Kodak

ThermoFlex Narrow and Mid II Hybrid
Platesetter

Safety Precautions for Operators
English

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Introduction

Read this document carefully before operating or maintaining the Kodak® ThermoFlex® Narrow Hybrid or Mid II Hybrid platesetter.

Note: Unless otherwise specified, ThermoFlex Hybrid in this document refers to all ThermoFlex Narrow Hybrid and ThermoFlex Mid II Hybrid platesetters, including those with the magnetic drum or offset option.

The ThermoFlex Hybrid platesetter is a Class 1 laser product, according to International Safety Standard IEC825-1 and USA regulation 21 CFR 1040. This implies that the operator and service engineer cannot access hazardous laser radiation, providing that the operator and service safety precautions are followed.

The platesetter's lasers, mechanical parts movement, and electrical power constitute the source of hazards to the operator and service personnel.

However, extensive means were taken in the design and manufacture of the platesetter to reduce the hazards.

Carefully follow the instructions in this document to ensure your safety and the safety of others when operating or maintaining the platesetter.



WARNING: The laser beam and radiation are hazardous, but invisible to the eye.

Symbols Used in This Guide



DANGER: This indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.



WARNING: This indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.



CAUTION: This indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. This may also alert you to unsafe practices or potential property-damage-only accidents.

Note: A note provides additional information that you may need to consider.

Note: The front of the platesetter is the side from which you load and unload the media.



Figure 1: ThermoFlex Narrow Hybrid platesetter front view



Figure 2: Mid II Hybrid front view

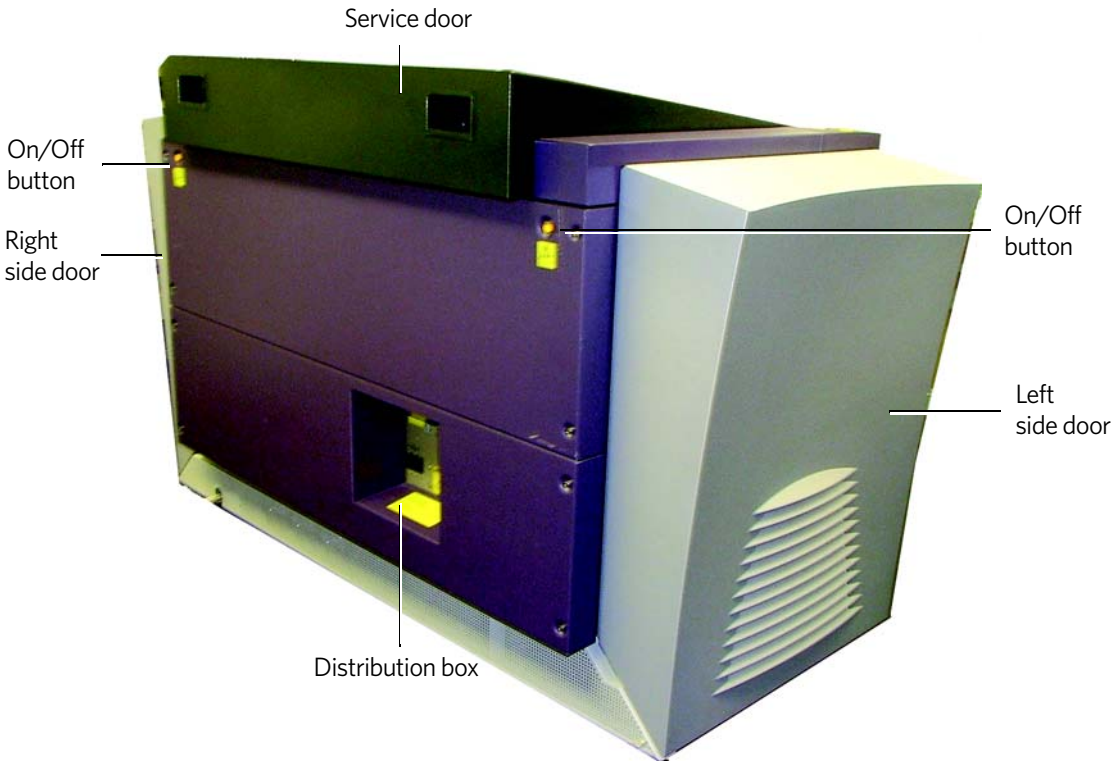


Figure 3: Mid II Hybrid rear view

Laser Safety at a Glance: Avoiding Exposure Hazards

WARNING: **The laser beam and radiation are hazardous, but invisible to the eye.**

- Keep all external doors and internal protective barriers of the platesetter complete, unharmed, and intact.
- Never defeat the laser or any other interlock switch.
- Never leave any object between the laser head and the drum.
- Do not open or remove any internal barriers.
- Do not use any tools.
- Do not operate the platesetter if you have any doubt about whether the instructions in the previous points were followed. Contact your service representative.

Power and Electrical Elements and Safety

Installation Safety Precautions



WARNING: Only qualified service personnel are allowed to install or to service the ThermoFlex Hybrid platesetters.

These technicians are trained in the proper procedures for working with and adjusting the laser system, and working with the mechanical, cooling, and electrical systems of the platesetter.



WARNING: Do not connect the platesetter to the power supply before the platesetter is installed by qualified service personnel.

Electrical Connections

Electrification Hazard

The electrical circuits are located inside protective electrical enclosures that require a tool to open. Electricity is conducted out of these enclosures through singly-insulated wires. These wires are contained inside cables.



DANGER: Do not attempt to open or access protective electrical enclosures. Do not use any tool on the protective electrical enclosures.



DANGER: Do not touch singly-insulated wires.



WARNING: The electrical hazards are *not* removed by the interlock system.



WARNING: Do not change the power supply installed by the service engineer, the electric wiring, or the pneumatic tubes.

ThermoFlex Hybrid Platesetter Connections

WARNING: A certified electrician should perform all power connections, including the connection of the transformer supplied by Kodak and connections inside this transformer.

Two configurations are available for the ThermoFlex Narrow Hybrid platesetter:

- **60 Hz power output:** Line voltage must be 208 V AC (±6%) 60 Hz 1.5%
- **50 Hz power output:** Line voltage must be 200-240 V AC 50 Hz 1.5%

Two configurations are available for the ThermoFlex Mid II Hybrid platesetter:

- **60 Hz power output:** Line voltage must be 3 x 120 V AC (±6%) 60 Hz 1.5%
- **50 Hz power output:** Line voltage must be 3 x 200-240 V AC 50 Hz 1.5%

  Note: To transform the voltage to 3 x 120 V AC, a transformer (supplied by Kodak) is added to the configuration.

Power Cord Plug

The plug on the power cord of the ThermoFlex Hybrid output device is:

- **Narrow**: 2-pole, 3-wire, 250 V, 32 A, 6 o'clock (6 o'clock orientation of the ground connection) plug
- **Mid II**: NEMA 3-pole + N + PE, 5-wire, 250 V, 30 A plug (supplied with the device)

Debris Removal Cabinet Power

For the Universal Debris Removal Cabinet (UDRC) electrical requirements, see the *UDRC Site Preparation and Requirements* document (725-00089A).

Disconnecting From Main Power Supply

The platesetter is equipped with a main power circuit breaker. It is located on the distribution box on the lower-front panel of the Narrow Hybrid platesetter (see Figure 4 on page 6) or the lower-rear panel of the Mid II Hybrid platesetter (see Figure 5 on page 7). Two identical (yellow) On/Off buttons are located on both sides of the front panel of the Narrow Hybrid platesetter or the upper-rear panel of the Mid II Hybrid platesetter.



WARNING: In case of emergency in which you must turn off the platesetter, perform one of the following actions:

- Set the main power circuit breaker to "**0**".
- Unplug the main power cable from the main power supply outlet.



WARNING: You can totally disconnect from the main power supply only by deactivating the main power circuit breaker (set to "0"), or by unplugging the main power cable from the main power supply outlet.

Table 1: Circuit breakers and their locations

Description	Location
Main power circuit breaker	Distribution box
On/Off buttons	• Narrow Hybrid: Front panel • Mid II Hybrid: Upper-rear panel
Drum vacuum power circuit breaker	Distribution box
The following three circuit breakers are for service use only:	
Drum motor power circuit breaker	Distribution box
Laser box (L-box) power circuit breaker	L-box cover (inside the platesetter)
Electronics box (E-box) power circuit breaker	E-box rear side (inside the platesetter)

Note: The front of either ThermoFlex platesetter is the side where plates are loaded and unloaded. The rear of the ThermoFlex Narrow Hybrid platesetter is the side that usually rests against a wall.

