, and behind it is the main screen. The main screen is called the **Throughput Window** and it displays information about the RIP, settings, jobs and the overall status.
- In the **Throughput Window** you will see how much memory the RIP has allocated, the plug-ins installed, the RIP serial number and anything else that may be installed. This can be useful information when troubleshooting (determining versions of plug-ins etc).

- Once the Splash screen has disappeared, the **Output Controller/Monitor Window** will appear (if it does not, press **Ctrl + O**).



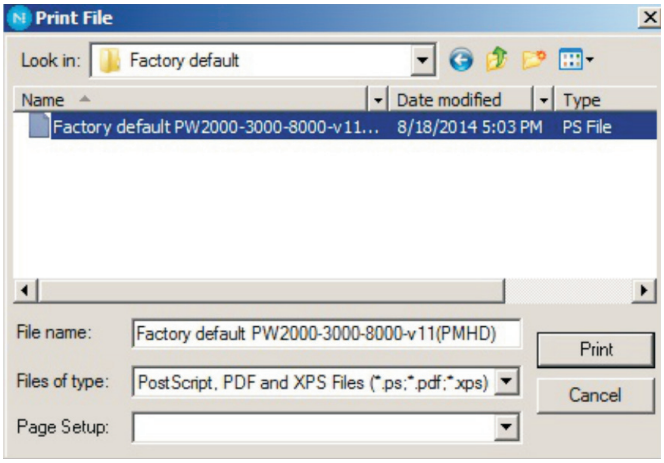
The **Output Controller/Monitor Window** shows jobs that are in the queue and jobs that have already been printed. It can be toggled On and Off by pressing the **Ctrl + O** keys. Any time you click in the background, it will disappear and you will need to toggle **Ctrl + O** to make it reappear.

- In order to reduce the time it takes to set up and configure the RIP, we have preset some settings in a file called **GJ factory default**. You will have to print this file.
- Click in the **Navigator** window to bring it to the front.



- Select **Navigator -> Print File…**
- In the **Print File** window navigate to the folder **C:\Xitron\Navigator 8.3r1\Factory default.** Double-click the folder to open it.

- Inside the **Factory default** folder...



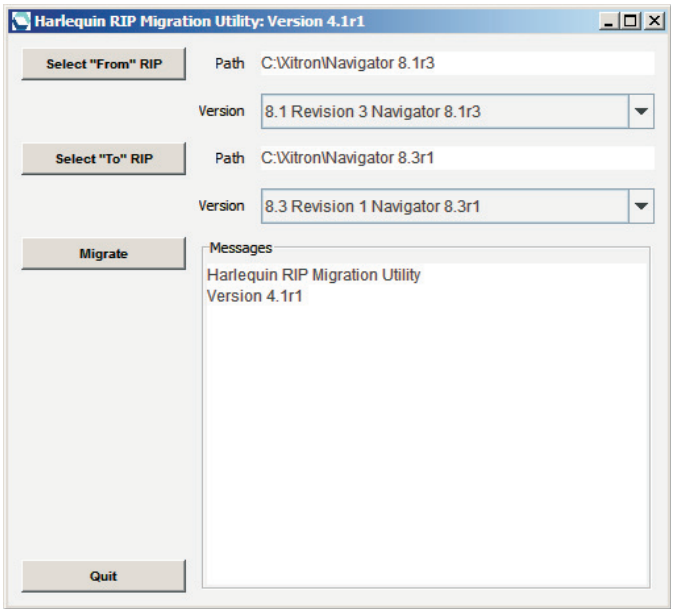
...set **Files of type** to **PostScript, PDF and XPS Files (*.ps,*.pdf,*.xps)** and **Page Setup** to **Default Page Setup**.

- Select the **GJ factory default** file and click **Print**.
- You will see text scroll down the **Throughput Window**. Once it has finished, select **Navigator -> Quit**.
- Restart **Navigator RIP**.

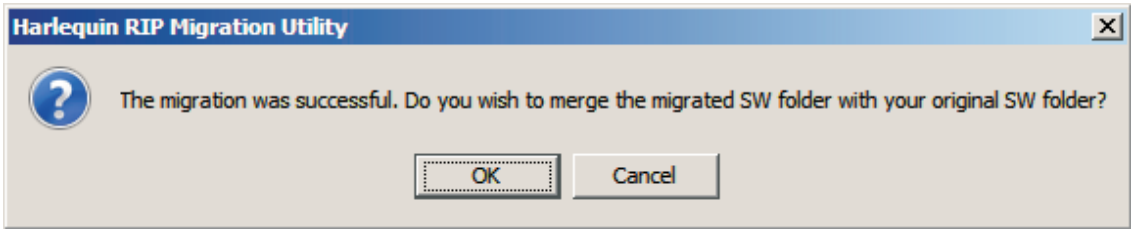
Printing the GJ factory default file sets up the RIP's Buffers, configures the Memory requirements, installs some Calibrations, Tone Curves (dot gain curves), and Page Setups for various printing press types. Also printing the file will provide most users with all the settings they need to start using the RIP immediately.

Once the RIP has restarted you will need to enter your unlock codes before you can start using the RIP.

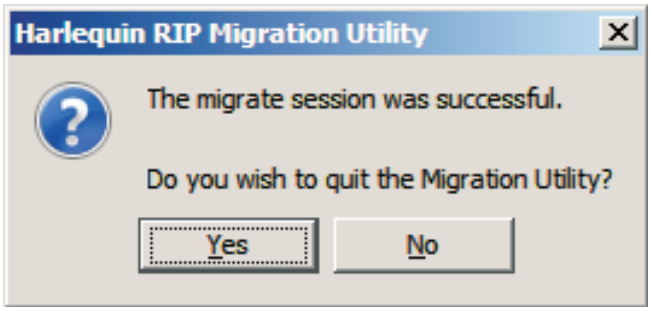
- Run file: C:\Xitron\Navigator 8.3r1\Utilities\migrate\SW_Migrate\Migrate.exe.
- Select old and new RIP and click 'Migrate'.



- Click 'OK'.



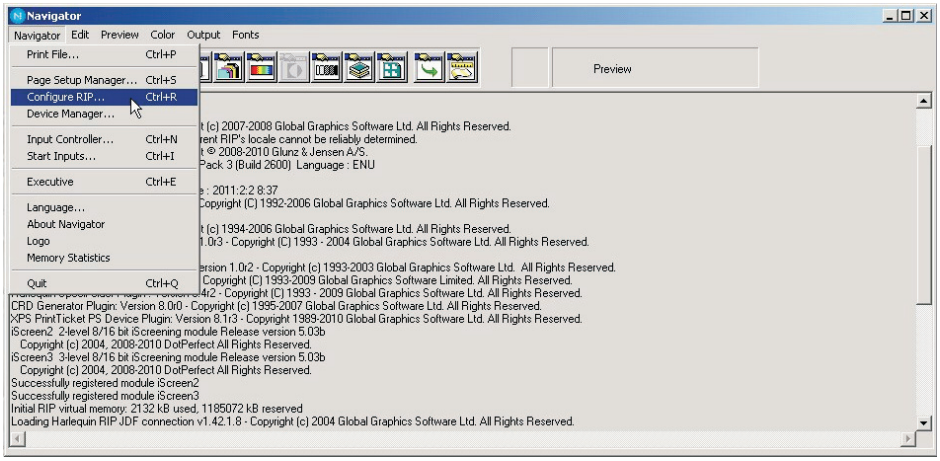
- Click 'Yes' and the transfer is completed.



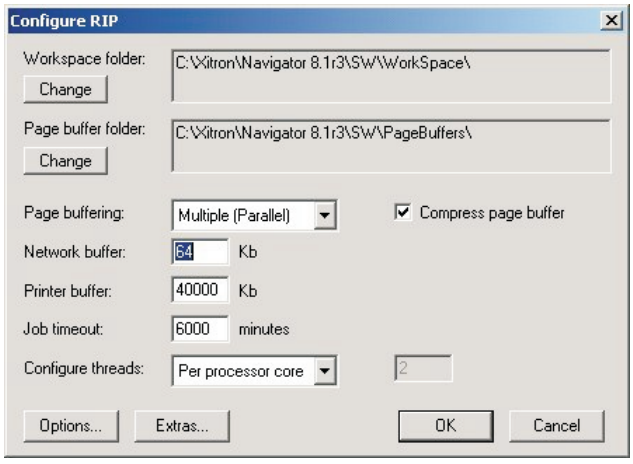
Configuring the RIP

After printing the GJ factory default file, all security unlock codes for the plug-ins will be erased.
Therefore when launching the RIP after printing the file you get several error messages. This is normal and is due to the RIP trying to activate the device for which the codes have not been entered.
The next step in configuring the RIP is to check that the buffer and memory settings have been configured correctly by the GJ factory default file, then to enter the Security Unlock codes for your devices/plug-ins and to restart the RIP one last time to activate the devices/plug-ins so that all the settings become active.

- Select **Navigator -> Configure RIP.**

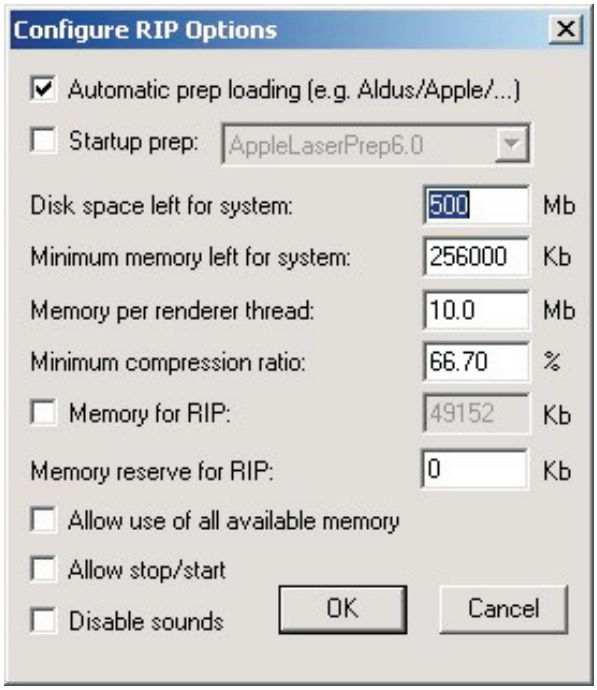


- This opens the **Configure RIP** dialog.

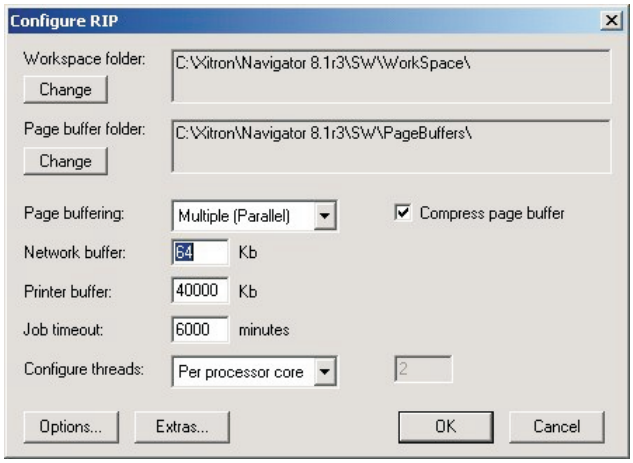


Set **Page buffering** to **Multiple (Parallel)**.
Set **Network buffer** to **64**.
Set **Printer buffer** to **40000**.
Click on **Options**.

