The original instructions in this document were written in U.S. English. All other languages are a translation of the original instructions.
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Safety information

The 3M™ Intelligent Return is a complex machine requiring strict observance of relevant safety rules and guidelines. Before working with the machine, ensure that you are familiar with the machine and its operating parts, and with the specific safety instructions included in this manual.

• This manual describes potential hazards you may encounter during operation of this product, but we cannot predict all possible hazards. Safety messages included in this manual may not represent an exhaustive list, and the guidelines included in this manual should be applied using your judgment and experience.

• Prior to using this equipment, read and observe all safety information and instructions included in this manual.

• If you are unsure about any of the potential hazards discussed, contact your supervisor immediately.

Read, understand, and follow all safety information contained in these instructions before using your 3M™ Intelligent Return. Retain these instructions for future reference.

Intended use

The 3M™ Intelligent Return enables guided check-in and return of library items by library patrons or staff. The system may be used as a stand-alone unit or with an optional sortation system, which will automatically sort library items.

The patron interface for each system can be mounted into either an interior or exterior wall, and all other system components are located in a staff work area behind the wall. Outdoor patron interfaces have been evaluated for outdoor use, and all other system components are designed for an indoor library environment. The system has not been evaluated for other locations or uses.

Explanation of signal word consequences

<table>
<thead>
<tr>
<th>WARNING</th>
<th>Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTION</td>
<td>Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.</td>
</tr>
</tbody>
</table>
### Explanation of product safety labels

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Attention" /></td>
<td>Attention: Read accompanying documentation</td>
</tr>
<tr>
<td><img src="image" alt="Risk of electric shock" /></td>
<td>Risk of electric shock</td>
</tr>
<tr>
<td><img src="image" alt="Hand entrapment risk" /></td>
<td>Hand entrapment risk</td>
</tr>
<tr>
<td><img src="image" alt="Risk of tipping" /></td>
<td>Risk of tipping: Observe weight limit</td>
</tr>
<tr>
<td><img src="image" alt="Guard removal warning" /></td>
<td>Guard removal warning</td>
</tr>
<tr>
<td><img src="image" alt="Display unit" /></td>
<td>Display unit: Mercury disposal hazard</td>
</tr>
<tr>
<td><img src="image" alt="Laser Scanner" /></td>
<td>Laser Scanner: Laser Exposure</td>
</tr>
</tbody>
</table>

### Warnings

**To reduce the risks listed in this document:** Read, understand, follow and retain for future reference all safety statements in the service and user documentation, as applicable, prior to use of the system.

**To reduce the risks associated with fire and hazardous voltage:**

- Ensure that each 3M™ Intelligent Return modular design is approved by 3M Library Systems Technical Service, St. Paul, MN, USA.
- Ensure that the system is installed per the Field Service Handbook by 3M authorized service providers only.
To reduce the risks associated with hazardous voltage:

- Ensure that ground continuity of each component in the system is checked prior to start up.
- Always turn off all system power and disconnect all power cords prior to performing any maintenance on this system.

Cautions

To reduce the risks associated with falling/impact: Do not lean on any top edge of an empty or partially loaded book bin.

To reduce the risks associated with environmental contamination: Dispose of all system components in accordance with all applicable regulations.

To reduce the risk associated with exposure to laser light due to a person looking into the laser scanner:

- Do not look directly into laser scanner device.
- At the end of service life, dispose of laser scanner in accordance with federal, state, and local requirements.

Important note

The Code of Federal Regulations (CFR) 21CFR1040.10 requires the following statement for products containing lasers: Caution—use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.
Label locations: Model 2830

3M™ Sorter System FX, M2830
100-120V / 200-240V~
50 / 60 Hz
2.5 / 1.5 A
S/N: 283XXXXX

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numerique de la classe A est conforme
e la norme NMB-003 du Canada.

This product complies with 21 CFR Subchapter J, IEC 66825-1:2007 and EN 66825-1:2007

CAUTION LASER LIGHT
DO NOT STARE INTO BEAM
0.95 mW at 630-670 nm
CLASS 2 LASER PRODUCT

This product contains mercury and must be disposed of according to local, state, and federal laws.

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# Declaration of Conformity

## The Company Name

3M Company

## The Company Address

3M Center, St. Paul, Minnesota 55144 USA

## Full Name and Address of Individual Responsible to Compile Technical File within the Community:

Christoph Langner  
3M Track and Trace Solutions  
3M Deutschland GmbH  
Carl-Schurz-Str. 1, D-41453 Neuss  
+49 (0) 2131 14 3532

Declares that the product(s):

### Product Name and/or Model Number(s)

Intelligent Book Return System, Models 2810, 2812, 2820, 2822, 2830, 2840

### Type and/or Description

The 3M Intelligent Book Return System is designed and tested for use in automating the process of returning books in libraries.