Special circuit breakers for the drum motor power and drum vacuum power are located near the main power circuit breaker. Additional circuit breakers for the L-box and E-box are located on internally on their respective box.



Figure 4: Narrow Hybrid front view, showing circuit breakers and On/Off buttons

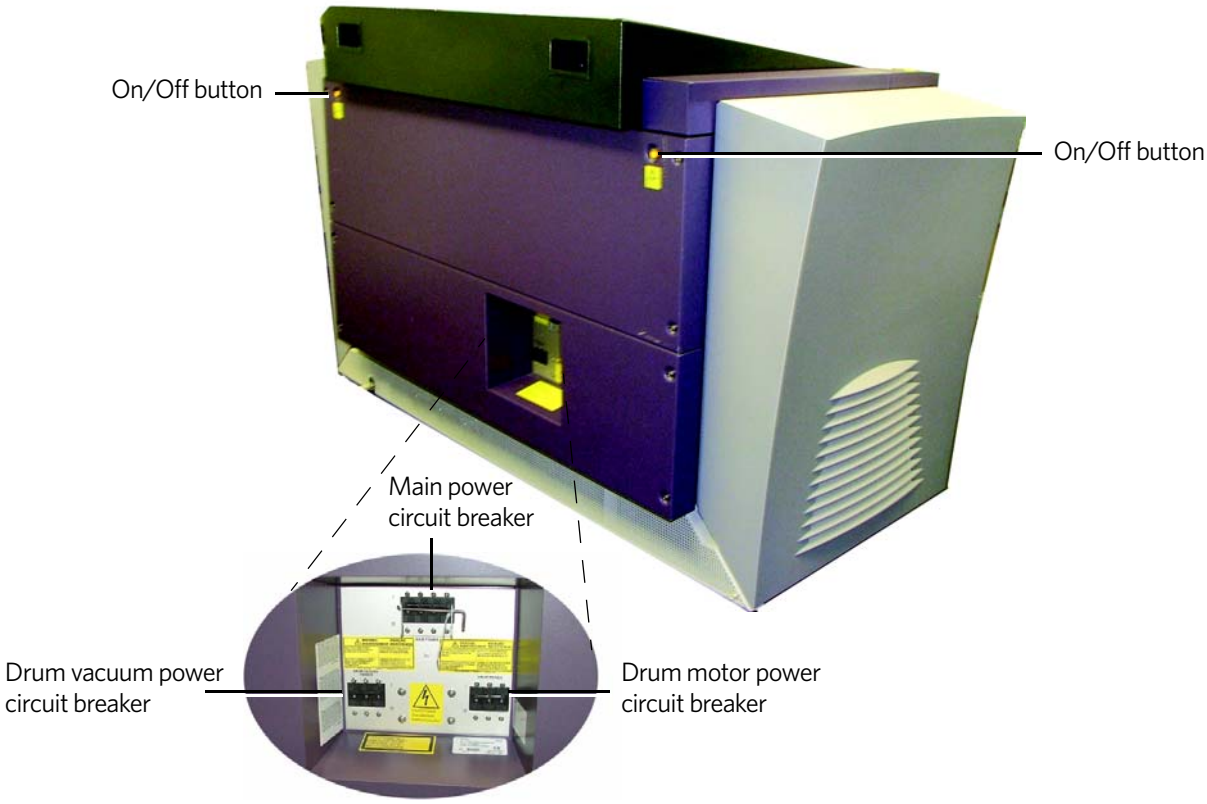


Figure 5: Mid II Hybrid rear view, showing circuit breakers and On/Off buttons

When the platesetter is off, use the metal bar near the main switch on the distribution box to prevent you or others from accidentally switching the platesetter on.

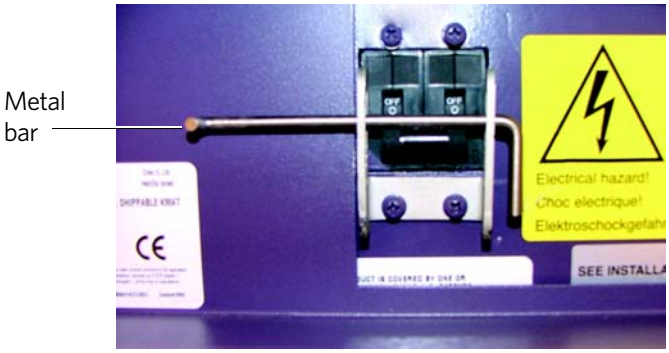


Figure 6: Metal bar used to keep the main power switch off



Figure 7: L-box circuit breaker



Figure 8: E-box switch

Lithium Battery

The platesetter contains a lithium battery. You cannot replace the battery; only qualified service personnel are allowed to replace the battery.

WARNING: There is danger of explosion if the battery is incorrectly replaced.

Laser Elements

The following platesetter elements conduct the laser energy:

- Laser box
- Optical fibers
- Laser head

The following means provide protection from the laser energy:

- Platesetter enclosures
- Safety interlocks
- Warning labels



WARNING: Use of controls or adjustments, or performance of procedures other than those specified in this document may result in hazardous radiation exposure.

The platesetter is equipped with a *highly hazardous laser system* that exposes the media. However, the platesetter as a whole, is a *class 1 laser product*, according to International Safety Standard IEC825-1 and USA regulation 21 CFR 1040. This implies that the operator and service engineer cannot access hazardous laser radiation, providing that the operator and service safety precautions are followed.



WARNING: The laser beam and radiation of the platesetter are invisible and are hazardous to the eyes and skin. Even brief exposure of the eyes to the laser radiation or beam, or its reflections from shiny or matte objects may cause permanent degradation or permanent loss of eyesight. In the presence of flammable material, the laser beam is also a fire hazard.



WARNING: Whenever in doubt, do not operate the platesetter until it is checked and approved for operation by an qualified service engineer.



WARNING: If you must enter the room where the platesetter is located when the platesetter is on, and you suspect that any of the following precautions were violated, then you must disconnect the power supply to the platesetter before entering the room.

Laser Box

The laser diodes are located in the laser box that is located behind the side door of the platesetter. The platesetter must never be activated when the laser box is not in its proper location, with the laser box door closed and properly fastened, and no optical fibers extending from its enclosure.



WARNING: You must not, under any circumstances, open the laser box.



WARNING: After performing any service activity and before switching on the platesetter, the service engineer must check and ensure that no optical fiber extends from the laser box or is damaged.

Optical Fibers

Laser energy is generated in the laser diodes that are located in the laser box and is conducted to the laser head through optical fibers. Protective tubing (a clear plastic coil inside a black plastic coil) covers the fiber bundle from the laser box through the machine to the laser head.



WARNING: You must not, under any circumstances, move, pull, or handle the optical fibers or their protective tubing.



DANGER: If the platesetter is on and an optical fiber extends from the enclosure, or if a fiber is damaged inside the platesetter, or even inside the plastic tubing, and even when the doors are closed, invisible laser radiation of up to a one watt at a wavelength of from 810 to 860 nanometers may be present. Even brief exposure of the eye to this radiation or its reflection from shiny or matte objects can cause permanent degradation or permanent loss of eyesight.

Laser Head

The optical fibers conduct the laser radiation in the platesetter from the laser box to the plotting laser head.



DANGER: The laser head must never be activated if it is removed from its position on the guide beam. In addition, the laser head must never be activated when it is not in its proper position facing the drum, and with all the internal protective barriers assembled and all the doors closed.



WARNING: Never place any object in the path of the laser beam between the laser head and the drum.



DANGER: Up to several watts of invisible laser radiation at a wavelength of from 810 to 860 nanometers may be present at the output of the laser head. This laser radiation is hazardous to the eyes and skin. Even brief exposure of the eye to this radiation or to its reflection from shiny or matte objects can cause permanent degradation or permanent loss of eyesight.

Platesetter Enclosure

The platesetter enclosure keeps laser radiation within the platesetter. Together with the laser interlock system, the platesetter enclosure is designed to protect anyone in the platesetter vicinity from exposure to the laser radiation. The enclosure includes the external doors and panels, and the internal protective barriers. The internal protective barriers prevent the laser radiation from escaping through the ventilation openings on the side doors or lower panels. This protection depends upon the completeness and correct assembly of the outer enclosure and the internal protective barriers.



