Trendsetter

Platesetter

Model TST

Safety Guide for Operators

Original instructions

English

2011-12-01
761-00093A-EN Rev B

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Contents

1 Introduction to safety information

Before operating a platesetter, read the safety guide, understand the safety terminology, and know where to find more safety information.

Read this guide

Read this safety guide before you operate a platesetter or perform any maintenance procedures on it. This document must be accessible to anyone who operates the platesetter.

WARNING: Failure to read, understand, and follow the information in this guide may result in the incorrect operation of this product and can create a hazardous situation, which, if not avoided, can result in death or serious injury.

Familiarize yourself with the safety labels. Labels remind you of critical safety information while you are operating and maintaining the platesetter. If the labels do not provide safety information in the language used in your workplace, ask your authorized service representative if labels in that language are available.

Kodak platesetters have safety features that reduce the risk of harm from the hazards that are associated with these types of devices, including:

- Laser radiation
- Moving mechanical parts
- Hazardous voltage and hazardous electrical parts

This document describes these hazards, shows where you might encounter them, and explains the safety features that reduce the risk of harm from them. It also directs you to procedures for safe media handling and platesetter maintenance.

Definitions

This document assumes an understanding of certain terms.

Authorized service representative

Someone whom Kodak has approved to perform a service procedure. Authorized service representatives are trained in the proper procedures for working with and adjusting the laser system and for working with the mechanical and electrical systems of a platesetter.

Door

A hinged section of the exterior surface of a platesetter. It is opened and closed as part of regular daily operation. A door is vertical and can be opened without the use of tools.

Kodak Trendsetter platesetters with the autoloading option have a plate bay door, which operators open to load stacks of plates into the plate bay.

Operator

Someone whose primary responsibility is to load plates into a platesetter and start the exposure process. In some cases, depending on the platesetter and its options, operators also unload the exposed plates. Operators can remove stuck plates or plates that have fallen off the drum from the interior of the platesetter, and might be responsible for some maintenance tasks in areas that operators are allowed to access.

Operator access tool

A flat-head screwdriver

Panel

A large section of the exterior or interior surface of a platesetter. Operators can open or remove the front panels and right-side panel for maintenance or error recovery. An operator secures these panels with a flat-head screwdriver or by closing them by hand. All other panels are accessible only to service representatives.

Safety standards and compliance labels

Kodak platesetters are designed, built, and tested according to internationally recognized safety standards for reducing the risk of death and serious injury from laser, mechanical, and electrical hazards.

Kodak platesetters comply with the following standards:

- Class 1 laser product as specified in U.S. Federal Regulations 21 CFR 1040.10, in accordance with the regulations of the Center for Devices and Radiological Health (CDRH)
- EN 60825-1 / 2007 *Safety of Laser Products; Class 1 Laser Product.*
- CSA 60950-1 *Information Technology Equipment—Safety—Part 1*
- UL 60950-1 *Information Technology Equipment—Safety—Part 1*
- EN 60950-1 / 2006 +A11 *Information Technology Equipment—Safety —Part 1: General Requirements.*

- EN 60204-1 / 2006 +A1 *Safety of Machinery, Electrical Equipment of Machines. Part 1: General Req.*
- EN 55022 / 2006 +A1 *EMC. ITE - Radio Disturbance Characteristics - Limits & Methods of Measurement (CISPR 22); Class A.*
- EN 55024 / 2003 *EMC. ITE - Immunity Characteristics - Limits & Methods of Measurement (CISPR 24).*
- EN 61000-3-3 / 2008 *EMC. Limitation of Voltage Changes, Voltage Fluctuations and Flicker in Public Low-Voltage Supply Systems for Equipment with Rated Current ≤16 A per Phase and not Subject to Conditional Connection.*
- Low Voltage Directive 2006/95/EC
- Machinery Directive 2006/42/EC
- EMC Directive 2004/108/EC
- Class A product as specified in U.S. Federal Communications Commission (FCC) Rules, part 15
- For the base model—Airborne noise emissions at less than 70 dB(A)
- For the base model with the autoloader or continuousload option and *no* debris removal unit—Airborne noise emissions at a maximum of 72 dB(A)
- For the base model with the autoloader or continuousload option and a debris removal unit—Airborne noise emissions at a maximum of 78 dB(A)
- Operating ambient temperature at a maximum of 30°C

Dataplate label on the platesetter

The dataplate label displays many regulatory compliance markings and the platesetter's serial number. The label is located at the rear of the platesetter, near the power switch.