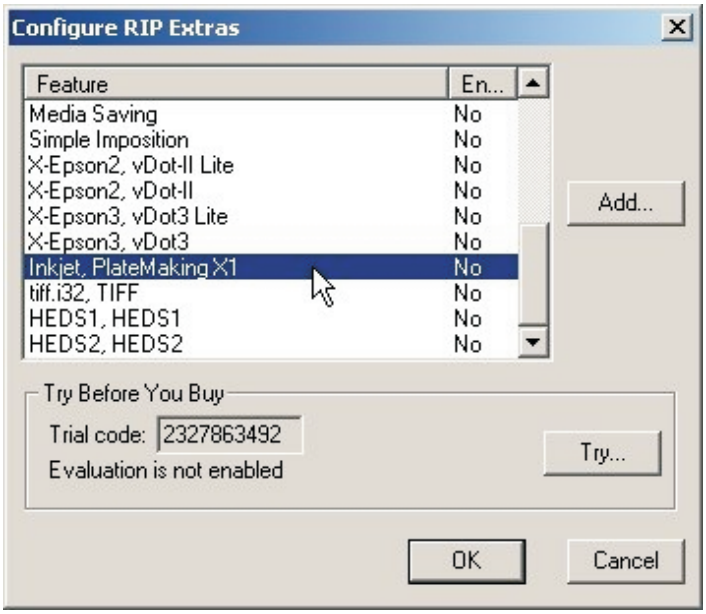
- This opens the **Configure RIP Options** dialog.



Set **Disk space left for system** to **500**.
Set **Minimum memory left for system** to **256,000**.
Click on **OK** to return to **Configure RIP** dialog.
Click **Extras…**

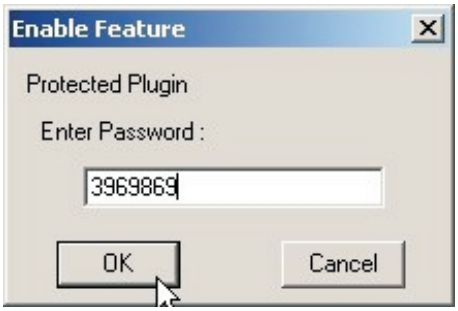


- This opens the **Configure RIP Extras** dialog.



There are a number of passwords supplied with your system, not all are entered here. If you purchased the optional **Proofing** function or **CIP3**, these passwords will be added separately later. For now you will need to enter the passwords for the Inkjet, PlateMakingX1 and for any other devices you purchased unlock codes for.

- Start by selecting the Inkjet, PlateMakingX1 item and click **Add...**
  Enter the corresponding password and click **OK**.



Repeat the procedure for any other features/devices you have codes for such as trapping or imposition.

- Finally click **OK** in the **Configure RIP Extras** and the **Configure RIP** dialog boxes to save these changes.
- Select **Navigator -> Quit** to exit the RIP.
- All of the configurations and passwords have been saved.
- Restart the RIP to activate changes and unlock codes.

Activating the color proofing option

The **iCtP System** supports **Epson color proofing** by default. You will need to type in the activation codes for this option.

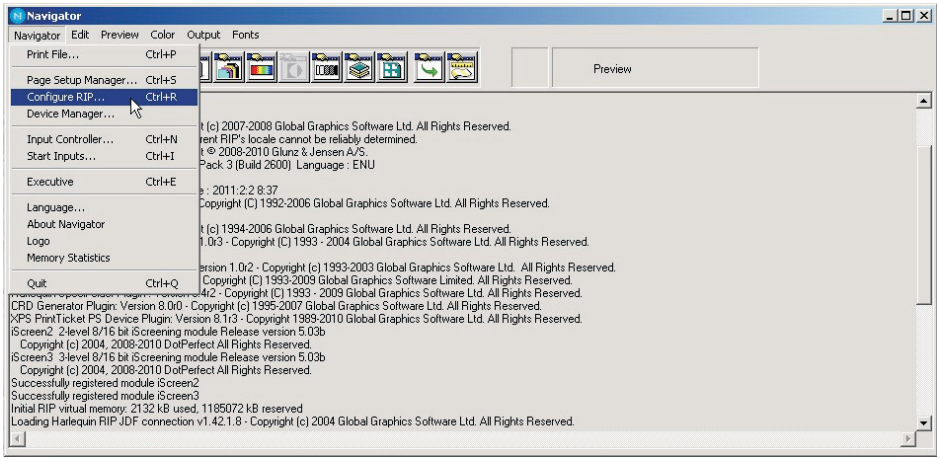
There are three main Epson color printers that can be activated:

- **Epson 4880**
- **Epson 7880**
- **Epson 9880**

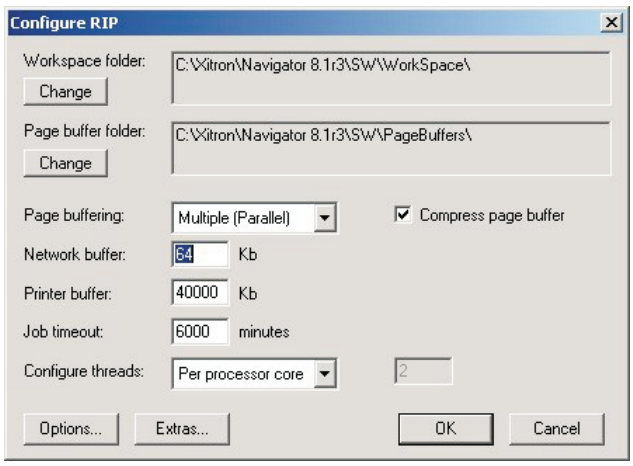
You should follow the instruction for activating the appropriate printer for the Epson that you have. You can purchase additional codes for activating other devices from Epson or other manufacturers, such as Epson 4800, 7800 and 9800.

Epson proofing activation

- Select **Navigator -> Configure RIP**.

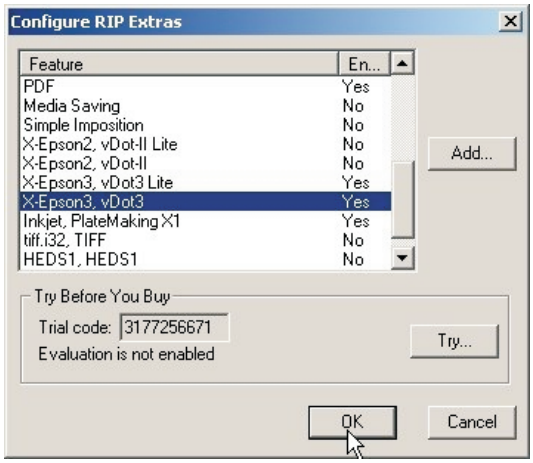


- This opens the **Configure RIP** dialog.

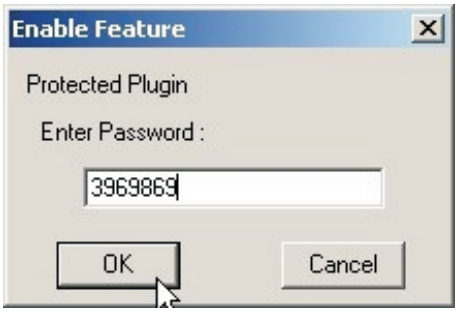


- Click **Extras...**

- This opens the **Configure RIP Extras** dialog.

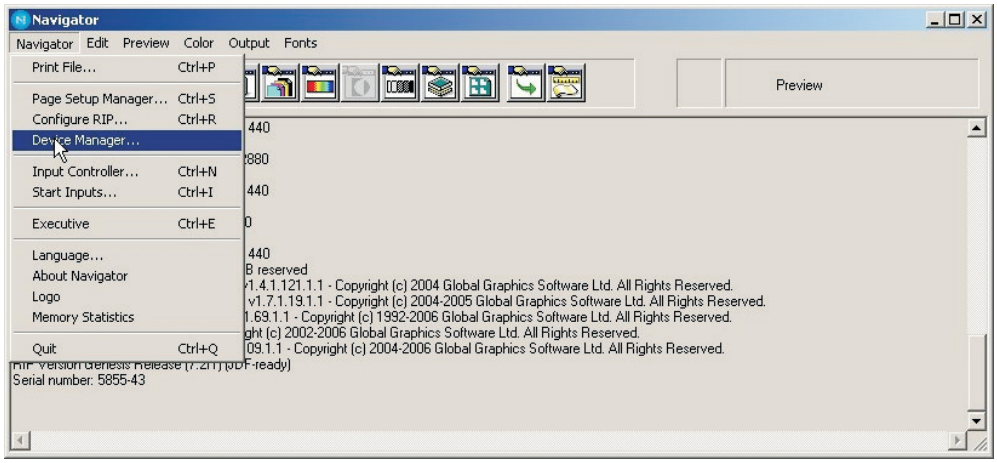


- Scroll down the list of features to the iCtP device **X-Epson3, vDot-3**. Click **Add...**
- Enter the **X-Epson3, vDot-3** activation code and click **OK**.

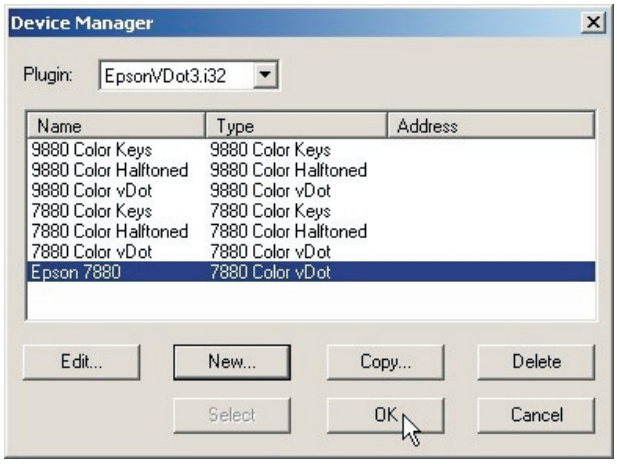


- Then click **Add** for activation of **X-Epson3**, **vDot-3 Lite**. Enter the **X-Epson3**, **vDot-3 Lite** activation code and click **OK**.
- Finally click **OK** in the **Configure RIP Extras** and the **Configure RIP** dialog boxes to save these changes.
- Select **Navigator -> Quit** to exit the RIP.
  All configurations and passwords have been saved, but the process has not been completed - see next page!

- Restart the RIP, then choose **Navigator -> Device Manager**.

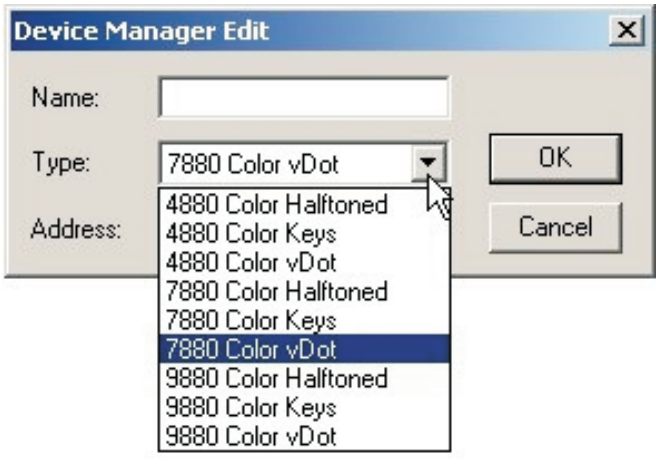


- The **Device Manager** dialogue appears. If you previously have entered the passwords correctly for **X-Epson3**, **vDot-3** and **Epson3**, **vDot-3 Lite**, you will see this list appear when choosing **Epson-vDot-II.i32** as plug-in.