DANGER: If the platesetter is on and the platesetter enclosure is damaged or incomplete, invisible laser radiation of up to several tens of watts may be present, even with the external doors closed. This radiation is hazardous to the eyes and skin. Even brief exposure of the eye to this radiation or its reflection from shiny or matte objects can cause permanent degradation or permanent loss of eyesight.



WARNING: Do not , under any circumstances, dismantle any external door or panel, or internal protective barrier from the platesetter.



WARNING: After performing any service activity and before switching on the platesetter, the service engineer must check and ensure that all external and internal enclosures and doors are complete, not broken or cracked, and properly assembled to the platesetter.



WARNING: Do not open any internal doors—for example, the doors to the laser box, distribution box, or electronic box.



WARNING: Do not use tools on the platesetter.

Safety Interlocks



DANGER: You must not, under any circumstances, defeat any interlock switch, or activate the mechanical (motors) interlock defeater.



DANGER: If a door or panel is open and if the interlock switch is defeated, or if the interlock system failed, then severe mechanical hazards and invisible laser radiation of up to several tens of watts may be present. The laser radiation is hazardous to the eyes and skin. Even brief exposure of the eye to this radiation or its reflection from shiny or matte objects can cause permanent degradation or permanent loss of eyesight.

Safety interlocks provide the main protection against the severe laser and mechanical hazards associated with the platesetter, providing that you carefully follow all the safety precautions described in this document.



WARNING: The safety interlock does not disconnect hazardous electrical voltage from parts and wires inside the platesetter. However, these parts cannot be accessed without tools.

The interlock system disconnects power from the laser system, drum motor, and other motors when a door or panel equipped with an interlock switch is open or removed.

Even qualified service personnel are forbidden to defeat the laser interlocks, but are allowed to activate the motors interlock defeater while observing the appropriate safety precautions.

Note: On ThermoFlex Hybrid devices, the drum does not rotate when the motors interlock defeater is activated.

Interlock Functions and Locations

All doors and external panels have laser and motor interlocks that disable the laser system and motors when the door or panel is open.

The following table provides information about the safety measures and controls included in the platesetter. You must not defeat any interlock switch, or use tools on the platesetter.

Table 2: Laser/Motor Interlock Switch Locations

Platesetter Enclosure	Number of Laser/ Motor Interlock Switches	Notes
Narrow Hybrid		
Top door	1	On the left side of the top door is a motors interlock defeat switch.
Front panel	1	
Rear panel	1	
Left door	1	
Right door	1	
Mid II Hybrid		
Loading table	1	The clutch motor is enabled when the loading table is open.
Front panel	2	
Left door	1	
Right door	1	
Service door	2	There is an additional, motors interlock defeat switch.
Upper-rear panel	1	
Lower-rear panel	1	



WARNING: It may take up to two seconds for the laser interlock system to shut off the laser sources. Therefore, when opening a door, do not rush to access inside the platesetter.

Note: The laser interlock system is equipped with a buzzer. If a failure is detected in the operation of the laser interlock system, the buzzer is activated and the laser is shut off. However, not every possible failure can be detected.



WARNING: If the buzzer is activated, shut the platesetter off and do not operate it again until a qualified service engineer has checked it and approved it for operation.

Drum

The ThermoFlex Hybrid platesetter drum revolves inside the platesetter. The plates are loaded and unloaded manually onto the drum. Special safety precautions are implemented on the platesetter in order to prevent rotation of the drum while the operator is loading or unloading media.



WARNING: Opening the ThermoFlex Narrow Hybrid upper door or the ThermoFlex Mid II Hybrid loading panel or service door is initiated from ThermoFlex Controller. This releases the solenoids that lock the door. You can then open the door, but you must first make sure the drum is stationary. If five seconds after the door is unlocked, the drum is still not completely stationary, shut off the machine and call your service engineer.

The drum revolves at up to 500 revolutions per minute. If an object hits the rotating drum, the object may damage the safety system, optical head, or optical fibers, or force the top door to open, or penetrate the platesetter enclosures.



WARNING: Do not leave any loose object, tool, or part inside or on the platesetter enclosure. A loose object inside the enclosure may damage the enclosure or other safety elements of the platesetter and thus create an hazard.



WARNING: Do not, under any circumstances, defeat any interlock switch , or activate the mechanical interlock defeat switch.

Magnetic Drum Option

The magnetic drum has a strong magnetic force that enables plates to stay attached to the revolving drum.



DANGER: If you have a pacemaker, do not operate the ThermoFlex Hybrid platesetter with magnetic drum option.



WARNING: Make sure that no parts or tools become attached to the drum by the magnetic force.



CAUTION: Beware of the strong magnetic field. Remove your wristwatch and any other metal objects before getting close to the drum.

Universal Debris Removal Cabinet

The UDRC, a separate component that is connected to the platesetter, is part of the ThermoFlex Hybrid configuration. The UDRC contains a filtering device that extracts dust, fumes, contaminants, and solvent vapors that accumulate within the platesetter during normal operation and need to be removed.



WARNING: The filtering device has been constructed according to recognized technical safety regulations. Nevertheless, danger to the life of the operator or third parties or damage to property can occur if the filter is not handled properly.



WARNING: Read the *Safety* chapter of the *Universal Debris Removal Cabinet Operator Guide* (731-00103).

Handling Plates

Loading and Unloading Plates

Follow the procedure for loading and unloading plates as described in the Visual Reference Guide (VRG) and the ThermoFlex Help.



CAUTION: The plate material may be irritating. Protect your hands by wearing gloves when loading plates.



CAUTION: Be careful that your fingers do not get caught between the drum and other objects.

The following precaution is specific for ThermoFlex Narrow Hybrid:



CAUTION: On ThermoFlex Narrow Hybrid devices, a spring-loaded mechanism controls the opening of the top door. Make sure your head is not near the door when you open it.

The following precautions are specific for ThermoFlex Mid II Hybrid:



CAUTION: Pressing the Load/Unload buttons causes the drum to rotate slowly. However, the force of rotation is limited by the machine's design.



CAUTION: Beware of sharp plate edges while the drum is rotating.



CAUTION: Do not to put your hand between the loading table and the platesetter frame. The loading table is heavy and can injure your hand. A warning label (part number 374A7B678) is provided.



CAUTION: For convenient and safer access to the front or rear of the platesetter for loading and unloading plates, or removing stuck plates, use the two platforms suppplied with the platesetter. Place the platforms close to the front and rear sides of the platesetter. Make sure that the platform is sturdy.



CAUTION: Do not lean on the loading table; it may cause you to lose your balance.



CAUTION: On ThermoFlex Mid II Hybrid devices, before you open the loading table, verify that no one is at the rear of the device.

Removing Stuck Plates

Special precautions are required when removing a plate that is stuck inside the platesetter.



WARNING: Before removing a plate, disconnect the main electrical power on the distribution box.



WARNING: Before removing a plate, remove objects or clothing that might get caught in the revolving drum or other moving parts, such as ties and jewelry. Roll up long sleeves and gather long hair.

For best results, release the entire plate as one piece; do not attempt to cut the plate.

To access stuck plates:

- ThermoFlex Narrow Hybrid: Open the top door.



WARNING: Do not open any door or panel that requires a tool to open.

- ThermoFlex Mid II Hybrid: Open the service door or the front panel.



CAUTION: On Mid II Hybrid, the loading table is equipped with a piston, do not stand too close to it.



CAUTION: Do not tamper with wires or cables routed inside the platesetter.

Remote Support

To provide remote support, the remote response center can remotely control the platesetter. If an interlock is defeated while the platesetter is operated from a remote location, the service engineer or a Kodak-certified operator on site may be exposed to hazardous motor and/or focus laser radiation. Therefore, it is important to coordinate remote support between the remote response center and the service engineer or Kodak-certified operator.

Although the platesetter can be operated via a remote location under any of the following three conditions, the first method is considered unsafe and is forbidden:

- Doors, panels, or hoods that have no interlocks are open. This is an unsafe method of remotely operating the platesetter, and you must avoid it.



WARNING: It is strictly forbidden to remotely operate the platesetter if any doors, panels, or hoods of the platesetter (or the Magnus™ 400 MCU, including Quantum) that have no interlocks are open.