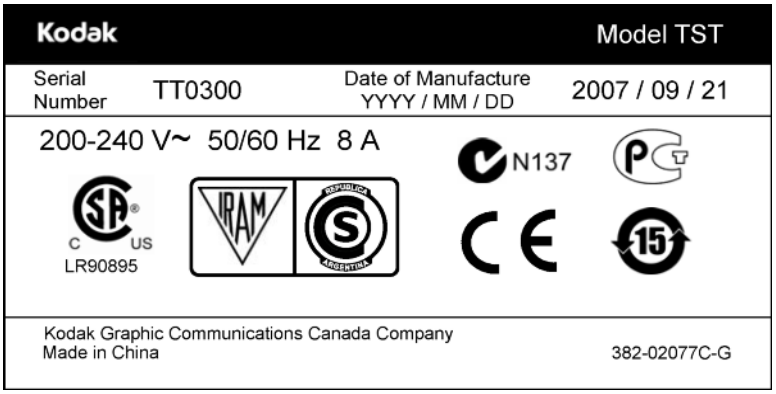


Figure 1: Dataplate label on a Trendsetter platesetter

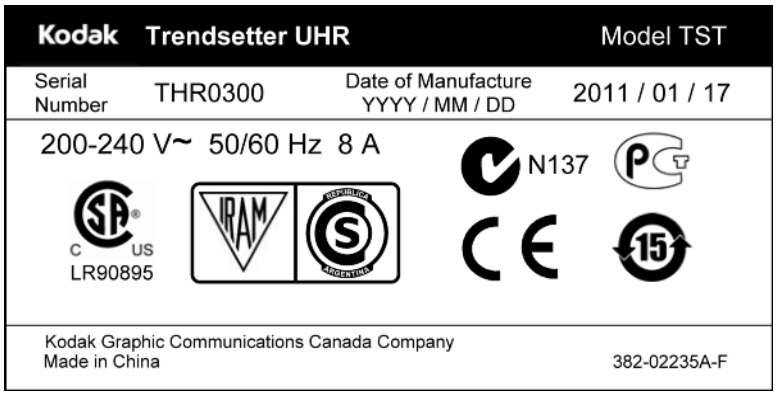


Figure 2: Dataplate label on a Trendsetter UHR platesetter

Figure 3: Location of the dataplate label

Compliance labels

The labels that show compliance with United States Federal Communications Commission (FCC) rules and with U.S. Center for Devices and Radiological Health (CDRH) requirements are located behind the right-side panel.

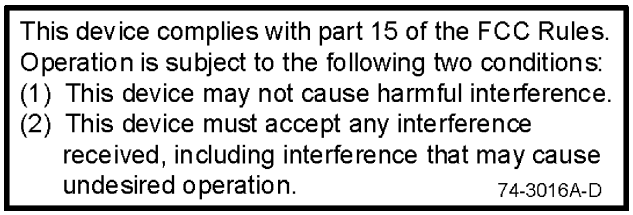


Figure 4: FCC label

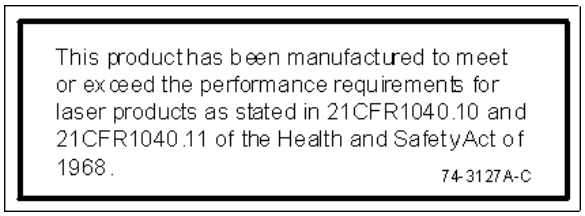


Figure 5: CDRH label

Figure 6: Location of the FCC and CDRH labels

Sources of additional safety information

The safety information in this document applies to the operation and maintenance of platesetters and their options.

If you have questions about the safe use of the platesetter, contact an authorized service representative.

For other Kodak or third-party products, see the safety documentation provided by the manufacturer of that equipment. For comprehensive safety guidelines for a prepress environment, consult the safety officer at your workplace.

For Kodak documentation, training courses, downloads, and service and support contacts and links to Material Safety Data Sheets (MSDS), go to http://graphics.kodak.com/.

For regulatory compliance information and updated and translated versions of this document, go to My Kodak Services at http://services.kodak.com/.

Types of safety messages

Messages with a safety icon and the signal word *DANGER*, *WARNING*, or *CAUTION* provide important safety information. Messages with the signal word *NOTICE* alert you to the possibility of damage to the platesetter.

DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING: Indicates a potentially hazardous situation, which, if not avoided, can result in death or serious injury.

CAUTION: Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates a situation which, if not avoided, could result in damage to the platesetter.

2 Safe operation

Follow all safety messages and procedures for operating the platesetter and for solving problems, and ensure that this safety guide is accessible to anyone who operates the platesetter.

The safety messages and procedures are in the user guide (available through the **Help** menu in the device control software) and in the visual reference guide.

Keep panels closed during operation

During normal operation (media loading, exposing, and unloading), all panels must be closed and locked to reduce the risk of exposure to laser radiation or moving parts

Figure 7: All panels closed on a platesetter with manual loading and unloading

Figure 8: All panels closed on a platesetter with manual loading and automatic unloading

Figure 9: All panels closed on a platesetter with automatic loading and unloading

During normal operation of an autoloading platesetter, you can open and close the plate bay door to load plates.

Figure 10: Opening the plate bay door to load plates during normal operation

When resolving a problem, you may be instructed to open the two front panels to perform the following actions:

- Remove media that is stuck or has come off the drum
- Reposition the trailing-edge clamps on the drum—that is, put them in the park position

Figure 11: Opening the front panels

WARNING: Read the user guide, the visual reference guide, and the labels on a platesetter to identify the parts of the platesetter that can move. Do not attempt to handle movable parts that are in motion. When opening a panel to perform maintenance or to solve a problem, follow the procedures for stopping mechanical operation in the user guide or the visual reference guide, and keep your hands away from moving parts until the drum comes to a complete stop. The moving parts of a platesetter can create a hazardous situation, which, if not avoided, can result in death or serious injury.

WARNING: Before approaching a platesetter, confirm that nothing on you can get caught in moving parts. Remove apparel such as ties and jewelry, roll up long sleeves, and gather long hair. The moving parts of the platesetter can create a hazardous situation, which, if not avoided, can result in death or serious injury.

CAUTION: Do not reach around the safety awareness barriers on the unload table when the unload table is moving or when you hear the beeping sound that indicates that the unload table is moving. Mechanical hazards associated with the unload table can result in minor or moderate injury.

Handle plates safely

Wear gloves when you handle plates and use ergonomic lifting techniques when handling stacks of plates.