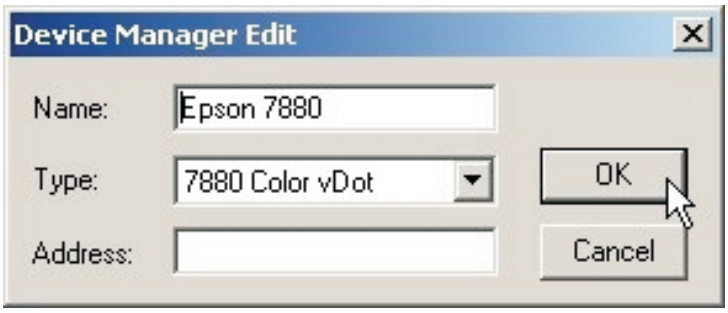


Click on **New...**

- The **Device Manager Edit** window will appear.

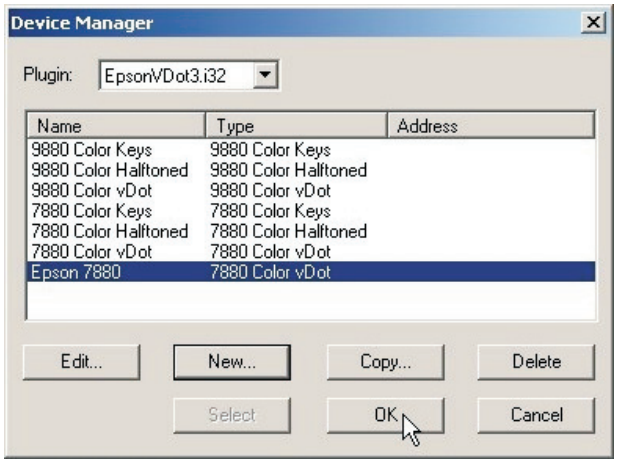


- In the **Type** drop-down menu you should see the Epson devices.
- Select **4880 Color vDot** or **7880 Color vDot** or **9880 Color vDot**, depending on which proofing device you want to add.
- Enter a name for the device.

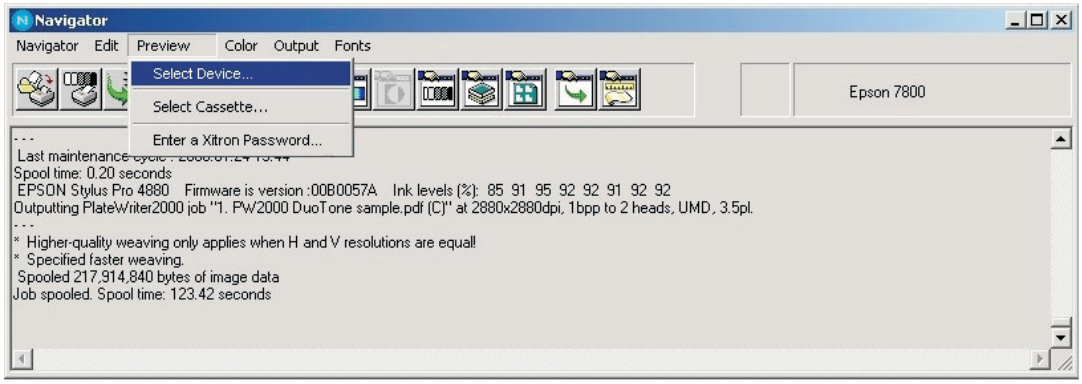


We recommend that you use a name that clearly identifies the device, e.g. **Epson 7800 Color vDot**.

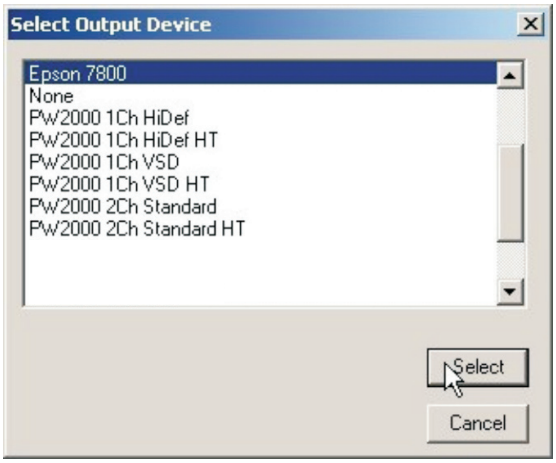
- Leave the **Address** field blank.
- Click **OK**.
- Now the **Device Manager** list will show the new device you have added.
- If you have added the device correctly, click **OK** to continue. The device is now added and ready to be selected in the Page Setup menu. The individual settings for the device can be configured here.



- Configuring other devices than Epson 4880, 7880 and 9880 may require adding additional codes. This is for example the case with Epson 4800, 7800 and 9800. Here you select the menu **Preview -> Select Device**.

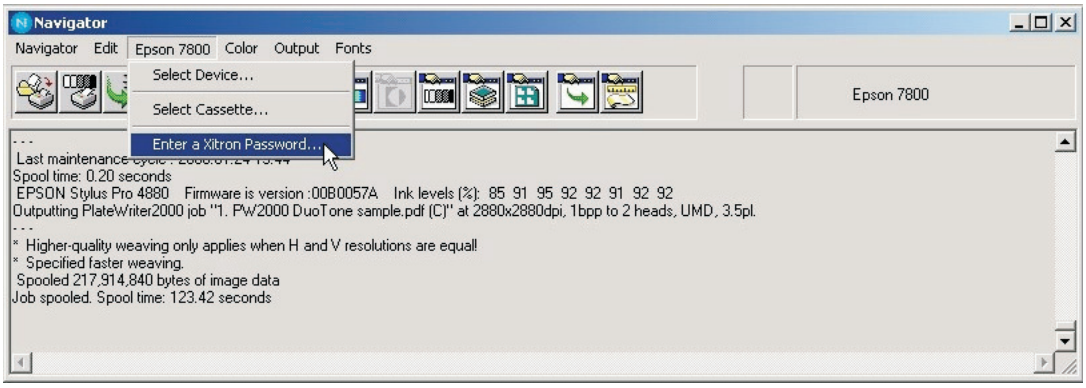


- The **Select Output Device** window appears.



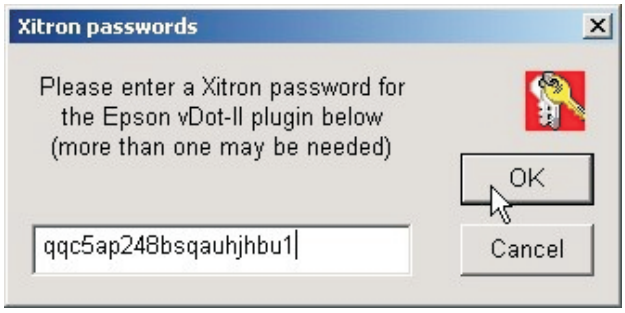
Select the device and choose **Select**. This is an Epson 7800, which was added from the Device Manager after installing the Epson vDot-2 plug-in. You will see the additional Epson 7800 you just added.

- You can now select the device and then enter password.
- In the top menu bar you will see the item **Preview** has been replaced by **Epson 7800**.

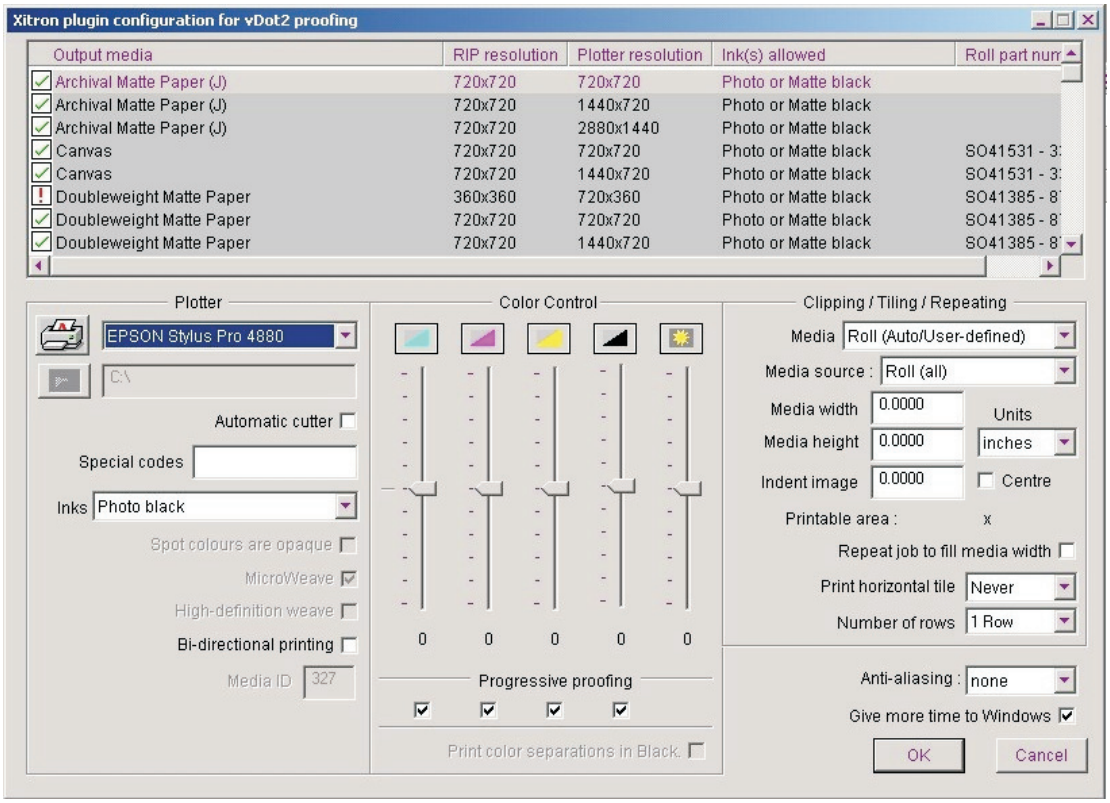


Select this menu item and from the drop-down menu select **Enter a Xitron Password...**

- Enter the second password you were given for **X-Epson2**, **vDot-2** and **vDot-2 Lite** for the **Epson 7800**. Click **OK**. Your Epson 7800 is now enabled.



- The **Epson2**, **vDot-2 Lite** passwords will be used for the **Epson 4800** series and the **X-Epson2**, **vDot-2** will be used for larger format Epson printers.



You have now completed the RIP installation. Please refer to the Operating Manual for information about creation of Page Setups and Print Queues.

Part 5: Trouble shooting

General

If the iCtP system does not work properly, refer to the following pages to find the paragraph that comes closest to your problem.

For cleaning and maintenance subjects see the iCtP system **User's Manual**.

The electrical diagrams are located in Appendix of this manual.

To change a fuse, switch off all power to the processor first.
Always ensure that the new fuse is of the correct rating according to the diagram.

Before starting troubleshooting

IMPORTANT

Plates and finisher solution are very sensitive materials and correct storage is vital to obtain a satisfactory production result. Incorrect storage may very well result in unsatisfactory processing quality etc.