- All doors, panels, and hoods of the platesetter **(or Magnus 400 MCU, including Quantum)** are closed. This is the safest method of remotely operating the platesetter.
- Doors, panels, and hoods that have interlocks are open and the mechanical interlock is defeated only by the service engineer or by the Kodak-certified operator. This is a potentially unsafe method of remotely operating the platesetter, and it should be employed only when strictly adhering to all information and warnings in the following remote support-related sections:



WARNING: The remote response center must contact the local site by telephone before beginning to operate the platesetter from a remote location.

Interlock Defeat Permissions

	Write laser interlock defeat	**Focus laser interlock defeat**	**Mechanical interlock defeat**
Service engineer	Not allowed	Allowed	Allowed
Kodak-certified operator	Not allowed	Not allowed	Allowed
Operator	Not allowed	Not allowed	Not allowed

Note: ThermoFlex Hybrid platesetters contain only "write" lasers, and do not contain focus lasers.



WARNING: Only a service engineer or a Kodak-certified operator who has undergone specialist training regarding safety interlocks is permitted to defeat the mechanical interlock (by inserting *one* red, rectangular dedicated defeater into the platesetter's mechanical defeater switch).



WARNING: Only a service engineer, located on the site, is allowed to defeat the focus laser interlock, while adhering to service safety instructions.



WARNING: No one is allowed to defeat the write laser interlock.

Activating Remote Control

The response center must request permission from the local site before the platesetter can be remotely operated.
The following request message appears on the local monitor (at the site):

```
Machine Name\User Name is requesting to control your session
remotely. Do you accept the request?
```

The request message has a time-out of 30 seconds. If the service engineer or Kodak-certified operator does not accept the request within 30 seconds, it is automatically canceled.

WARNING: Before accepting a request message to operate the platesetter from a remote location, the service engineer and/or Kodak-certified operator must make sure of the following:

- No person can be potentially exposed to either mechanical or laser hazards.
- Constant telephone contact is maintained between the remote response center and the service engineer or Kodak-certified operator.

WARNING: Never defeat the laser interlock.

Terminating Remote Control

Remote control of the platesetter can be terminated (disconnected) by any of the following methods:

- By pressing an Emergency Stop button (if one exists on the platesetter)
- By removing the red rectangular dedicated defeater from the platesetter's mechanical defeater switch
- By pressing the stop motors button or one of the two On/Off yellow buttons (if either of these exist on the platesetter).
- By turning the main power circuit breaker to off
- Via the remote response center's computer
- Via the local computer by double-clicking the remote support icon on the local desktop and confirming that you want to terminate the session by clicking **Yes**



Offset-Specific Information

Introduction

ThermoFlex Hybrid platesetters with offset option image both offset and flexo plates.

Note: The term "offset plates" refers to aluminum plates.

This section describes the following elements, which are unique to the ThermoFlex Hybrid platesetter with offset option.

- Registration pins
- Registration pins holder (with interlock)
- Side-to-side optical detector
- Laser head position
- Plate loading and unloading roller

Registration Pins

The offset option enables you to image offset plates on a ThermoFlex Hybrid platesetter. You manually load prepunched offset plates onto the drum using registration pins as reference guides.

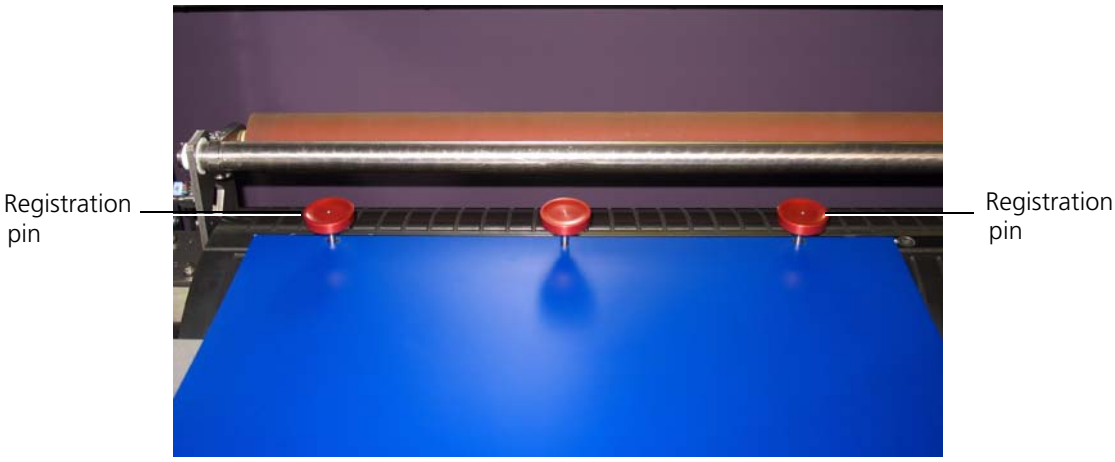


Figure 9: Narrow Hybrid: Plate on drum with three registration pins

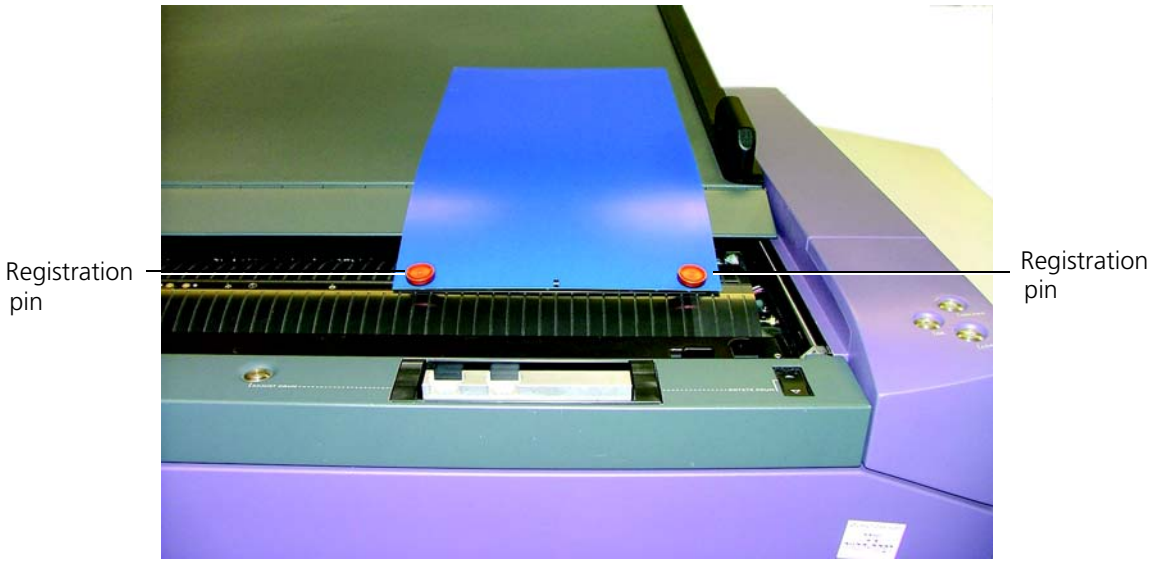


Figure 10: Mid II Hybrid: Plate on drum with two registration pins

After you load the plate, you secure it with tape on the leading and trailing edges, and then return the registration pins to the pin holder.

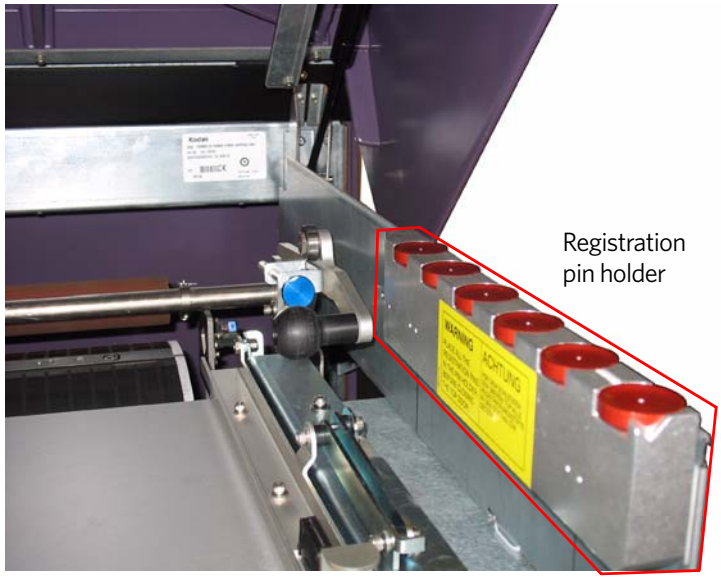


Figure 11: Narrow Hybrid registration pin holder



Figure 12: Mid II Hybrid registration pin holder

Note: The registration pins are available in various shapes (circular, square, and oval), depending on the customer's punch configuration.