CAUTION: Wear protective gloves when handling plates to protect your hands from the sharp edges and corners of the plates. Failure to wear protective gloves may result in minor or moderate injury.

CAUTION: Use ergonomic lifting techniques when loading stacks of plates into the platesetter. Improper lifting techniques can cause minor or moderate injury. Consult the safety officer at your workplace for information about approved methods for lifting heavy objects.

Handle magnetic clamps safely

WARNING: If you have an implanted cardiac pacemaker or automatic implantable cardioverter defibrillator (AICD), keep the drum's magnetic trailing-edge clamps more than 7 cm (2.75 in.) away from your implant, especially when holding the clamps in your hands to reposition them on the drum. Exposure to a strong magnetic field can switch pacemakers and AICDs from their normal mode of operation to a diagnostic mode, which may be hazardous if prolonged. For more information, contact your physician and/or the manufacturer of your implant.

Figure 12: Pacemaker warning label

Figure 13: Locations of pacemaker warning labels on trailing-edge clamps

CAUTION: Wear protective gloves when handling the drum trailing-edge magnetic clamps, and don't put your fingers between the clamps and the drum surface. Otherwise, you may pinch your unprotected fingers between the trailing-edge clamps and the drum, resulting in minor or moderate injury.

Airborne emissions

Certain media types require a Universal Debris Removal Cabinet (UDRC) to filter potentially harmful particulate airborne emissions that are released during imaging.

The UDRC automatically draws these emissions through a hose from the platesetter's thermal imaging head into the UDRC cabinet, where most of the particulate matter is trapped in a filter. The filtered air is exhausted back into the room.

Particulate emissions that are not properly filtered can endanger your health. The lens of the thermal imaging head can also become dirty, which will affect imaging.

The UDRC will not operate without a filter or when the filter is full. When the filter is nearly full, the Print Console software displays messages advising you to have a replacement filter ready. When the filter is full, the platesetter will not image any more jobs until you replace the filter.

If you plan to switch media, or if you are uncertain whether your current media requires a UDRC, contact your service representative.

WARNING: Particulate airborne emissions that are not properly filtered can endanger your health. For a list of airborne emissions that pertain to the media you are using, see the manufacturer's Material Safety Data Sheet (MSDS) or contact the manufacturer or distributor directly.

WARNING: Do not use a UDRC particulate filter with a damaged gasket, and do not attempt to expose printing media with a depleted filter. Failure to heed these warnings can result in exposure to airborne emissions in excess of applicable regulatory limits and in possible discomfort, illness, injury, and/or disability.

WARNING: Use only qualified media. Using unqualified media may expose you to noxious gaseous emissions in excess of applicable regulatory limits. This may result in discomfort, illness, injury, and/or disability.

Dataplate label

The dataplate label on the UDRC displays regulatory compliance markings and the serial number for the UDRC. The label is located at the rear of the UDRC.

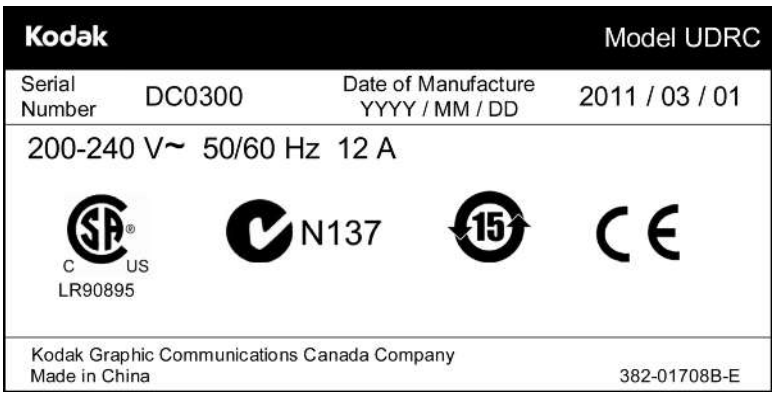


Figure 14: Dataplate label on the UDRC

Configuration label

The UDRC is available in different configurations for different types of printing media. The configuration label, which is located at the rear of the UDRC, identifies the configuration that you are using in your system and the part number for the particulate filter.

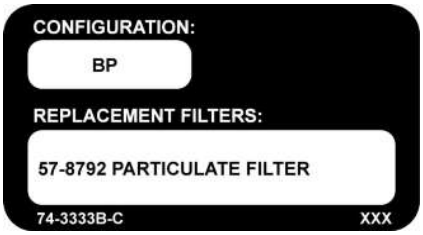


Figure 15: Sample of a configuration label

Figure 16: Location of dataplate and configuration labels (shown on a UDRC without external venting)

Airborne emissions label

The Particulate Airborne Emissions label is located at the rear of the UDRC. It warns you of the possible release of airborne emissions when imaging certain types of media. Kodak has a media qualification process that tests many types of media for various emissions. Ensure that all media you use is qualified for safe exposure in your platesetter.