Contact your local supplier for information about storage requirements for plates and finisher solution. Before making adjustments of the equipment make sure that incorrect storage of plates and finisher solution can be excluded.

Problems with the finishing unit

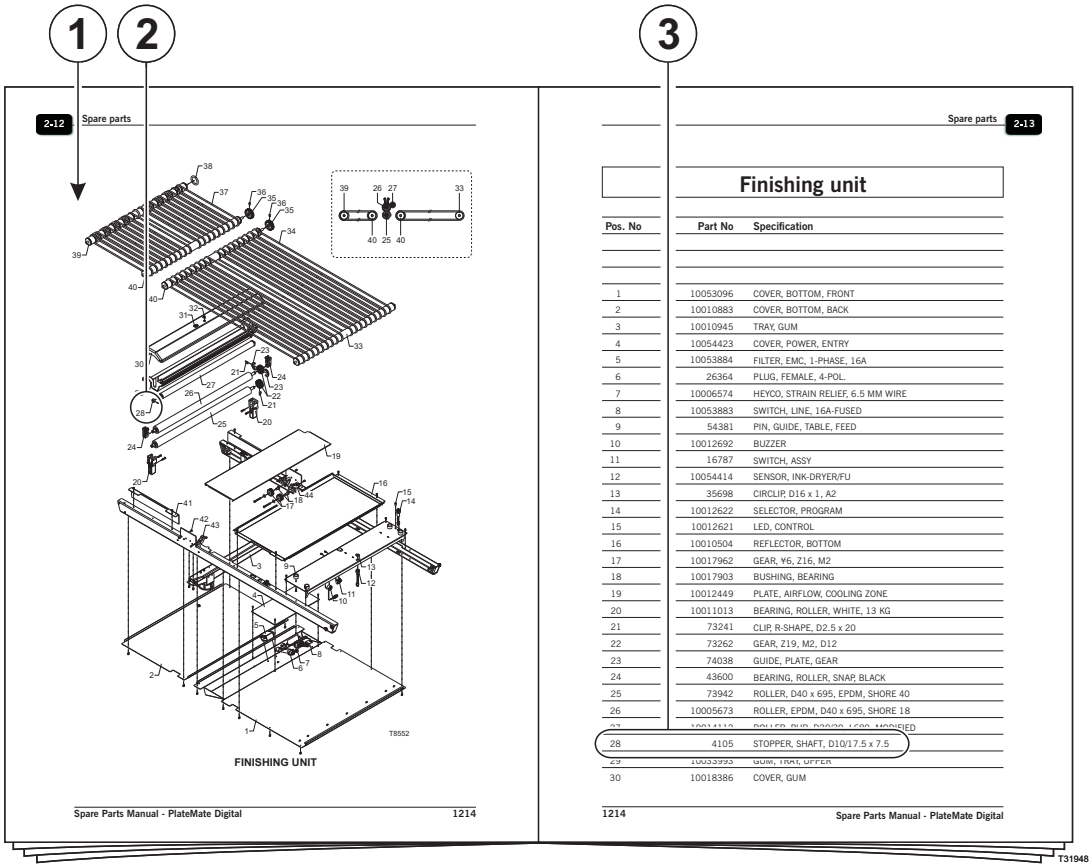
Indicator status and error codes

The finishing unit's status indicator lamp has several ways to indicate the current status of the unit and/or unit errors.

Problem	Possible cause for the error
GREEN - STEADY	Finishing unit is ready. Program selector may be changed before plate is placed on conveyor.
GREEN - FLASHES	Finishing unit is ready for plates using the selected program**.** Program selector must not be changed.
RED - 1 FLASH **BUZZER SOUNDS**	Unit is not ready because oven sensor is covered without conveyor sensor being activated first. Remove plate and place it properly above conveyor sensor.
RED - 3 FLASHES **BUZZER SOUNDS**	Bulb error - one or more bulbs in the oven are blown. Power the unit off, replace bulb, then power the unit on again.
RED - 4 FLASHES **BUZZER SOUNDS**	Motor regulation error - motor/conveyor is blocked. Power the unit off, remove obstacle, then power the unit on again.

Part 6: Spare parts

Finding a spare part



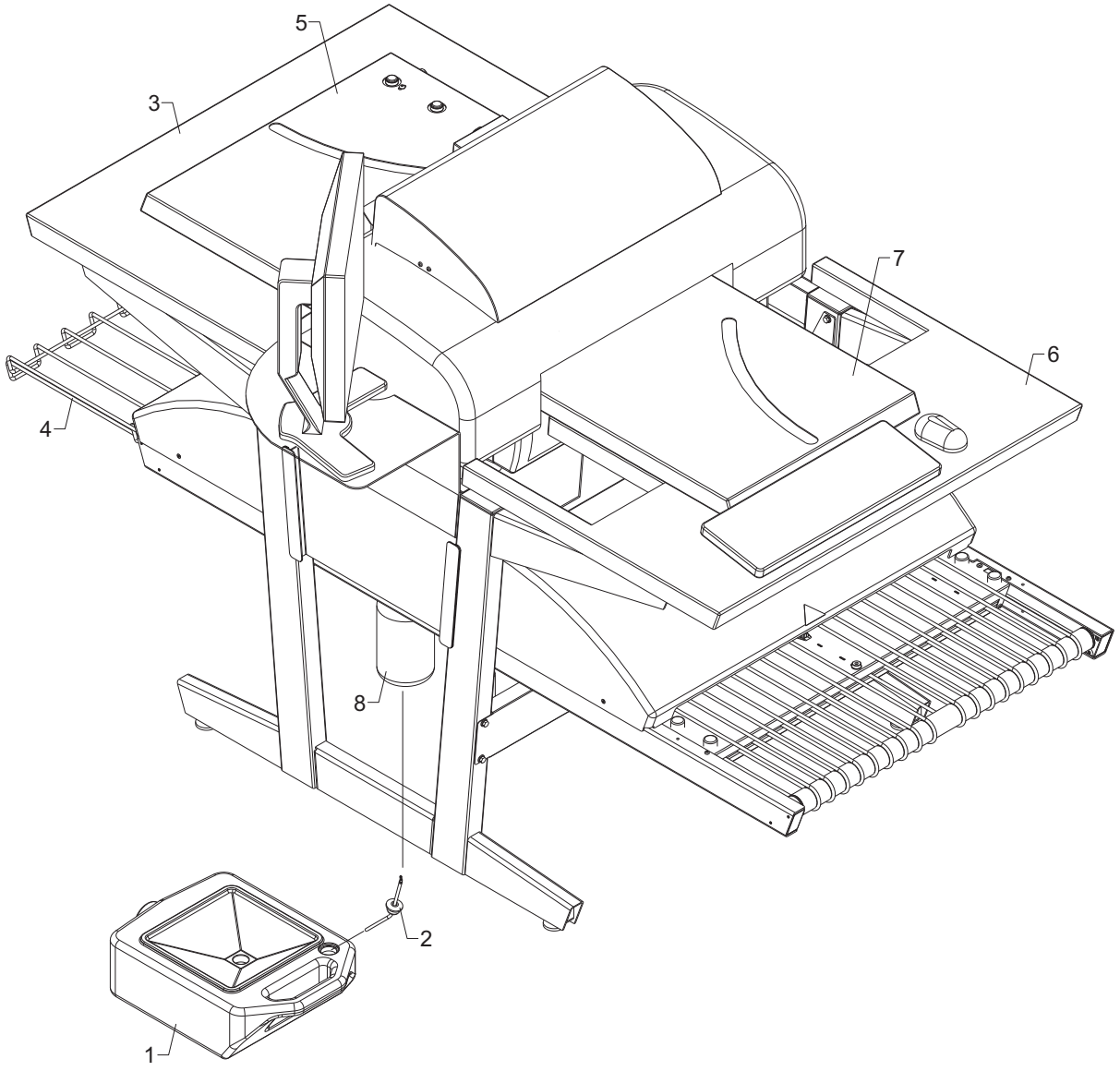
1. Find the pages covering the section where the part is located.
2. Find the specific part and the part's Pos. No. on the drawing.
3. Refer to the list on the opposite page to find the spare part's number and specification.

Ordering a spare part

When ordering spare parts please state carefully the spare part number, the part specification and the number of items wanted and send the order to your spare parts dealer. The cables and their part numbers can be found in the electrical diagrams placed in the end of this manual.

Original printer spare parts

To obtain the correct order number for original printer spare parts please use the "Imaging Unit" Service manual to find the part number for the part you need, then use the **Cross reference list** in this manual to find the corresponding spare part number to use when ordering the part.



TOTAL MACHINE

T8658

Total machine

Pos. No	Part No	Specification
1	10039877	TANK, 6L, BLACK/RED CAP
2	10039876	PIPE, SUCTION, WATER
3	10042718	TABLE, BASE, INPUT
3	10066196	TABLE, BASE, INPUT
4	10042649	TRAY, EXIT, SHORT
5	10042730	TABLE, INPUT, PRINTER
6	10042719	TABLE, BASE, EXIT
6	10066197	TABLE, BASE, EXIT
7	10042717	TABLE, EXIT, PRINTER
8	10010948	CONTAINER, 1L
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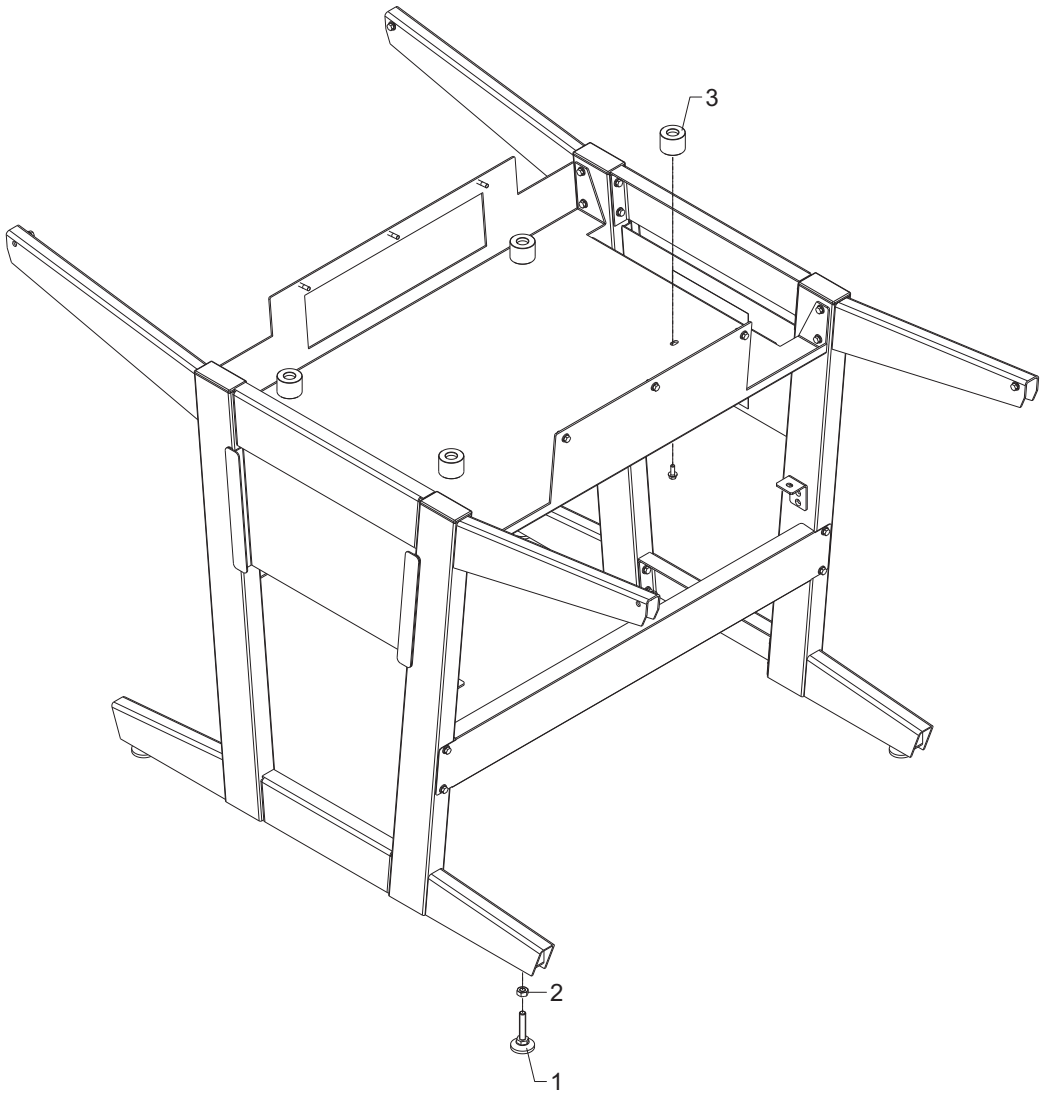