When you start the platesetter or open the loading table, all registration pins must be in the pin holder. If any registration pins are missing, the interlock microswitch activates; the motors cannot operate and exposure cannot begin. A message and open interlock indication appear.

WARNING: Never attempt to operate the platesetter if any registration pins are missing from the pin holder. If a pin flies off the rotating drum or collides with the laser head, it can cause laser and/or mechanical hazards.

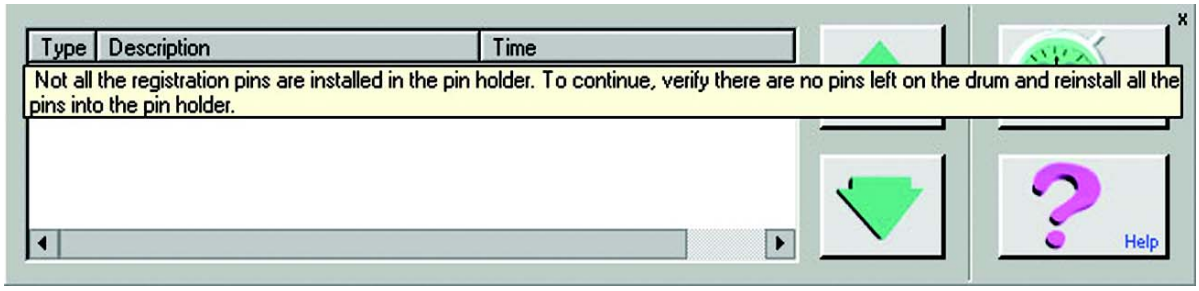


Figure 13: Message reporting that pins are missing from the pin holder

The ThermoFlex Hybrid platesetter with offset option has numerous safety mechanisms to ensure that registration pins will not damage the platesetter and potentially injure the operator. These precautions include:

- The registration pin holder is connected to the mechanical interlock system.
- The registration pin holder is magnetically stabilized so that the platesetter's vibrations will not cause the pins to loosen.
- The side-to-side detector detects whether a pin is in the drum.
- The registration pins are large enough so that if one of them falls into the front of the platesetter (or the rear of the ThermoFlex Mid II Hybrid), the pin cannot become stuck in any opening of less than three centimeters.
- You or your service engineer must retrieve any pin that falls into the platesetter.

  Follow the instructions in the Help or the Visual Reference Guide. After you remove the pin, verify that there is no damage to the platesetter or the pin and return the pin to the pin holder.



WARNING: If a pin falls into the rear of the ThermoFlex Narrow Hybrid, you must call your service engineer to remove the rear panel.

- For your safety, Kodak does not supply spare registration pins.
- The laser head moves to home position upon startup, and when the ThemoFlex Narrow Hybrid top door or the ThermoFlex Mid II Hybrid loading table or service door is opened.

Despite these precautions, before you close the top door or loading table, it is imperative to visually confirm that no registration pin remains in the drum.



WARNING: If you find any damage or suspect any damage to the platesetter or to the registration pin, do not operate the platesetter. Turn off the platesetter and call your service representative.

Side-to-Side Optical Detectors

The side-to-side detectors verify that no registration pins are in the drum before each exposure. If a registration pin is detected, exposure does not begin. A message appears and the platesetter status changes to **Attention**.

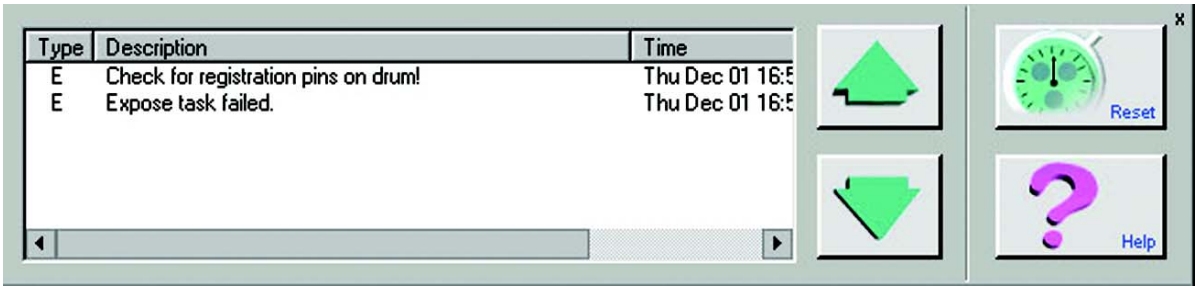


Figure 14: Message reporting that the side-to-side detector found a registration pin on the drum before exposure

Laser Head Position

The ThermoFlex Hybrid platesetter with offset option automatically moves the laser head to home position upon startup and upon opening the ThemoFlex Narrow Hybrid top door or the ThermoFlex Mid II Hybrid loading table or service door. This is to prevent damage to the platesetter as a result of registration pins being left in the drum and colliding with the laser head.

When you open the service door on the ThermoFlex Mid II Hybrid or the top door on the ThermoFlex Narrow Hybrid, the laser head must be in home position. As a precaution, once every day when you open the service door, verify that the laser head is in home position.



Figure 15: Narrow Hybrid laser head in home position (front view of platesetter)

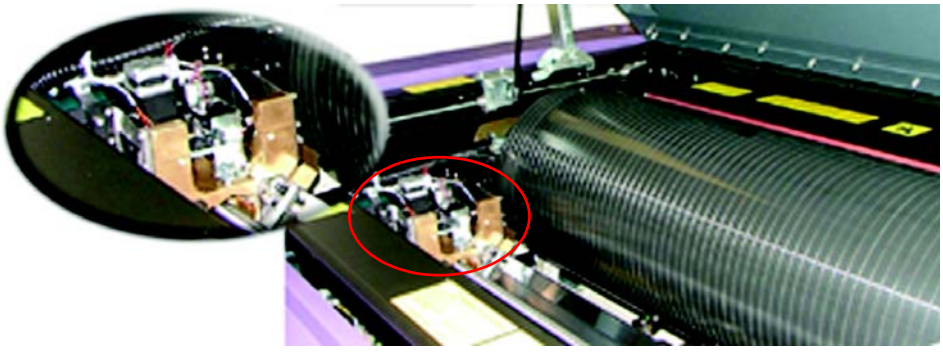


Figure 16: Mid II Hybrid laser head in home position (rear view of platesetter)

To open the Mid II service door to check the position of the laser head:

➢ In the ThermoFlex Controller software, in the **Routine Functions** menu, click **Open Service Door**.



Note: Do not click the **Preventive Maintenance** button in the ThermoFlex Controller software to check the laser head position. The **Preventive Maintenance** button opens the service door, but the laser head moves to the center position.

WARNING: When you open the service door, if the laser head is not in home position, mechanical and potential class 4 laser radiation hazards are present. There is danger to your personal safety and to the platesetter. Do not operate the platesetter. Turn off the platesetter and call your service engineer.

Plate Roller

A plate roller is used to make the plate adhere to the drum. A roller knob operates the lever, and the lever moves the roller onto the drum.



Figure 17: Narrow Hybrid roller knob and lever in default position

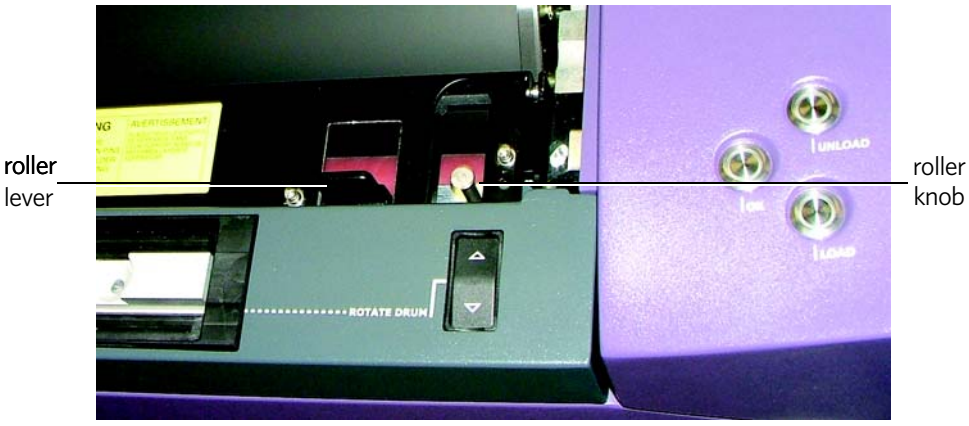


Figure 18: Mid II Hybrid roller knob and roller lever default position

To move the roller onto the drum, pull the roller knob up. The roller lever springs the roller onto the drum.