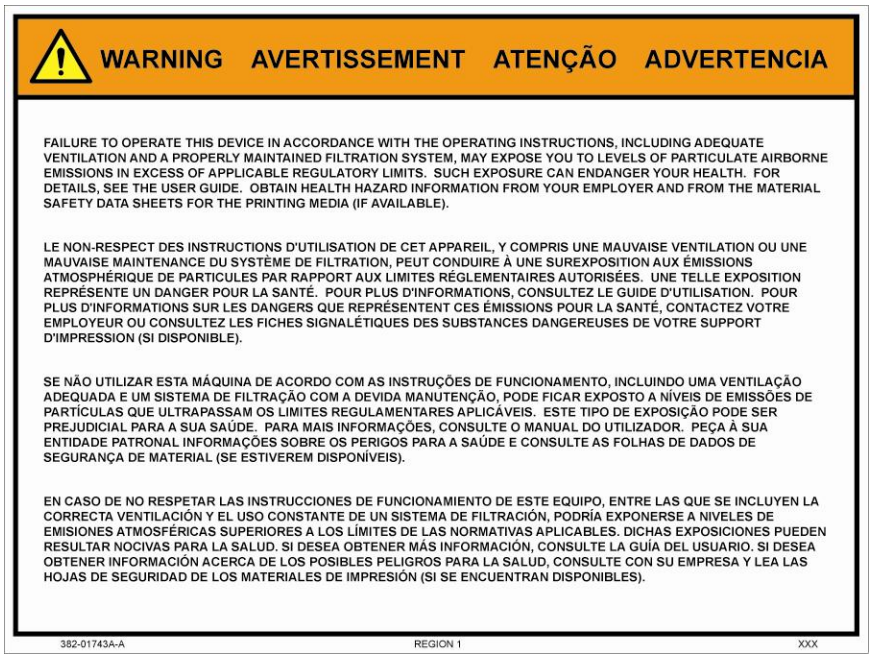


Figure 17: Particulate airborne emissions label

3 Safe maintenance

The maintenance tasks that operators can safely perform are described in the user guide (available through the **Help** menu in the device control software) and in the visual reference guide.

Operators can safely perform the following maintenance tasks:

- Cleaning exterior surfaces, including the area where media enters the platesetter
- Cleaning the edge detection strip
- Cleaning the plate roller
- Replacing the filters for the compressed air supply
- Replacing the air intake filter
- Replacing the UDRC filter
- Replacing the DuPont Mylar film strip (some autoloading platesetters)

Only authorized service representatives should perform other maintenance procedures and all service work.

DANGER: Do not perform unauthorized repairs or make modifications to the platesetter. Unauthorized panel removal, repairs, or changes can expose you to visible and invisible high-powered laser radiation, moving mechanical parts, and/or electrical shock, which will result in death or serious injury.

DANGER: Do not remove service access panels. Only authorized service representatives can safely access areas protected by these panels. Unauthorized panel removal can expose you to visible and invisible high-powered laser radiation and/or moving mechanical parts, which will result in death or serious injury.

DANGER: Do not remove any covers bearing the hazardous voltage label. The covers protect you from high-voltage components that can cause severe electrical shock, which will result in death or serious injury.

WARNING: Do not let water or other liquids run freely into the platesetter. This can result in death or serious injury from electrical shock.

WARNING: Do not use chemical solvents or aggressive cleaning solutions to clean the compressed air supply filter bowls. This can cause cracking or crazing damage to the plastic parts. When damaged plastic parts are exposed to high-pressure air, the parts may explode and cause serious injury.

Some maintenance tasks include instructions to open the two front panels (to clean the edge detection strip and the plate roller) or to remove the right-side panel (to replace the air intake filter). To safely open or remove these panels, follow the instructions in the visual reference guide or the user guide.

Figure 18: Panels that are safe for operators to open or remove

Front panels

The right-front panel is secured with a solenoid lock that can be unlocked in the following two ways:

- Click the **Unlock** operation in Print Console. If any jobs are being exposed when you click **Unlock**, Print Console displays a message asking if you want to cancel the jobs before it sends the unlock command. If the drum is moving when you click **Unlock**, the solenoid lock normally is not released until the drum comes to a complete standstill.
- Rotate the power/emergency stop switch to the off position. The solenoid lock is released as soon as the switch is rotated to the off position and the power is disconnected. If the drum is moving when you turn off the power, the drum normally stops revolving within five seconds of the lock's release. Wait five seconds before opening the right-front panel.

When the lock is released, you can open the right-front panel and then the left-front panel. If you see any mechanical movement when you open the front panels, the platesetter must be repaired.

- Keep your hands away from the moving parts.
- Rotate the power/emergency stop switch to the off position and secure it with a padlock.
- Close the front panels.
- Contact your authorized service representative.

When you close the front panels (first the left-front panel and then the right-front panel), the solenoid lock is restored. The platesetter will not resume normal operations until all panels are closed and locked.

Right-side panel

To remove the right-side panel, use a flat-head screwdriver to loosen (rotate counterclockwise) the fasteners that secure the panel to the platesetter. If you remove the panel while the platesetter is operating,

before the safety interlock system becomes effective, a metal barrier behind the panel reduces the risk of exposure to laser radiation or moving parts.

Figure 19: Metal barrier behind right-side panel

4 Safety features

All platesetters include safety features that reduce the risk of injury from laser, mechanical, and electrical hazards. The features include a safety interlock system, a power/emergency stop switch, emergency stop buttons, and a shutoff valve for the compressed air supply system. Platesetter options may have additional built-in safety features.

Safety interlock system

Platesetters are equipped with a safety interlock system that reduces exposure to hazards by unlocking panels only when it is safe to gain access to the areas that they cover.

Important: The safety interlock system is a critical safety feature. You will jeopardize your safety and the safety of others in the vicinity of the platesetter if you tamper with it in any way.

Platesetters use various types of interlocks to reduce the risk of injury from the following kinds of hazards:

- Write laser hazards (the invisible laser beam that exposes the media)
- Focus laser hazards (the visible laser beam that keeps the write laser focused on the media during exposure)
- Mechanical hazards (moving parts, such as the drum and carriage)

If you open or remove an interlocked panel while the platesetter is operating, the platesetter stops sending power to the laser and halts all mechanical activity. A message that indicates a problem may appear in your device control software. You are prevented from operating the platesetter until all the panels are closed and locked.