STAND

T8657

Stand

Pos. No	Part No	Specification
1	0011841	LEG, ADJUSTABLE, M10 x 50
2	1504	NUT, M10
3	10042650	FLANGE, FIXATION, PRINTER
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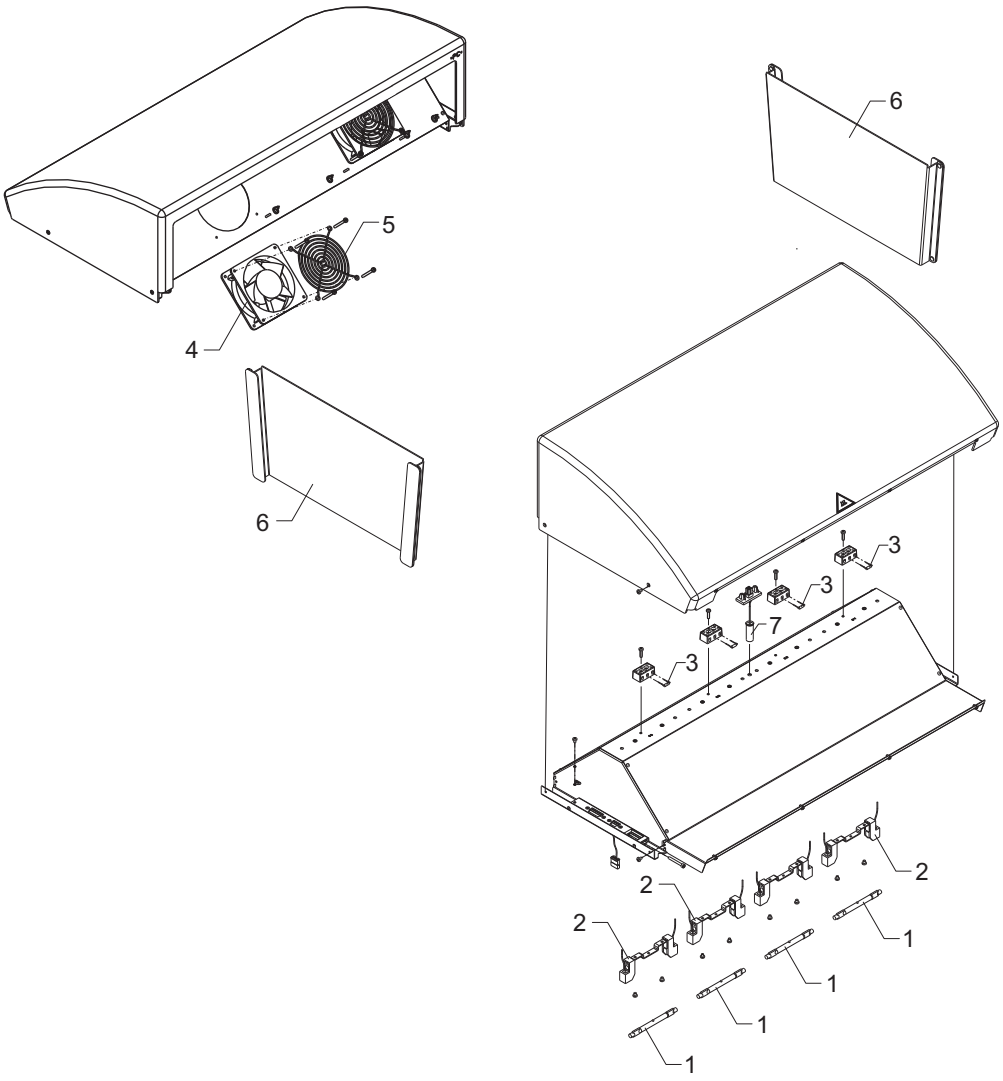

COVERS, DRYER & CURING

T8656

Covers, dryer & curing

Pos. No	Part No	Specification
1	10010359	BULB, HALOGEN, 500W, 240V
2	10010361	SOCKET, HALOGENLAMP
3	10012598	FUSE, THERMAL, 184C
4	26054	FAN, SUNON
5	10019245	GUARD, METAL, FAN, 120 x 120
6	10052062	SIDECOVER
6	10066215	SIDECOVER
7	10053094	TEMPERATURE, SENSOR, CURRING-UNIT
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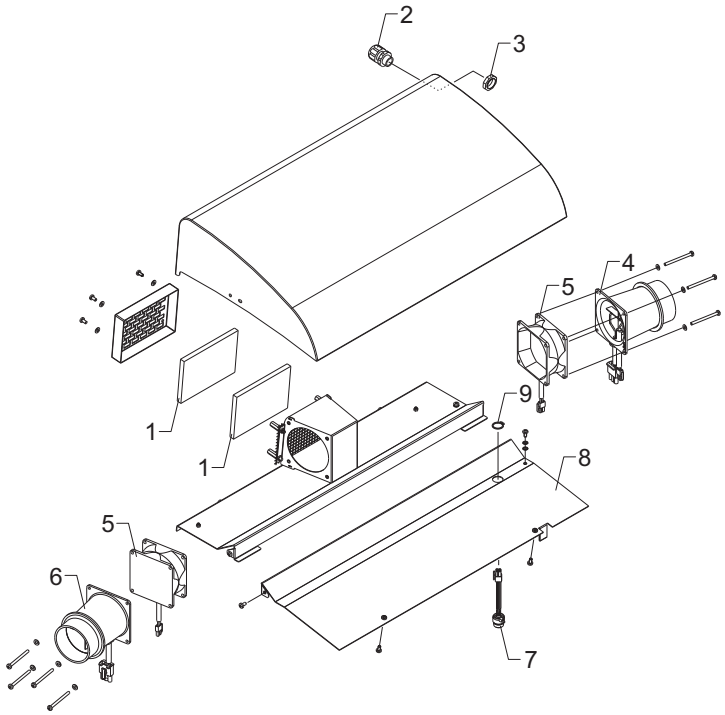

INK DRYER

T8659

Ink dryer

Pos. No	Part No	Specification
1	10043574	FILTER, INK-DRYER, VILEDON P15/150S
2	5181	BUSHING, CABLE PG 11
3	5180	NUT, PG11
4	10018632	HEAT, TEMP, INK-DRYER
5	10018221	BLOWER, INK-DRYER
6	10018289	HEAT, INK-DRYER
7	10054414	SENSOR, INK-DRYER
8	10042736	BASE, INK-DRYER
9	35698	CIRCLIP, D16 x 1, A2
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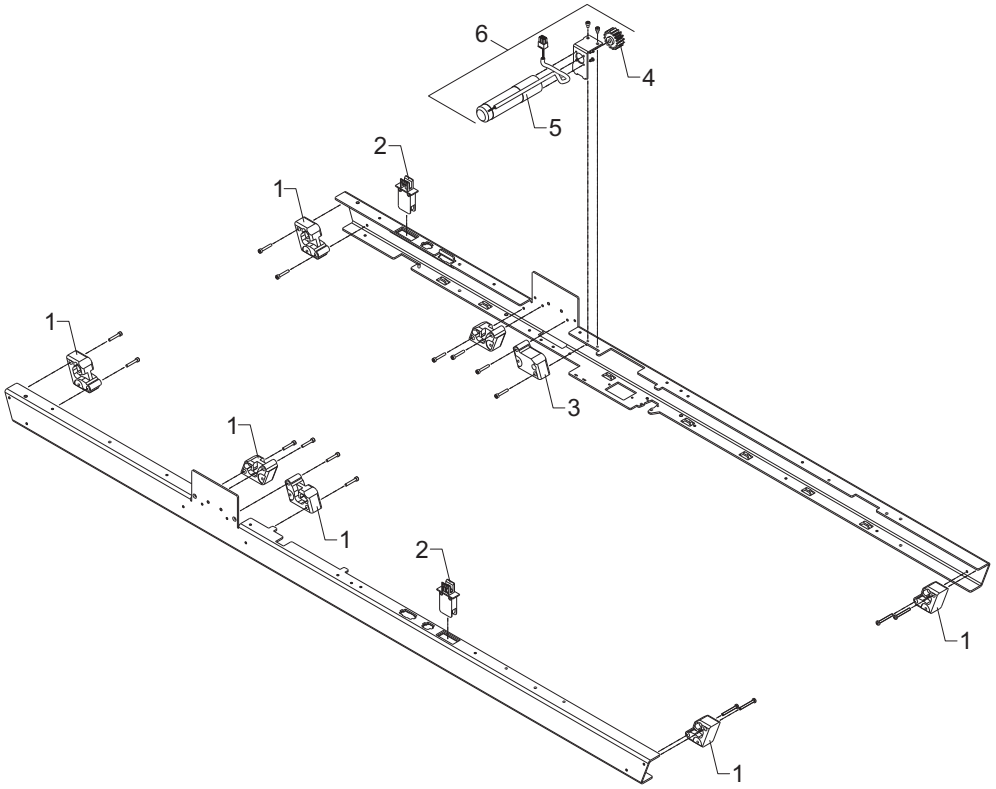