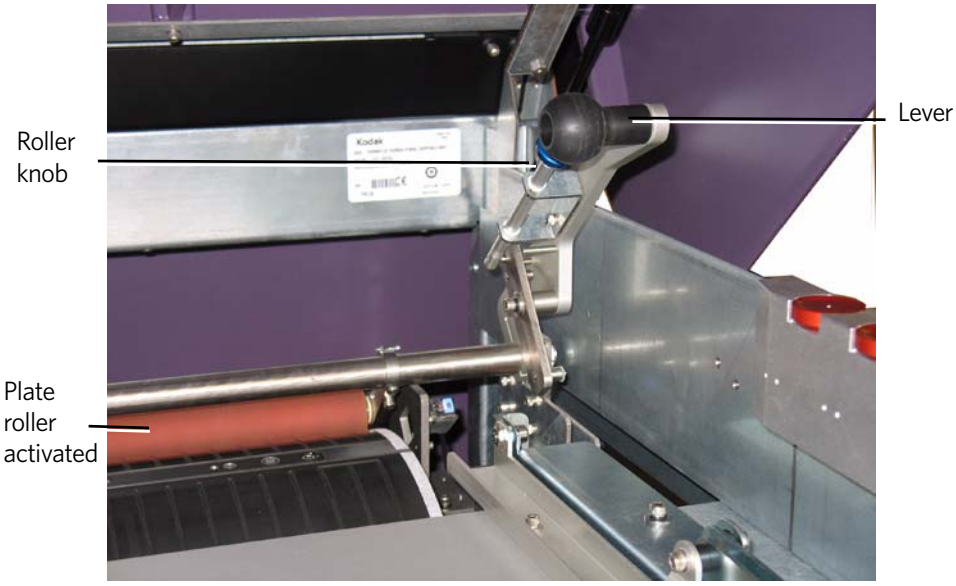


Figure 19: Narrow Hybrid roller knob and roller lever activated (up)



Figure 20: Mid II Hybrid roller knob and roller lever activated (up)

When you close the ThermoFlex Narrow top door or the ThermoFlex Mid II loading table, the lever is moved, which causes the roller to move away from the drum.



WARNING: If you see any damage or suspect any damage to the roller lever or to the screws that secure the roller lever, do not operate the platesetter. Turn off the platesetter and call your service representative.

Summary of Offset-Related Safety Precautions

- When you open the Narrow Hybrid top door or the Mid II Hybrid service door, the laser head must be in home position.
- No registration pins may remain in the drum after you load the plate.
- No registration pins may be missing from the registration pins holder when you operate the platesetter.
- The plate roller lever must be in good condition and the lever screws firmly in place. The roller must move away from the drum as the Narrow Hybrid top door or the Mid II Hybrid loading table is closed.

Warning Labels and Their Locations

WARNING: The warning labels are provided for operator and service personnel safety. Always comply with the warnings.

The following pages show the laser and other warning labels, and their locations on the ThermoFlex Narrow Hybrid and the ThermoFlex Mid II Hybrid.

Make sure that the warning labels are in good condition; notify your service engineer if a label needs to be replaced.

ThermoFlex Hybrid Warning Labels

WARNING: Notify your service engineer if your local language is not provided on the warning labels.



Label 1: 382-00888A



Label 1: 382-00889A



Label 2: 382-00956A



Label 5: 382-00980A



Label 5: 382-00981A



Label 8: 382-00905A



Label 8: 382-00906A



Label 9: 382-00922A



Label 9: 382-00923A



Label 10: 382-00939A



Label 10: 382-00940A



Label 12: 382-01285A



Label 16: 382-01016A



Label 19: 382-01028A



374A7B951 (374A30170)



382-01146A



374A6B678 (Mid II only)



382-01210A (Mid II only)



382-01209A

Magnetic Drum Option Label

The following label is unique to the ThermoFlex Hybrid With Magnetic Drum Option. It indicates that a magnetic field exists and that you must observe the relevant precautions.



382-00744A

Offset Option Labels

The following three labels are unique to the ThermoFlex Hybrid With Offset Option.

Note: The English and French versions of the labels are shown next as examples, but labels are provided in the language of the country in which the platesetter is installed.



382-01513A



382-01514A



382-01515A

ThermoFlex Narrow Hybrid Warning Label Locations

See the following figures for locations of warning labels on the ThermoFlex Narrow Hybrid platesetter.

Make sure that all warning labels are in good condition; renew warning labels if needed.



Figure 21: Narrow Hybrid with top door, front panel, and side doors closed

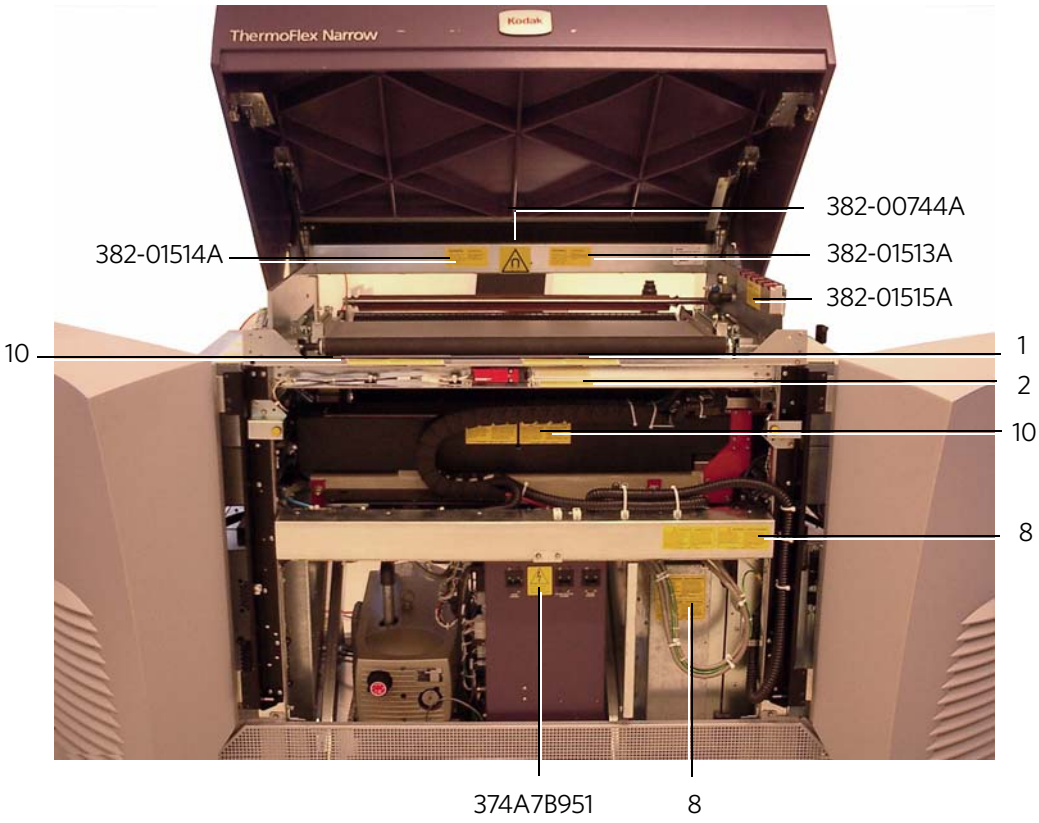


Figure 22: Narrow Hybrid with Magnetic Drum and Offset options, upper door, front panel, and side doors open,

Note: Figure 22 shows the platesetter with magnetic drum option and offset option labels.