On platesetters with an autoloading option, the door covering the plate storage area may be interlocked. If you open it to load plates, the platesetter continues exposing, but the picker does not move until the door is closed again.

Labels identify all the access panels that have interlock switches.

DANGER: Do not tamper with the safety interlock system on the doors or panels.

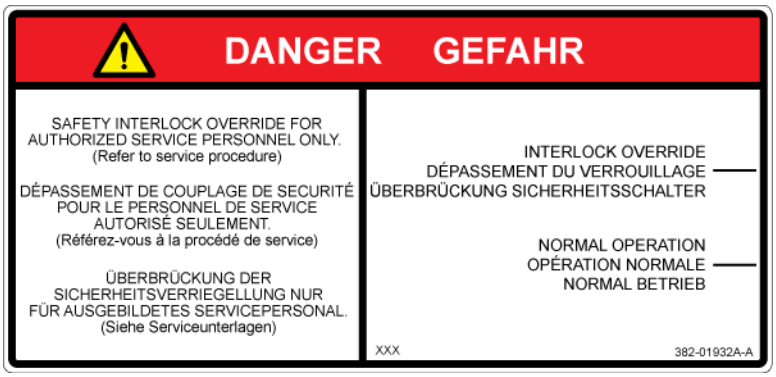
- Do not attempt to open or remove panels while the platesetter is exposing media.
- Do not attempt to operate the platesetter with any panels open.
- Do not try to operate the platesetter if the laser interlock system warning message appears in the device control software. (This applies only to messages about safety interlocks on panels. It does not apply to messages about the safety interlock on the picker.)

Tampering with the safety interlock system can expose you to laser radiation and/or moving mechanical parts. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING: When opening a panel, wait a few moments before starting to work inside the platesetter. It can take up to two seconds for the safety interlock system to completely shut down the laser sources and up to 15 seconds for the system to shut down the mechanical movement. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, can result in death or serious injury.

WARNING: When you open a door or panel, if you suspect that the safety interlock system did not shut down laser sources and/or mechanical movement, use an emergency stop button or the power/emergency stop switch to shut down the platesetter. Secure the power/emergency stop switch in the off position with a padlock, and do not operate the platesetter again until it has been approved for operation by an authorized service representative. A defective safety interlock system can expose you to laser radiation and/or moving mechanical parts. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, can result in death or serious injury.

Another label identifies the safety interlock override (SIO) key switch. Only service representatives are authorized to use this switch. Operators should never be in possession of the key, nor attempt to activate this switch.



DANGER: Unauthorized use of an interlock override tool, such as a safety interlock override (SIO) switch, can expose you to laser radiation, moving mechanical parts, and/or electrical shock. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, will result indeath or serious injury.

Power/emergency stop switch

The power/emergency stop switch disconnects power to the platesetter.

The power/emergency stop switch is a red rotary switch with a yellow background. It is located on the outside rear of the platesetter. You can secure the switch in the off position with a padlock when you perform a task that requires a lockout procedure.

Figure 20: Power/emergency stop switch, showing the hole where you can insert a padlock

Figure 21: Location of the power/emergency stop switch on a platesetter with manual loading and unloading

Figure 22: Location of the power/emergency stop switch on a platesetter with an unload table

Regular operation

The power/emergency stop switch disconnects power to the platesetter so that you can safely perform maintenance procedures or

retrieve stuck media. When you are instructed to turn off the power for a maintenance procedure, turn the power/emergency stop switch to the off position and secure it with a padlock. The padlock reduces the risk that another person will turn on the platesetter while you are performing maintenance or solving a problem. When you complete the procedure, turn the power switch to the on position.

Emergency operation

The switch can be used as an emergency stop mechanism when you cannot reach an emergency stop button.

- If an emergency shutdown is necessary, first try to use an emergency stop button.
- If an emergency stop button is not accessible, turn the power switch counterclockwise to the off position.

Emergency stop buttons

Emergency stop buttons stop laser operation and mechanical movement.

Each emergency stop button is a red button on a yellow background.

An emergency stop button does not disconnect power to the platesetter. Therefore, you can continue to check the Print Console software for information about how to solve a problem.

If you press an emergency stop button, you must reset it before the platesetter can return to normal operation. To reset the button, rotate it clockwise until it pops up, click the **Resume** operation in Print Console, and follow the instructions in the Print Console recovery messages.

Emergency stop buttons are located in the following areas:

- On the exterior of the device, to the left of the loading area
- Inside the device, behind the front panels

Figure 23: Location of the exterior emergency stop button

Figure 24: Location of the exterior emergency stop button

Figure 25: Location of the exterior emergency stop button

Figure 26: Location of the interior emergency stop button

WARNING: Assume that laser and mechanical hazards may still be present for a few moments after you press an emergency stop button, and remember that the electrical power is still connected. When the emergency stop mechanism is activated, it can take up to two seconds to completely shut down the laser sources and up to 15 seconds for the system to shut down mechanical movement. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, can result in death or serious injury.

Compressed air supply shutoff valve

The pneumatic system in the platesetter (and the APL, if you have the APL option) is supplied by an external compressed air power source.

The compressed air supply shutoff valve controls the supply of compressed air to the platesetter.

The valve is normally left in the on position. Turn the valve to the off position before replacing the filters in the compressed air supply system.