SIDE MEMBERS

T8551

Side members

Pos. No	Part No	Specification
1	10010560	BLOCK, BEARING, GEAR
2	16864	SWITCH, LID, 2 CONT.
3	10024329	BLOCK, BEARING, GEAR
4	10034526	GEAR, Z16, M2
5	10054787	MOTOR, DUNKER
6	10054788	MOTOR, DRIVE, WITH GEAR
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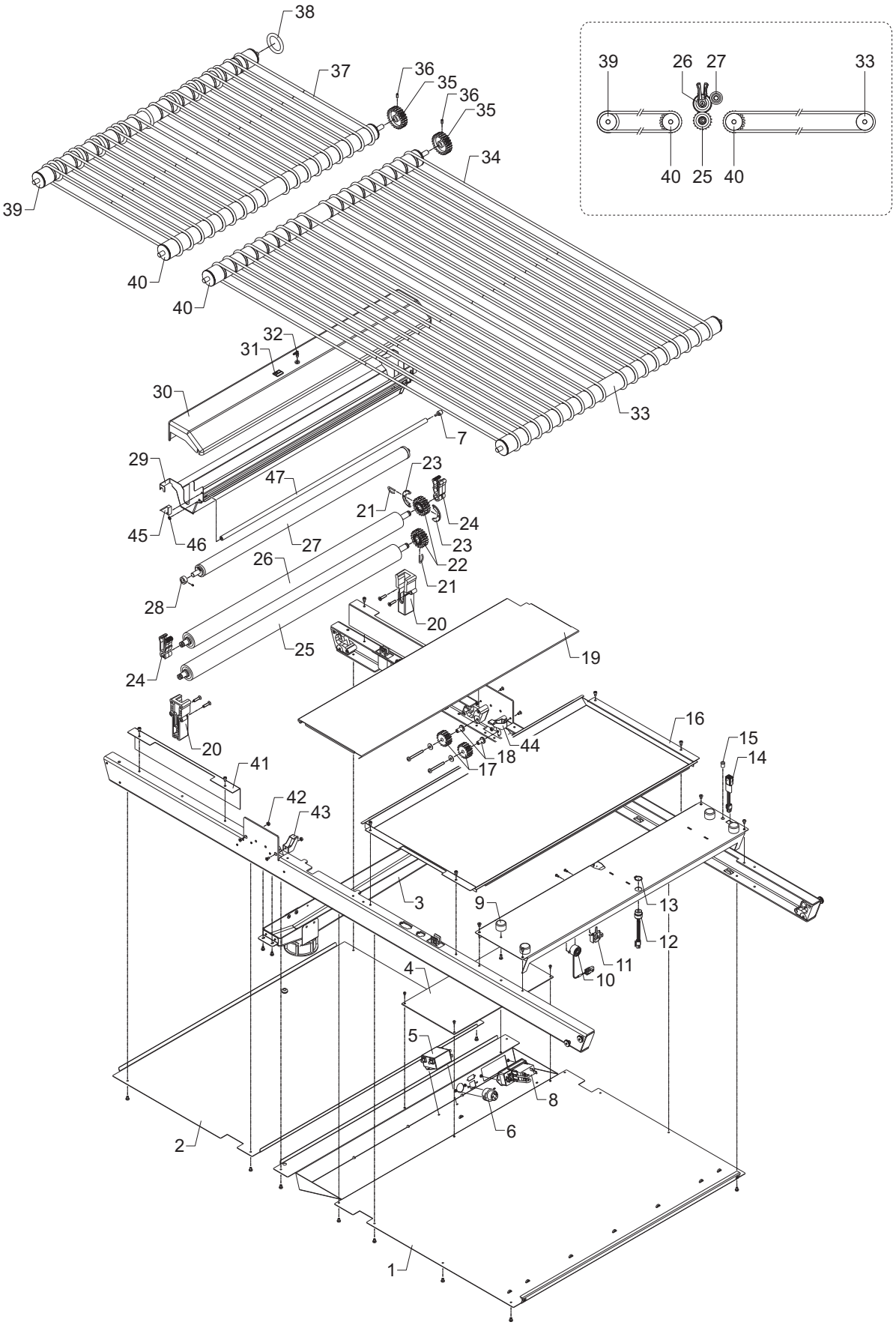
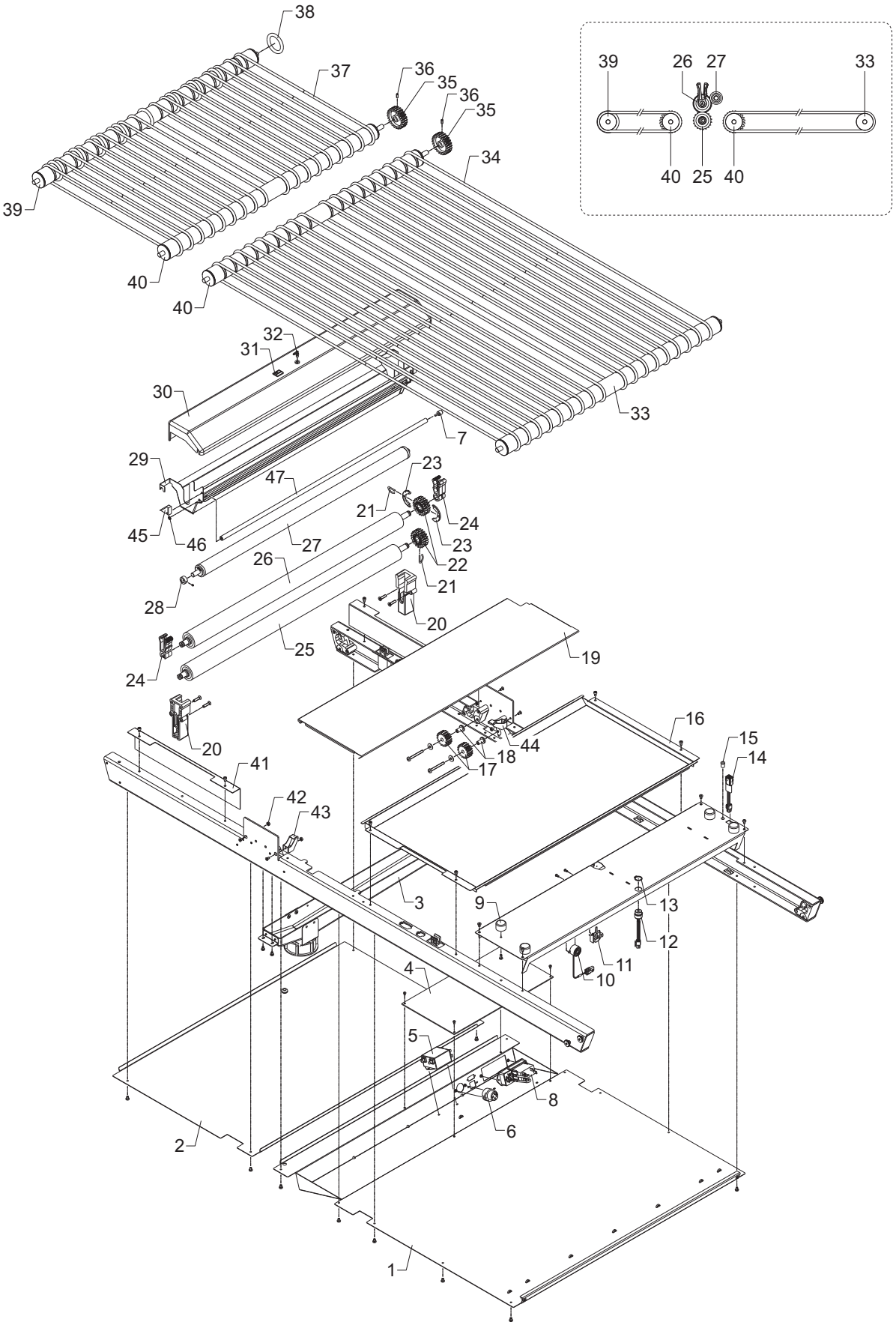


FINISHING UNIT

T8552

Finishing unit

Pos. No	Part No	Specification
1	10053096	COVER, BOTTOM, FRONT
2	10010883	COVER, BOTTOM, BACK
3	10010945	TRAY, GUM
4	10054423	COVER, POWER, ENTRY
5	10053884	FILTER, EMC, 1-PHASE, 16A
6	26364	PLUG, FEMALE, 4-POL.
7	10059559	SHAFT, GUM, SHORT
8	10053883	SWITCH, LINE, 16A-FUSED
9	54381	PIN, GUIDE, TABLE, FEED
10	10012692	BUZZER
11	16787	SWITCH, ASSY
12	10054414	SENSOR, INK-DRYER/FU
13	35698	CIRCLIP, D16 x 1, A2
14	10012622	SELECTOR, PROGRAM
15	10012621	LED, CONTROL
16	10010504	REFLECTOR, BOTTOM
17	10017962	GEAR, ¥6, Z16, M2
18	10017903	BUSHING, BEARING
19	10012449	PLATE, AIRFLOW, COOLING ZONE
20	10011013	BEARING, ROLLER, WHITE, 13 KG
21	73241	CLIP, R-SHAPE, D2.5 x 20
22	73262	GEAR, Z19, M2, D12
23	74038	GUIDE, PLATE, GEAR
24	43600	BEARING, ROLLER, SNAP, BLACK
25	73942	ROLLER, D40 x 695, EPDM, SHORE 40
26	10005673	ROLLER, EPDM, D40 x 695, SHORE 18
27	10014112	ROLLER, PUR, D29/30, L680, MODIFIED
28	4105	STOPPER, SHAFT, D10/17.5 x 7.5
29	10033688	GUM, TRAY, UPPER
30	10018386	COVER, GUM



FINISHING UNIT

T8552

Finishing unit

Pos. No	Part No	Specification
31	16658	HOLDER, CABLE
32	10036887	FITTING, ELBOW, M5 x D3
33	10010571	ROLLER, DRIVEN, FINISHING UNIT
34	10043579	BELT, CONVEYOR, MEDIUM, OPEN
35	10025228	GEAR, Z24, M2
36	5019	SCREW, 4 x 10 MM
37	10033525	BELT, CONVEYOR, SHORT
38	10034139	O-RING, D38 x 7, HA1470, EPDM
39	10035152	ROLLER, DRIVEN, FINISHING UNIT, EXIT
40	10012104	ROLLER, DRIVING
41	10020189	BRACKET, DRIER
42	10034019	DIN 546, M4, NUT, SLOTTED
43	10034314	BRACKET, SUPPORT, GUM TRAY, LEFT
44	10034313	BRACKET, SUPPORT, GUM TRAY, RIGHT
45	10032080	BEARING, GUM SECTION
46	10059561	BEARING, GUM
47	10059558	SHAFT, GUM, LONG
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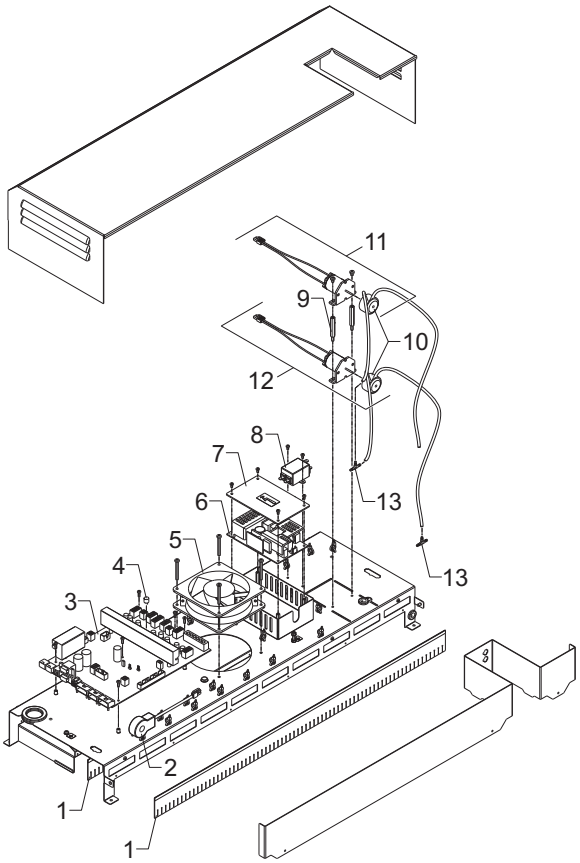