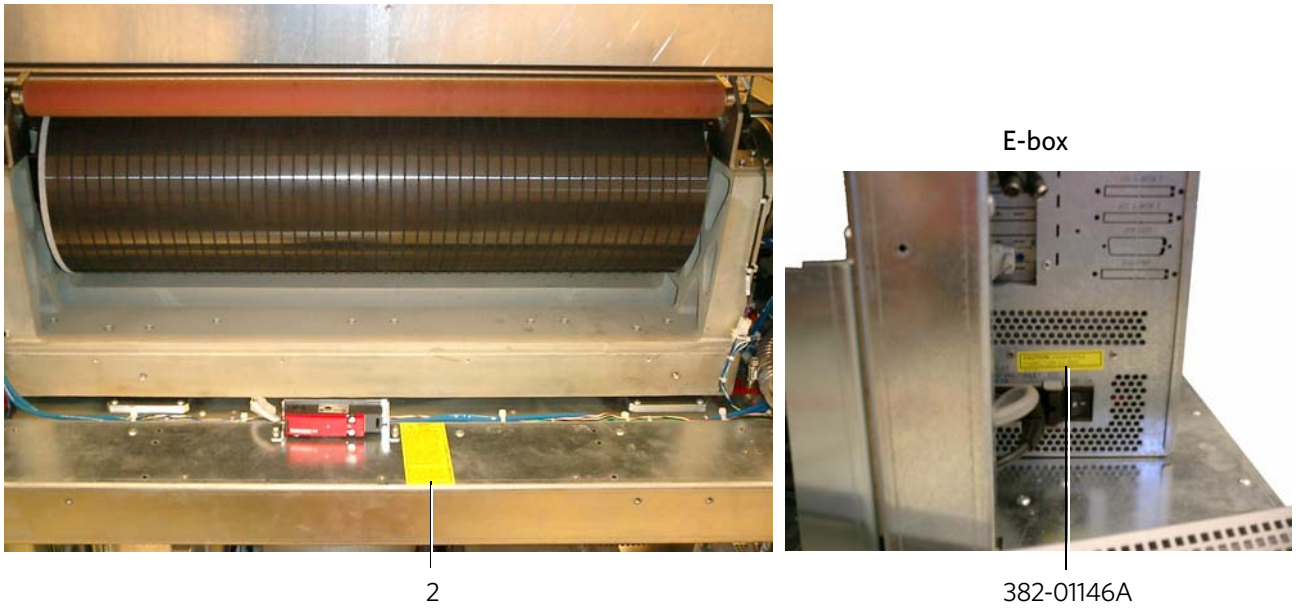


Figure 23: Narrow Hybrid rear panel open

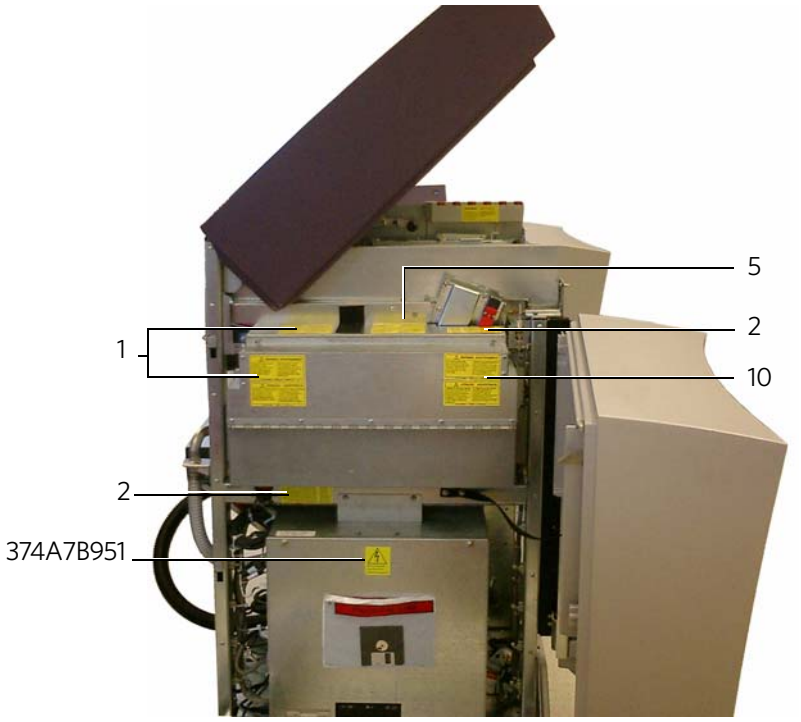


Figure 24: Narrow Hybrid left side door open

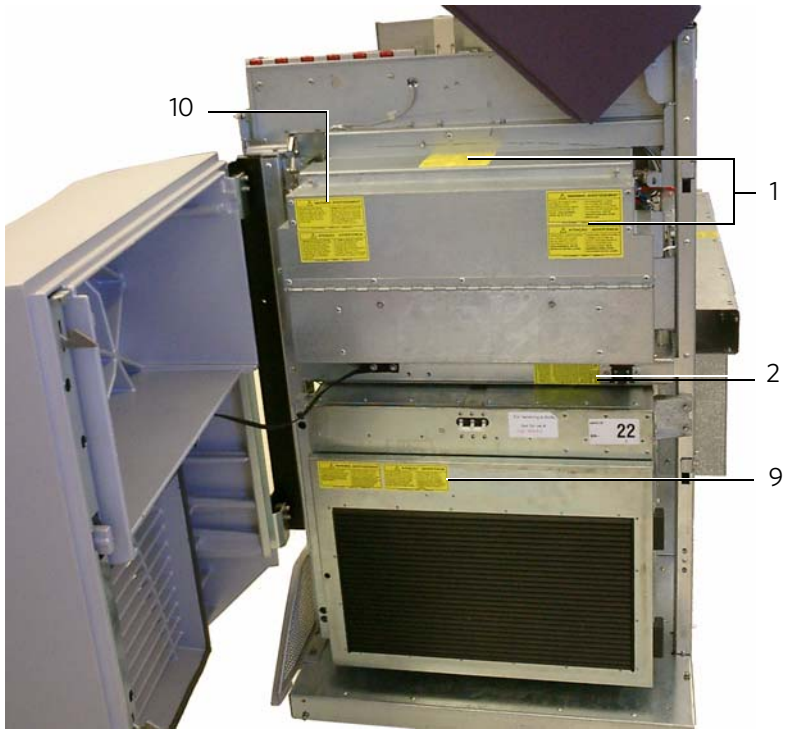


Figure 25: Narrow Hybrid right side door open

Narrow With Offset and Magnetic Drum Option Labels



Figure 26: Narrow Hybrid with Magnetic Drum and Offset options, top door open

Note: The registration pin holder in the photo may vary slightly from the registration pin holder on your platesetter.

ThemoFlex Mid II Hybrid Warning Label Locations

See the following figures for locations of warning labels on the ThermoFlex Mid II Hybrid platesetter.

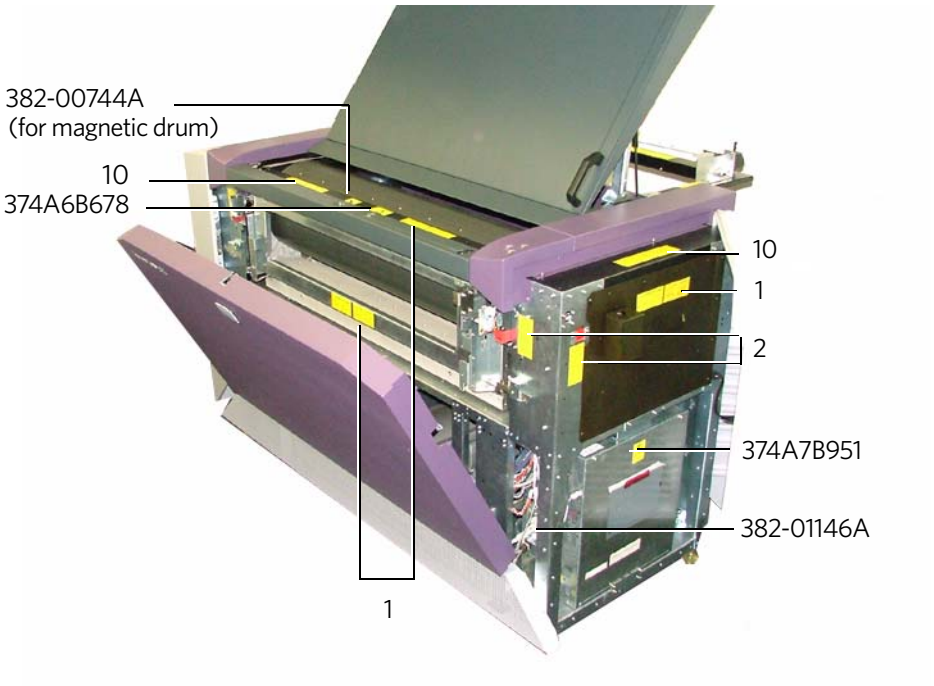


Figure 27: Front panel, right side door, and loading table open and in the up position