WARNING: Turn the compressed air supply shutoff valve to the off position when working on the air supply filters. Failure to turn off the compressed air supply before inspecting or replacing a compressed air supply filter will result in high-pressure air being present in the filter elements and bowl, making disassembly difficult. This can result in possible serious injury from flying parts and a very loud noise that can damage your hearing.

When the red shutoff valve is in the on position, the compressed air supply pressurizes the platesetter pneumatic system.

As you turn the red shutoff valve to the off position, you hear a hissing sound, which indicates that the high-pressure air that is currently in the filter elements and bowl is being drained out of the system. When the red shutoff valve is fully in the off position, the compressed air supply is blocked and it is safe to inspect or change the filters.

You can secure the valve in the off position with a padlock when you perform a task that requires a lockout procedure.

Safety features on the unload table

Trendsetter platesetters with the automatic loading and/or automatic unloading option have an unload table. Safety features on the unload table include safety awareness barriers and an audible warning when the unload table is moving.

Safety awareness barriers on the unload table

Safety awareness barriers are located on both sides of the unload table. They reduce the risk of contact with the unload table when it is moving. Each barrier has a symbol to remind you not to reach around the awareness barriers when the unload table is moving.

Figure 27: Symbol on safety awareness barriers

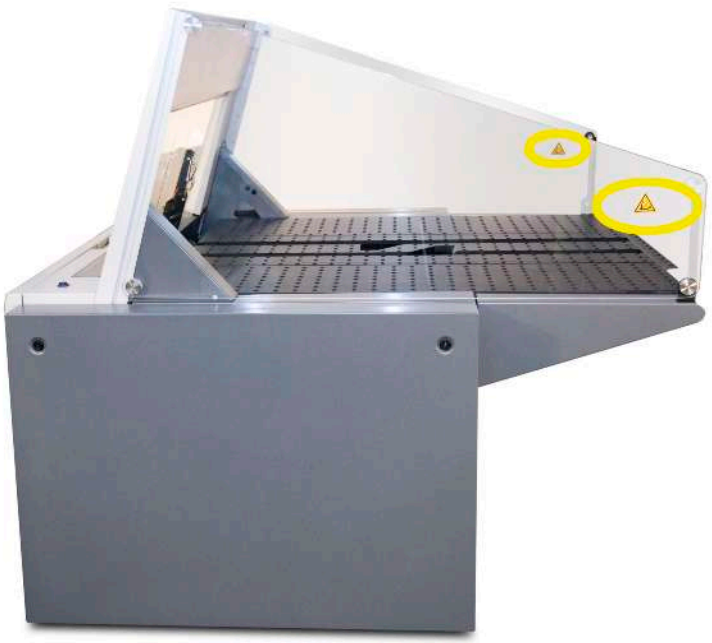


Figure 28: Location of the symbols on the safety awareness barriers

Audible warning when the unload table is moving

Depending on the noise levels in your operating environment, you might hear a beeping sound that alerts you when the unload table is moving.

5 Hazards

The major hazards associated with platesetters are laser radiation, moving mechanical parts, and hazardous voltage electrical parts.

Laser hazards

The platesetter has safeguards that reduce the risk of injury from laser hazards.

The thermal imaging head has two lasers, which emit visible and invisible high-powered laser radiation:

- Visible (red) focus laser (class IIIB, approximately 670 nm)
- Invisible (infrared) write laser (class IV, approximately 830 nm)

Laser emissions from a thermal imaging head are invisible to the naked eye and are very dangerous if they contact skin or eyes.

DANGER: Follow these guidelines to reduce the risk of exposing everyone in the vicinity of the platesetter to laser radiation (directly from the laser system or from the laser reflected on shiny or matte surfaces):

- Do not operate the platesetter if you suspect that any part of the laser system is defective.
- Do not tamper with the interlock system on the access panels or doors.
- Do not attempt to open or remove doors or panels while the platesetter is exposing media.
- Do not attempt to operate the platesetter with any doors or panels open.
- Do not look directly or indirectly into the laser beam.

The thermal imaging head emits both visible and invisible high-powered laser radiation as part of its normal imaging process. Even brief exposure to either type of laser radiation can burn skin and can cause permanent degradation or loss of eyesight. In the presence of flammable material, the laser beam is also a fire hazard.

Kodak platesetters are class 1 laser products. This means that if you comply with the information in this document, the platesetter's safety mechanisms reduce the risk of harm from visible and invisible high-powered laser radiation. The class 1 laser product label, located behind the right-side panel, indicates compliance with standards for laser safety.

Figure 29: Class 1 laser product label

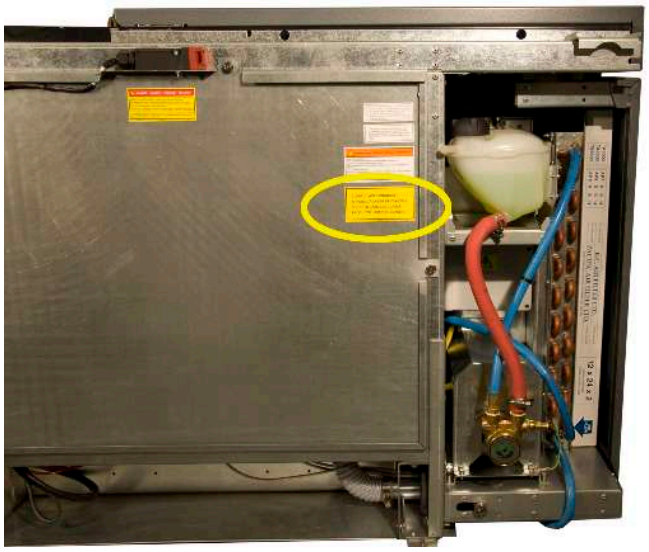


Figure 30: Location of the class 1 laser product label behind the right-side panel

The safeguards that reduce the risk of injury from laser hazards include the following:

- The interlock system
- External panels and internal protective barriers that keep laser radiation within the platesetter
- Labels that warn you when you are near a source of laser radiation

Laser danger and radiation label

A label located on the rear of the thermal imaging head provides a DANGER safety message, and indicates that the thermal imaging head presents a laser hazard, is a class 4 laser product, and emits visible and invisible radiation. This information is provided for authorized service representatives and applies only to the thermal imaging head. The platesetter is a class 1 laser product.