ELBOX, COOLING ZONE

T8550

Elbox, cooling zone

Pos. No	Part No	Specification
1	10017859	BARRIER, AIR, COOLING ZONE
2	10017862	TRANSFORMER, CURRENT
3	10056069	PCB, PCU **(Note: Without software)**
4	10011284	FUSE, 1AT, 5.08MM, VDE
5	26054	FAN, SUNON
6	10051945	PSU, AC>DC, 230-24, 125W, OPEN
7	10053159	SHIELD, PLASTIC
8	10053796	FILTER, EMC, 1-PHASE, 2A
9	25452	SPACER, M4 x 8 + 40
10	10014349	CASSETTE, PUMP
11	10039880	PUMP, WATER, K2, X18
12	10039879	PUMP, GUM, K1, X20
13	10038867	FITTING, TEE, HOSE, 3 x 3 x 3, NORMA TS3
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Cross reference list

Epson Part No	G&J Part No	Specification
F18700	10043172	PRINTHEAD, EPSON STYLUS 4880
1419222	10043173	DAMPER, EPSON STYLUS 4880
1407807	10043174	WIPER BLADE, EPSON STYLUS 4880
1249365	10043175	TUBE, SUPPLY, INK, MB
1249361	10043176	TUBE, SUPPLY, INK, M
1270335	10043177	POROUS PAD, BOX, FL, UPPER
1264516	10043178	JOINT, BOX, FLUSHING
1408199	10043179	PUMP CAP ASSY. ELS, ASP
1408200	10043180	BOX ASSY, FLUSHING BOX
1402073	10043558	POUROUS PAD ASSY. ,INK EJECT
1056164	10043559	O-RING, CONNECTOR M7
1235237	10043560	JOINT, 3
1249356	10043561	JOINT, 3L
1432011	10033562	HOLDER, ASSY., IC, LEFT, CA00, ESL ASP
1400023	10043563	CR C SUPPORT
2071647	10043564	CONNECTOR, CARTRIDGE, A
1219660	10043565	CONNECTOR, CARTRIDGE, A
1401456	10043566	CUTTER, CAP
1294672	10043567	HEAD REPLACEMENT SUPPORT
1219738	10061629	SCALE, CR

Appendix A: Electrical diagrams

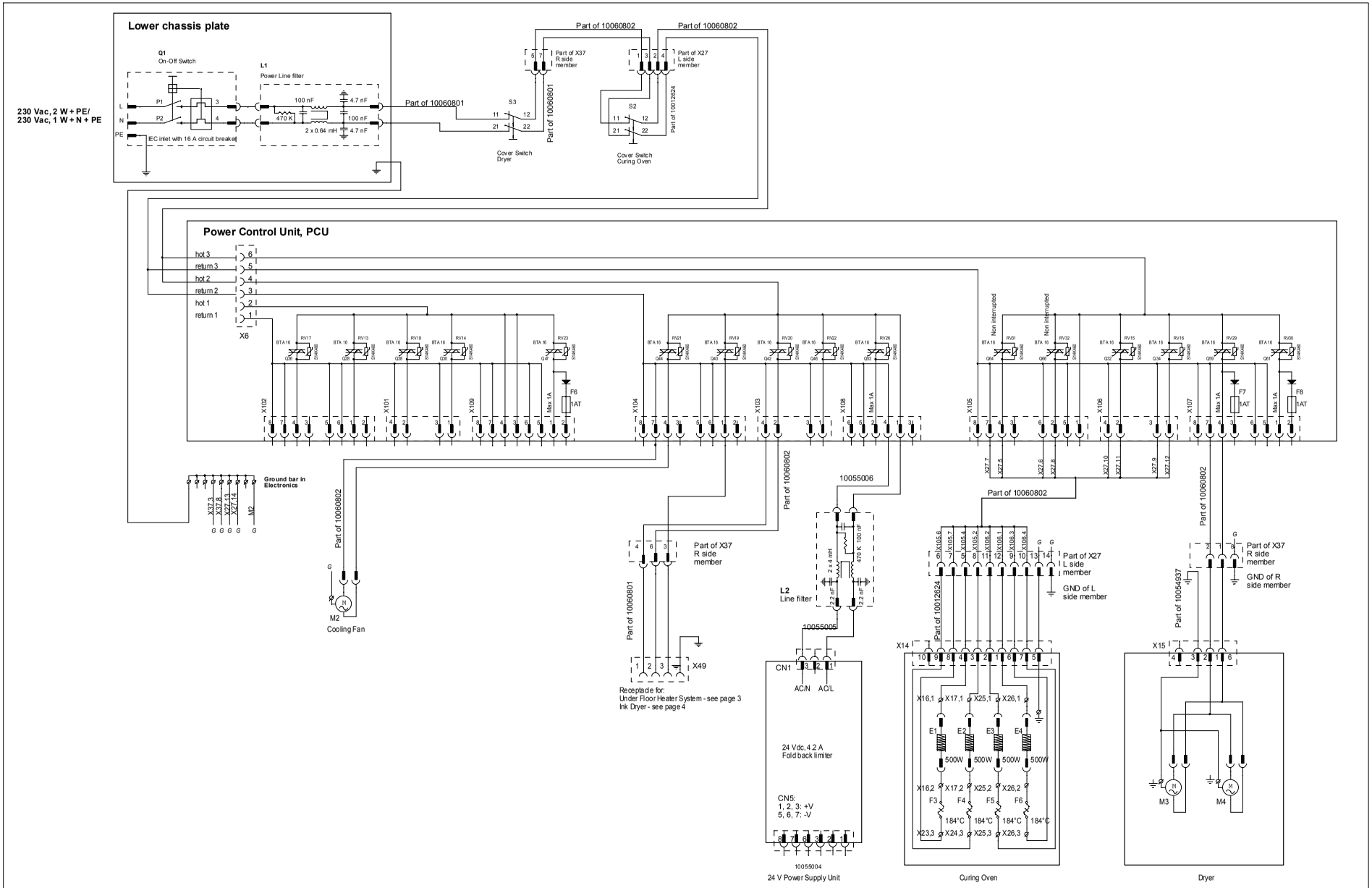
This chapter includes all electrical diagrams for the PlateWriter 2000.

The diagrams (4 pages) cover:

- Page 1 of 4:
  Main power distribution
  Main switch and primary voltage
- Page 2 of 4:
  Low voltage wiring
  Sensors, switches, LEDs and motors
- Page 3 of 4:
  Printer plane
  Wiring schematic
- Page 4 of 4:
  Optional ink dryer
  Wiring schematic

Main power distribution

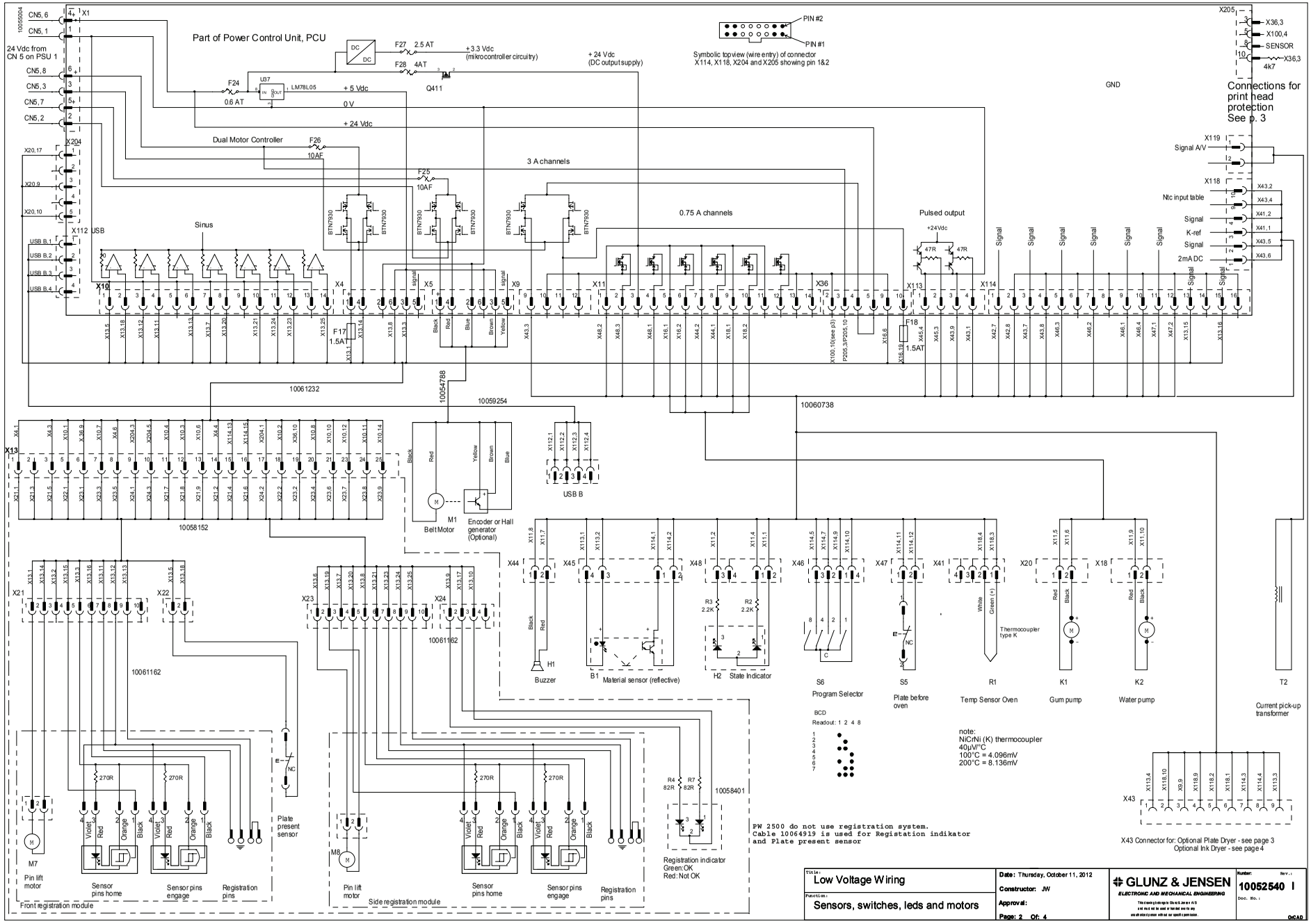
Main switch and primary voltage



Title: Main Power Distribution	Date: Tuesday, August 28, 2012	GLUNZ & JENSEN ELECTRONIC AND MECHANICAL ENGINEERING	Number 10052540 Rev.: I
Function: Main Switch and Primary Voltage	Constructor: JW		Doc. No.:
	Approval:		
	Page: 1 Of: 4		OrCAD