## Conform(s) to the following specifications:

### Directives

2006/95/EC Low Voltage Directive  
2006/42/EC Machinery Directive  
2004/108/EC EMC Directive  
1999/5/EC RTTE Directive  
2006/95/EC Restriction of Hazardous Substances (RoHS) Directive

### Year in which CE mark first affixed

2009

## Standards

### Safety:

- IEC/EN 60950-1:2001 Information Technology Equipment - Safety  
- EN 60204-1:2006 Safety of Machinery - Electrical Equipment of Machines  
- ISO/EN 12100-1:2001 Safety of Machinery - Basic Concepts and Technical Principles  
- ISO/EN 14121-1:2001 Risk Assessment Principles  
- EN 50364:2002 Human Exposure to Low Power Electronic and Electrical Apparatus

### EMC:

- ETSI EN 300 330-2, V1.3.1 (2005-04)  
- ETSI EN 301 486-3, V1.1.4.1 (2002-08)  
- IEC/EN 61000:2006 Radiated/Conducted Emissions  
- IEC EN 55024:2003 ITE Immunity  
- 61000-4-2 ESD  
- 61000-4-3 Radiated Immunity  
- 61000-4-4 EFT  
- 61000-4-5 Surge  
- 61000-4-6 Conducted Immunity  
- 61000-4-11 Voltage Dips and Interruptions  
- IEC/EN 61000-3-2:2005 Harmonics  
- IEC/EN 61000-3-3:2003 Flicker

## Quality System

Manufacturer qualified based on ISO9001:2000

## Signer of Declaration

Mukesh Agarwal

Title: Technical Director

Signature:

[Signature]

St. Paul, Minnesota, USA

Date: 05/27/2010
Regulatory compliance

EMC compliance USA and Canada

FCC Radio Frequency Rules and Regulations
This equipment has been tested and found to comply with the limits for a Class A device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can emit radiated radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NO MODIFICATIONS. Modifications to this device shall not be made without the written consent of 3M Company. Unauthorized modifications may void the authority granted under Federal Communications Commission Rules permitting the operation of this device.

FCC intentional radiator certification
FCC ID: DGFTTS2820
This equipment contains an intentional radiator approved by the FCC under the FCC ID number shown above. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada radio frequency rules and regulations
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numerique de la classe A est conforme a la norme NMB-003 du Canada.
IC: 458A-TTS2820
Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

EMC compliance Europe
This equipment meets the requirements of the RTTE and EMC directives.
CE Conformity

This equipment has been developed and constructed in conformance with the current CE regulations and guidelines:

- 2006/42/EC  Machine Directive
- 2006/95/EC  Low Voltage Directive
- 2004/108/EC  EMC Directive
- 1999/5/EC  R&TTE Directive

Environmental instructions

The 3M™ Intelligent Return contains recyclable materials. The recycling of those materials should be carried out by professional service companies. All individual components can be easily separated for an efficient recycling process.

Please consider the local requirements for recycling materials.

Noise levels (machinery directive)

The equivalent continuous A-weighted sound pressure from the machine is lower than 55 dB(A). Measurements were obtained with the machine running in full load conditions, with all belts running. Normal operation will never have all belts running. All measurements were taken at 1 meter distance, measured from all sides of the machine at a height of 1.6 meters.
Introduction

System overview

The 3M™ Intelligent Return is a complete, fully automated library item check-in and return system. It is designed to help libraries increase automated check-in and circulation and maintain a more accurate catalog, while improving productivity and customer service.

The 3M™ Intelligent Return enables library patrons to return items unassisted by library staff. A receipt printer (standard with Plus, optional with Classic) allows library patrons to print receipts if desired. The system communicates with the library’s Integrated Library System (ILS) to perform check-in procedures that would otherwise be performed by a librarian. An optional sortation system can be configured to sort returned materials based on information provided by the circulation system. An offline mode can be used when the library’s ILS is unavailable, and communications are supported over the library’s local area network (LAN) using 3M Standard Interface Protocol (SIP) 2.0 with extensions for sortation. NCIP and ABC protocols also can be used.

The system uses radio-frequency identification (RFID) to identify RFID-tagged items being checked into the library. An optional barcode scanner also can also be used to process barcode information. The system sends item information to the library’s ILS to perform an immediate check-in transaction, then secures the item’s RFID tag or 3M™ Tattle-Tape™ Security Strip (EM). The system supports 18 different barcode formats.