Figure 31: Laser danger label with laser classification and specifications

Dataplate label on the thermal imaging head

The dataplate label for the thermal imaging head is located on the rear of the thermal head. The label provides identification and regulatory compliance information.

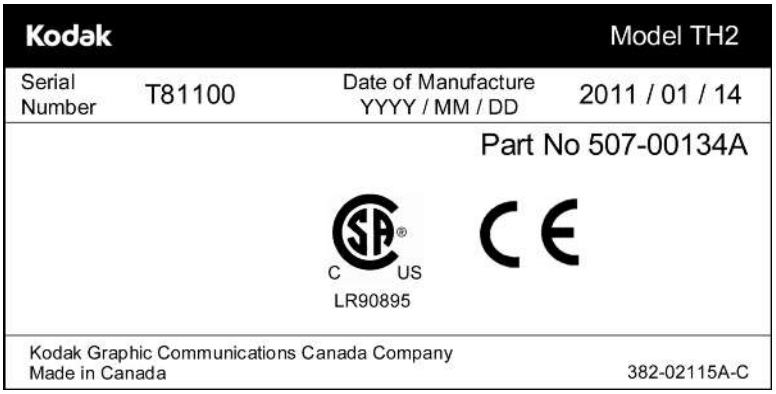


Figure 32: Dataplate label for the thermal imaging head

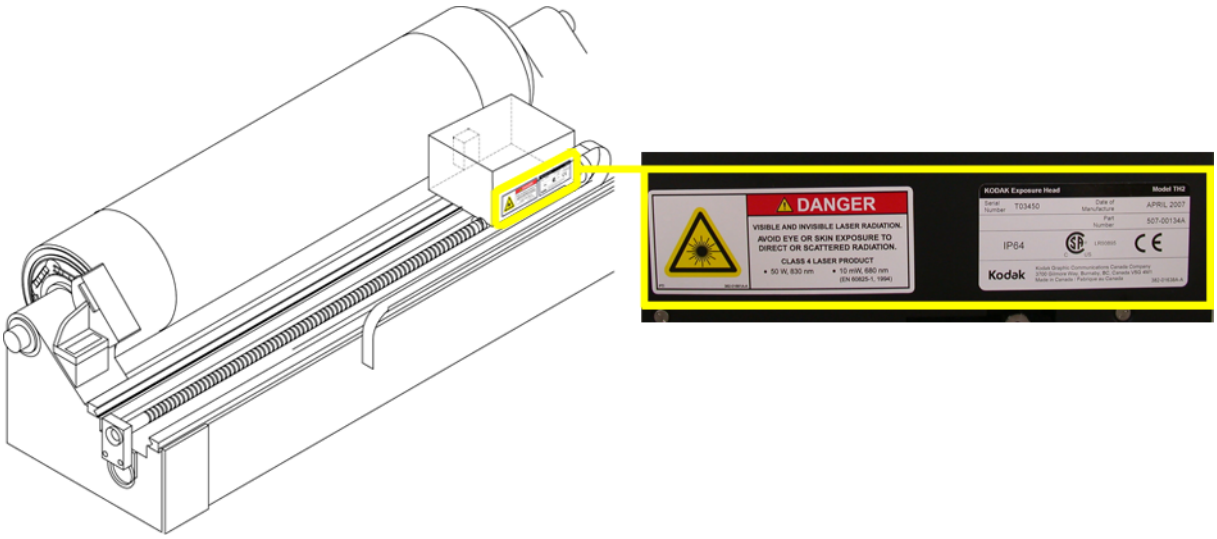


Figure 33: Location of the laser danger label and thermal imaging head dataplate label

Laser aperture label

The laser aperture label is located on top of the thermal imaging head, pointing to the shutter and the aperture. The label reminds you that you are near a source of hazardous laser radiation.