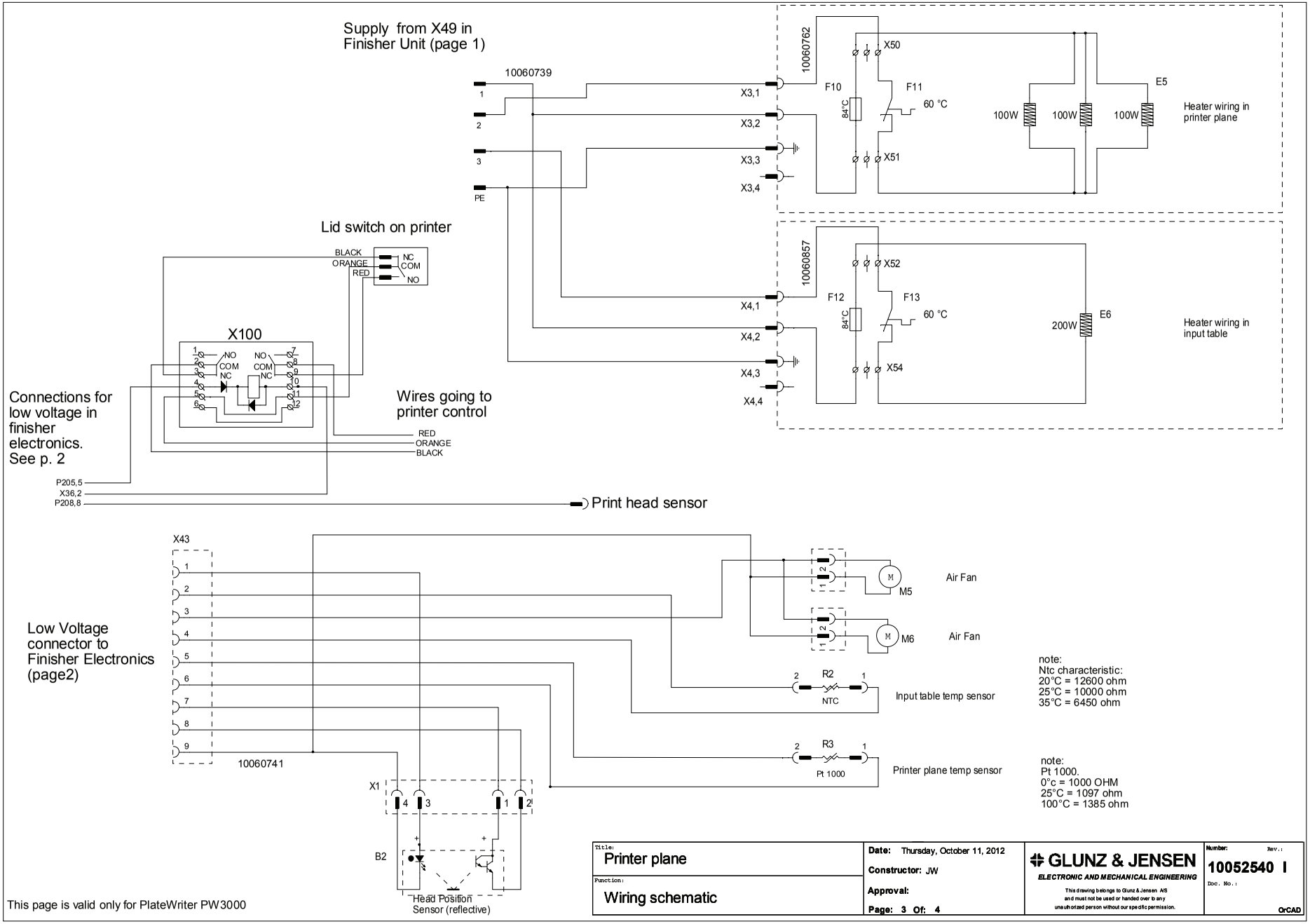
Low voltage wiring

Sensors, switches, LEDs and motors


Part of Power Control Unit, PCU
24 Vdc from CN 5 on PSU 1
CN5, 6
CN5, 1
CN5, 8
CN5, 3
CN5, 7
CN5, 2
F27 2.5 AT
+3.3 Vdc (mikrocontroller circuitry)
F28 4AT
+ 24 Vdc (DC output supply)
Q411
F24 0.6 AT
U37 LM78L05
+ 5 Vdc
0 V
+ 24 Vdc
PIN #2
PIN #1
Symbolic topview (wire entry) of connector X114, X118, X204 and X205 showing pin 1&2
GND
Connections for print head protection See p. 3
Dual Motor Controller
F26 10AF
F25 10AF
3 A channels
0.75 A channels
Pulsed output
+24Vdc
47R
Sinus
X112 USB
USB B.1
USB B.2
USB B.3
USB B.4
F17 1.5AT
F18 1.5AT
Signal A/V
Ntc input table
Signal
K-ref
2mA DC
10061232
10054788
10059254
10060738
10058152
M1 Belt Motor
Encoder or Hall generator (Optional)
USB B
H1 Buzzer
B1 Material sensor (reflective)
H2 State Indicator
S6 Program Selector
S5 Plate before oven
R1 Temp Sensor Oven
K1 Gum pump
K2 Water pump
T2 Current pick-up transformer
Thermocoupler type K
BCD Readout: 1 2 4 8
note: NiCrNi (K) thermocoupler 40µV/°C 100°C = 4.096mV 200°C = 8.136mV
10061162
M7 Pin lift motor
Sensor pins home
Sensor pins engage
Registration pins
Plate present sensor
Front registration module
M8 Pin lift motor
Side registration module
10058401
Registration indicator Green: OK Red: Not OK
PW 2500 do not use registration system.
Cable 10064919 is used for Registation indikator and Plate present sensor
X43 Connector for: Optional Plate Dryer - see page 3
Optional Ink Dryer - see page 4
Title: Low Voltage Wiring
Function: Sensors, switches, leds and motors
Date: Thursday, October 11, 2012
Constructor: JW
Approval:
Page: 2 Of: 4
GLUNZ & JENSEN
ELECTRONIC AND MECHANICAL ENGINEERING
Number: 10052540 I
Doc. No.:
OrCAD

Printer plane

Wiring schematic



This page is valid only for PlateWriter PW3000

Title: Printer plane Function: Wiring schematic	Date: Thursday, October 11, 2012 Constructor: JW Approval: Page: 3 Of: 4	GLUNZ & JENSEN ELECTRONIC AND MECHANICAL ENGINEERING	Number: 10052540 I Rev.: Doc. No.:

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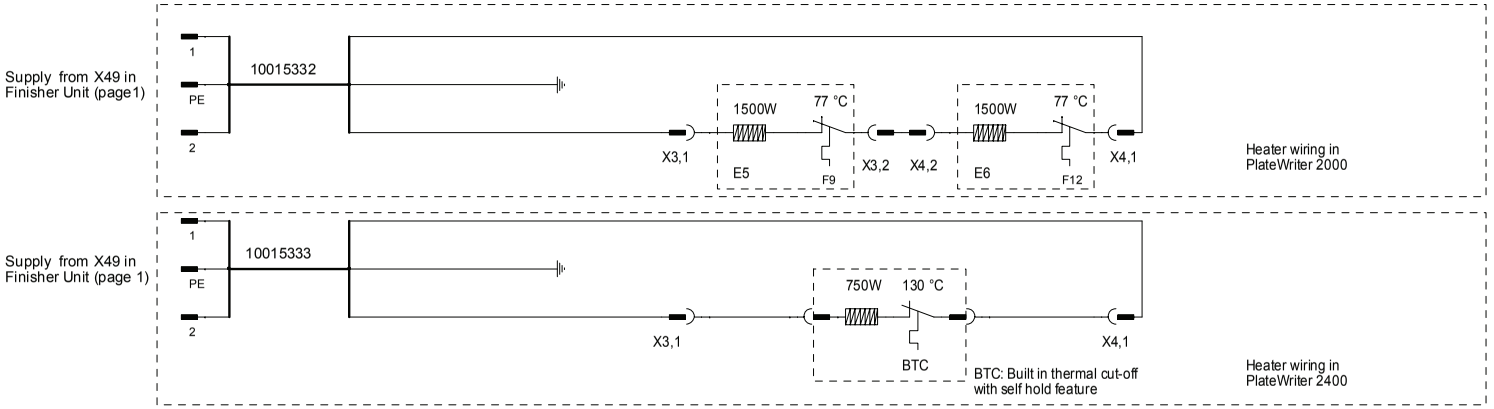
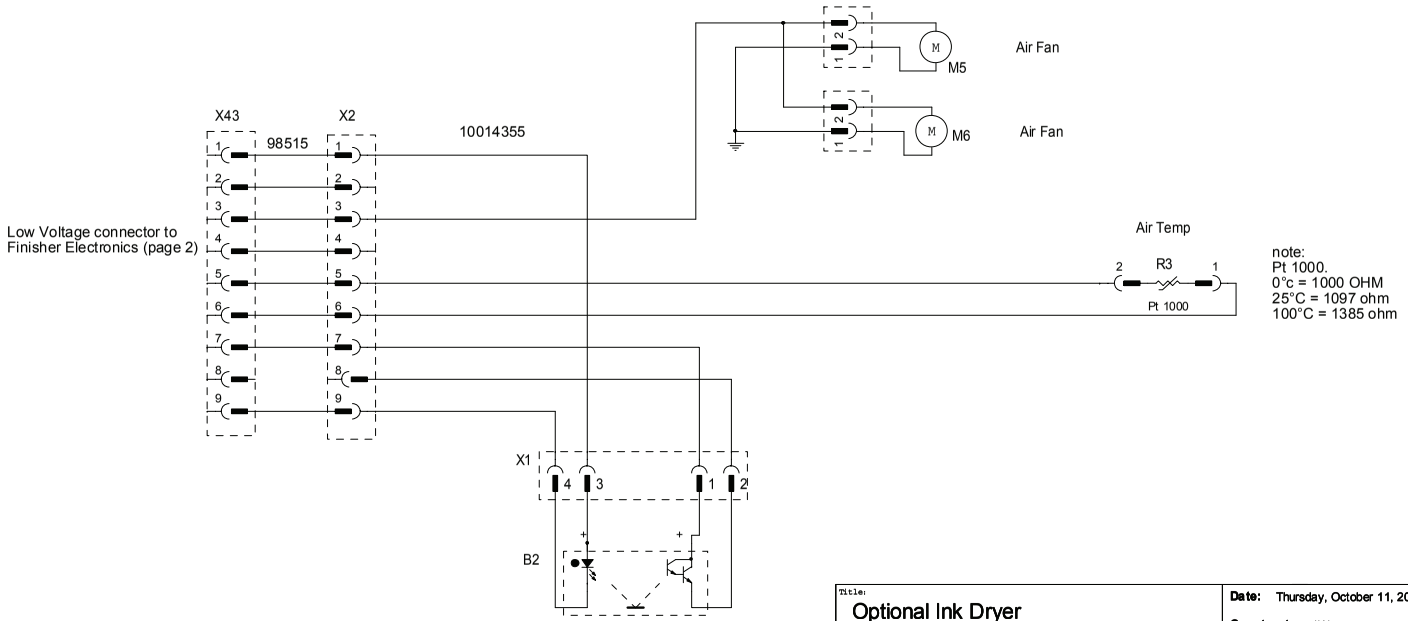
Optional ink dryer

Wiring schematic





Title: Optional Ink Dryer Function: Wiring schematic	Date: Thursday, October 11, 2012 Constructor: JW Approval: Page: 4 Of: 4	GLUNZ & JENSEN ELECTRONIC AND MECHANICAL ENGINEERING	Number: 10052540 I Rev.: Doc. No.: OrCAD

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