This illustration shows the two primary 3M™ Intelligent Return models available for use as stand-alone units or in large-system configurations. Intelligent Return Classic and Plus units are used by patrons to check-in and return library items unassisted. The Intelligent Return Staff workstation is used by staff to check-in items in the staff work area. If an optional sortation system is used, specialized conveyors and sorter units are used to automatically sort items as desired by the library.
Introducing the system to library staff and patrons

The introduction of a self-service system fundamentally changes material flow within a library, so 3M strongly recommends that your entire staff should be involved during the preparation phase. Although the system is designed for intuitive use, your staff should be prepared to assist library patrons during system introduction.

3M recommends using this manual for periodic training sessions with library staff, since it contains safety information, machine specifications, commonly used procedures, and other information useful during day-to-day operations. Also, please make this manual accessible when the system is in use so it can serve as a reference guide during operation.
Specifications

Environmental requirements

| Indoor requirements (all models) | • Temperature: 50° F to 104° F [10° C to 40° C]  
|                                 | • Relative humidity: 20% to 60% (non-condensing) |
| Outdoor requirements for Models 2812/2822 patron interface components | • Temperature: –20° F to +120° F [–29° C to 49° C]  
|                                                                               | • Relative humidity: 0% to 85% (non-condensing) |

Note:
If the sun shines directly on a system monitor screen, patrons may have difficulty reading the screen. To prevent this, the library may have to take steps to shade the screen.

Electrical requirements

These models require the following:

• Noise-free and reliable power that conforms to the specifications below.

• A single AC power outlet located in the same room as the staff side (not the outside or side accessible to the public) of the Intelligent Return and within 6 feet [1.82 m] of the Intelligent Return.

• Service that conforms to the following specifications:
  ◆ 100–120 VAC, 1–phase, 60 Hz, 2.5 amps,
  ◆ 200–240 VAC, 1–phase, 50Hz, 1.5 amps,
  ◆ 15–20 amp line.

Network specification

The 3M Intelligent Return communicates with the circulation system over a wired Ethernet connection. The Ethernet cable must meet as a minimum the CAT-5e standard and be terminated with an RJ45 modular plug.
System components

Intelligent Return patron interface

3M™ Intelligent Return patron interfaces provide the tools needed to check-in and return library items unassisted by staff:

- Intelligent Return Classic Model 2810 (indoor) — Enables patrons to check-in and return items inside the building using a simple two-button check-in panel (no monitor). There is no door for the item-return opening.

- Intelligent Return Classic Model 2812 (outdoor) — Enables patrons to check-in and return items from outside the building using a simple two-button check-in panel (no monitor). A motor-driven item-return door opens to receive items, then closes and locks.

- Intelligent Return Plus Model 2820 (indoor) — Enables patrons to check-in and return library items from inside the building using a touch screen monitor that can provide guidance in several languages.

- Intelligent Return Plus Model 2822 (outdoor) — Enables patrons to check-in and return library items from outside the building using a four-button check-in panel and a monitor that can provide guidance in several languages. A motor-driven item-return door opens to receive items, then closes and locks.

- An optional barcode scanner is mounted directly above the item-return door, enabling patrons to scan items on the front shelf.

- The antenna for the front shelf RFID reader is located in the barcode scan area, enabling both barcode scanning and RFID recognition on the front shelf.

- The receipt printer (standard with Plus, optional with Classic) does not require toner or ribbons, but does require a specific type of thermal print paper. See Receipt printer paper on page 33.
Intelligent Return components

The 3M™ Intelligent Return is equipped to automatically perform all necessary library item check-in and return functions. Primary components are described below:

• The staff monitor can be mounted on a nearby wall or post. This monitor is used by staff to configure, monitor, and control the system.

• The conveyor carries each returned item from the scanning area into the system. The item then travels through the optional 3M™ Resensitizer Model 375, if used, and into a bin or optional sortation system.

• RFID tags attached to library items are encoded with item identifiers using a 3M™ Staff Workstation or Conversion Station. This information is used by the 3M™ Intelligent Return to check-in items.

• The power on/off switch controls power to all components except for the staff monitor and optional sortation system.

• When an item with a desensitized 3M™ Tattle-Tape™ Security Strip attached passes through the optional resensitizer on the conveyor, the strip attached to the item will automatically be resensitized by the system.

• The electronics enclosure houses primary system control components:
  ♦ The system computer is used to configure and control check-in and other processing functions.
  ♦ The system is connected to the library’s automated circulation system via the library’s local area network (LAN).