Figure 34: Laser aperture label

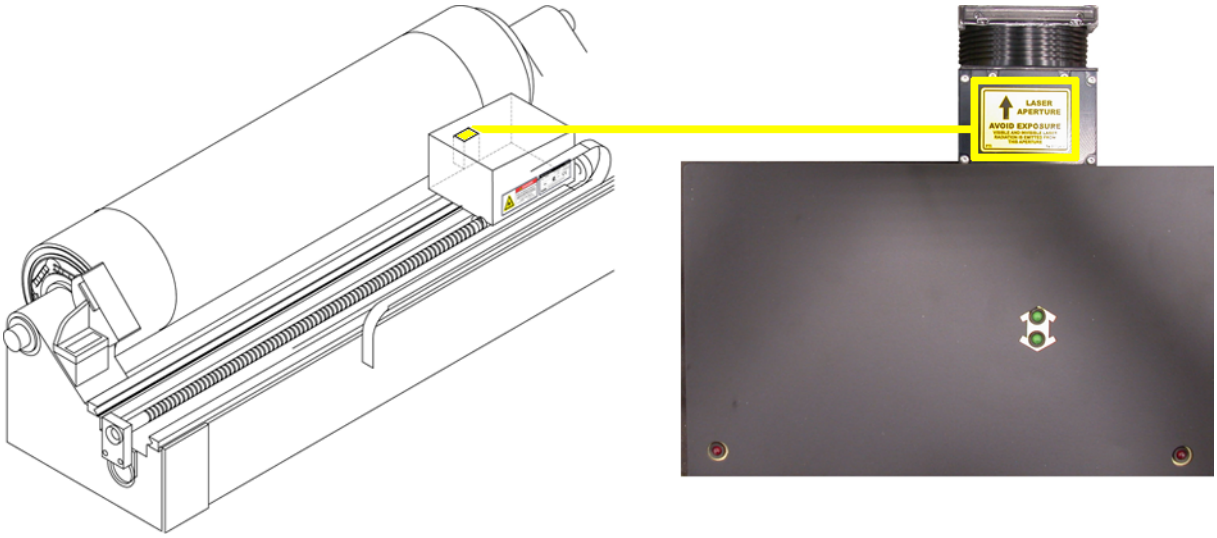


Figure 35: Location of the laser aperture label

Mechanical hazards

You are most likely to encounter mechanical hazards when you access the drum area for maintenance procedures or when you have to remove media that has come off the drum. You might also encounter mechanical hazards when you perform maintenance procedures on pneumatic components.

The drum normally revolves up to 400 times per minute. Exposure to a revolving drum can result in serious injury to the operator, authorized service representatives, or others in the vicinity of the platesetter. Also, if an object hits the revolving drum, the object can become lodged inside the platesetter and cause damage, including damage to the safety system, the thermal imaging head, or the protective enclosure. When you release a lock to access the drum area, you must confirm

that the drum has stopped revolving before you start your maintenance or error recovery procedure.

The areas where you are most likely to come in contact with moving mechanical parts have warning labels on them reminding you to check that all movement has stopped before you start your maintenance or recovery procedure. For operators, the primary mechanical hazard is the drum. A warning label is located on the leading-edge clamp on the drum, behind the front panels.

Figure 36: Keep-hands-out label

Figure 37: Location of the keep-hands-out label on the leading-edge clamp behind the front panels

WARNING: When opening a panel, wait a few moments before starting to work inside the platesetter. It can take up to two seconds for the safety interlock system to completely shut down the laser sources and up to 15 seconds for the system to shut down the mechanical movement. Exposure to visible and invisible high-powered laser radiation can burn skin and can cause permanent degradation or loss of eyesight. Moving mechanical parts can create a hazardous situation, which, if not avoided, can result in death or serious injury.

If the platesetter has the autoloader option, a symbol on both of the safety awareness barriers on the unload table alerts you to the risk of injury from moving parts when the unload table is in motion.

When you are doing maintenance or error recovery procedures, you might also see a label that reminds service representatives of mechanical hazards when they are servicing a platesetter. The beware-of-moving-parts label for service representatives is located on the leading-edge clamp, behind the front panels. If the platesetter has the autoloading option, this label is also affixed to the picker assembly.

Figure 38: Beware-of-moving-parts label for service representatives

Figure 39: Location of the beware-of-moving-parts label on the leading-edge clamp

Figure 40: Location of the beware-of-moving-parts label on the picker assembly of the autoloader option

Pneumatic elements

Some components are pneumatic. Compressed air powers their movement. The compressed air supply filters should be inspected and replaced periodically. For the approved procedures for working with the compressed air supply systems, see the visual reference guide or the user guide.

For detailed information about the pneumatic connections, see the site preparation guide. Do not change any of the pneumatic connections.

The platesetter has a label that shows the maximum air supply pressure approved for the device. The label is located at the rear of the platesetter, near the compressed air inlet connector.

Figure 41: Location of the maximum psi/bar label

WARNING: Turn the compressed air supply shutoff valve to the off position when working on the air supply filters. Failure to turn off the compressed air supply before inspecting or replacing a compressed air supply filter will result in high-

pressure air being present in the filter elements and bowl, making disassembly difficult. This can result in possible serious injury from flying parts and a very loud noise that can damage your hearing.

Electrical hazards

Kodak platesetters use electricity to power their operation. The primary sources of electrical hazards are enclosures that house high-voltage electrical components and electrical wiring and connectors.

Electrical enclosures

Electrical circuits are located inside electrical enclosures that are *not* protected by the interlock system—in areas that should be accessed only by authorized service representatives. If you see the hazardous voltage label on a panel, do not remove that panel.

Figure 42: Hazardous voltage label

Figure 43: Location of a hazardous voltage label

WARNING: Be aware of electrical components when working inside a platesetter. The safety interlock system shuts down laser and mechanical activity but does not disconnect power to electrical parts. Although most hazardous electrical components are behind panels that are secured with service tools, damaged wiring may create an electrical shock hazard, which can cause death or serious injury.

WARNING: Do not perform unauthorized repairs or make modifications to the power supply or to the electrical wiring. Unauthorized repairs or changes made to a platesetter can expose you to electrical shock, which can cause death or serious injury.

Electrical connections

For detailed information about the electrical connections, see the site preparation guide. The high-touch current label behind the right-side panel reminds you that, because of high-touch current, you must verify the platesetter is reliably grounded through the protective earthing pin of the AC power plug.

Figure 44: High-touch current label

Figure 45: Location of the high-touch current label

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