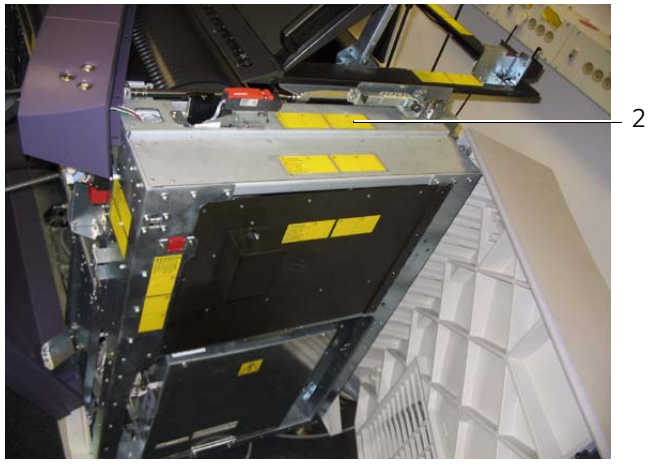


Figure 28: Operator panel removed

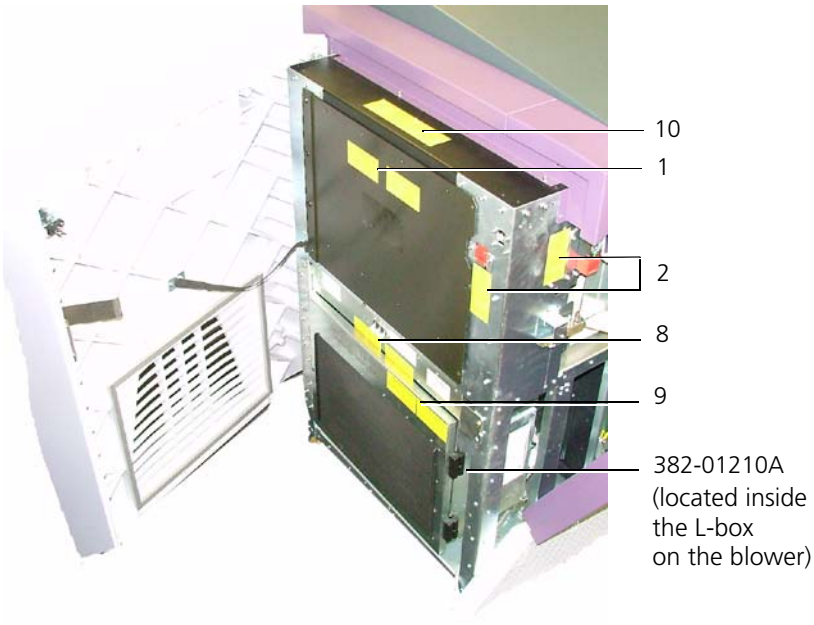


Figure 29: Left side door open

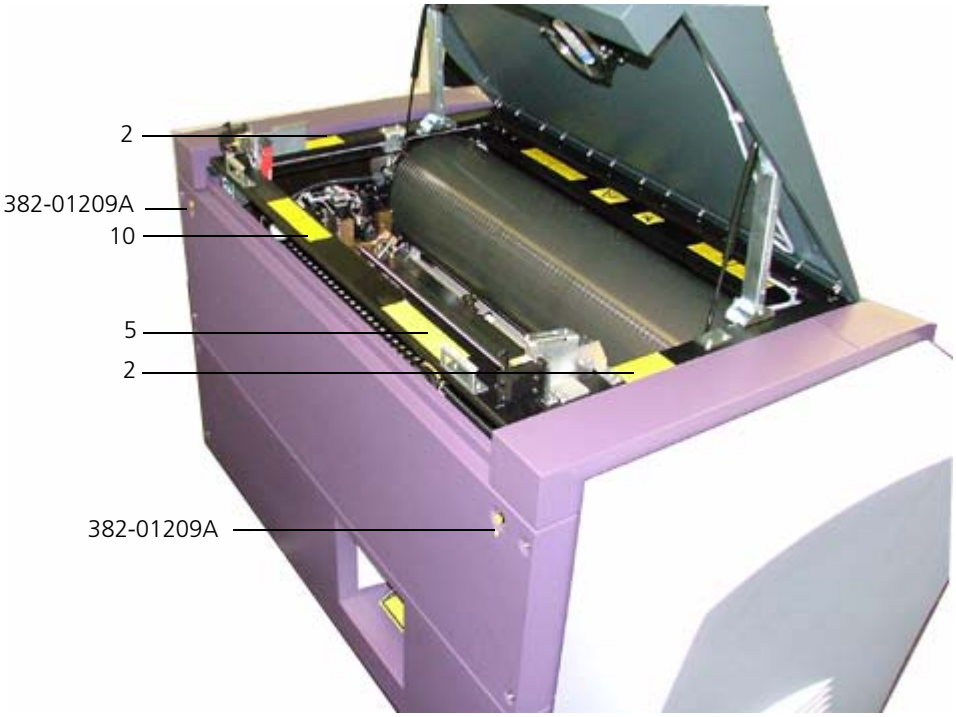


Figure 30: Rear view with the service door open



Figure 31: Rear panel removed

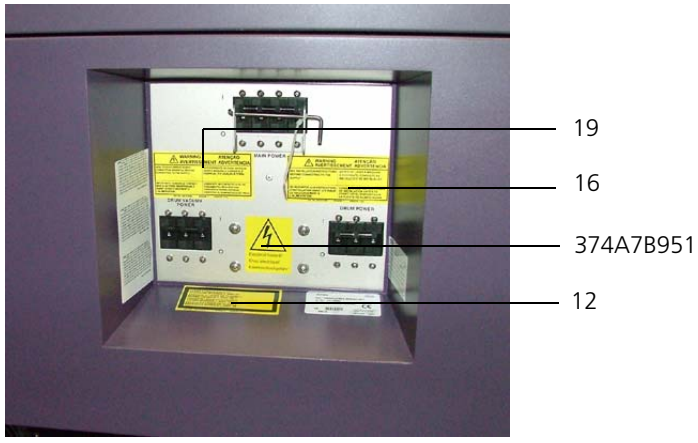


Figure 32: Distribution box

Mid II With Offset and Magnetic Drum Option Labels

Note: The location of the magnetic drum option label (382-00744) appears in Figure 27 on page 37.



Figure 33: Mid II Hybrid With Offset Option loading table open

Note: The registration pin holder in the photo may vary slightly from the registration pin holder on your platesetter.

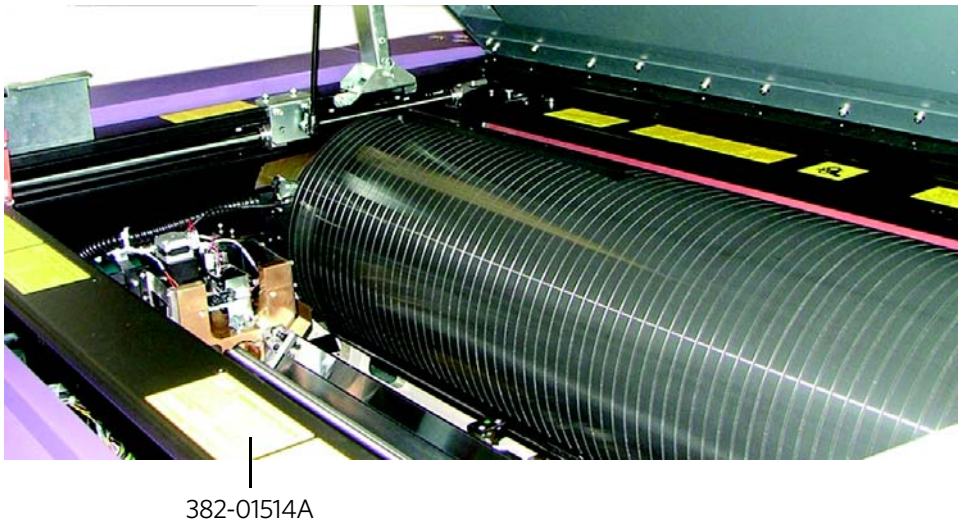


Figure 34: Mid II Hybrid With Offset Option service door open

Kodak

Eastman Kodak Company
343 State Street
Rochester, NY 14650 U.S.A.

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