• The receipt printer (standard with Plus, optional with Classic) does not require toner or ribbons, but does require a specific type of thermal print paper. See Receipt printer paper on page 33.
Intelligent Return Staff components

The 3M™ Intelligent Return Staff Model 2830 enables check-in and return of items by library staff in the staff work area. Primary components are described below:

- The conveyor carries each returned item from the scanning area into the system. The item then travels through the optional 3M™ Resensitizer Model 375, if used, and into a bin or optional sortation system.
- RFID tags attached to library items are encoded with item identifiers using a 3M™ Staff Workstation or Conversion Station. This information is used by the 3M™ Intelligent Return to check-in items.
- The power on/off switch controls power to all Intelligent Return Staff components.
- When an item with a desensitized 3M™ Tattle-Tape™ Security Strip attached passes through the optional resensitizer on the conveyor, the strip attached to the item will automatically be resensitized by the system.

**CAUTION**
A magnetic library item could be permanently damaged by the resensitizer if an item’s RFID tag is faulty or damaged, or if circulation system data is faulty.

- The electronics enclosure houses primary system control components:
  - The system computer is used to configure and control check-in and other processing functions.
  - The system is connected to the library’s automated circulation system via the library’s local area network (LAN).
- The optional barcode scanner is mounted on the monitor pedestal, enabling library staff to scan items on the front shelf scan area.
- The optional staff printer at the front of the workstation is used to print various types of staff slips. The printer does not require toner or ribbons, but does require a specific type of thermal print paper. See Staff printer paper on page 33.
Operating guidelines

Using the staff monitor

The 3M™ Intelligent Return includes a wall- or post-mounted monitor, keyboard and mouse for staff use only. The staff monitor displays system information without interrupting system availability to patrons.

Note:
The 3M™ Intelligent Return Staff Model 2830 does not include a staff monitor since the unit is used only by library staff.

The numbered descriptions refer to the numbered areas shown.

1. **Refresh Status** button used to update information.

2. **System Status** block displays the most urgent warning or failure. For example, if a device fails and the printer paper is low, the block appears red because device failure is more severe.
   - Green indicates normal operation.
   - Yellow indicates system warnings: offline, bin full, bin missing, auto offline, printer paper low. The system is operational and will automatically recover when the condition is corrected.
   - Red indicates system failures: ILS communication failure or device failure. The system is NOT operational, will NOT automatically recover, and requires immediate attention.

3. **General System Information** area provides access to system information, such as software version.

4. **Advanced Options** menu provides access to 1) system shutdown without requiring an Admin Card and 2) staff interface configuration options.

5. **Main Display** area displays the **System Activity** screen, which automatically updates as events occur.
System shutdown on the staff monitor

Use the keyboard or mouse to shut down the system on the staff monitor:

1. Before you start to shut down the system, make sure that no items are being processed.
2. On the 3M™ Intelligent Return staff monitor, use the keyboard or mouse to select Advanced Options.
3. Select Shut down system.
4. Wait until the staff monitor goes dark, then move the Intelligent Return power on/off switch next to the power cord connector to the OFF position.
5. If used, turn off the optional sorter system.

Note:
Turn off the optional sorter system per library policy and when the sorter is being cleaned, adjusted, maintained, or repaired. 3M sorter systems are designed for low power consumption in a standby mode.
System shutdown on the Administration screen

1. Before you start to shut down the system, make sure that no items are being processed.
2. Scan the Barcode/RFID Admin Card, then go to the Administration screen and select Shutdown.
3. Wait until the staff monitor goes dark, then move the power on/off switch next to the power cord connector to the OFF position.
4. If used, turn off the optional sorter system.

Note:
Turn off the optional sorter system per library policy and when the sorter is being cleaned, adjusted, maintained, or repaired. 3M sorter systems are designed for low power consumption in a standby mode.

System startup

1. If used, turn the optional sorter system ON.
2. Turn the 3M™ Intelligent Return ON using the power on/off switch located next to the power cord connector.
3. When return system software has loaded, follow instructions on the return system screen.
General maintenance

Fill patron receipt printer paper

Use the following procedure to load a new roll of paper in the receipt printer.

**CAUTION**

- Do not touch the inside of the print head with your hand or fingers or any metal tool.
- Use only paper approved by 3M — Use of other paper may void warranty and in addition result in reduced print head life, inferior print quality, or other unforeseen problems.

**Note:**
In normal operation, the printer will clear any paper from inside the printer head and jams will be rare. If a paper jam occurs, see Clearing a paper jam in the receipt printer on page 30.

**Paper loading tips**

- Do not insert paper with a jagged, fuzzy, or bent edge, as this could cause a paper jam.
- Do not touch or hold the paper during auto-loading or printing, otherwise paper feeding problems, skewing, or a paper jam may occur.
- If slack occurs in the paper roll, rewind the roll to take up any slack. Make sure paper is routed under the tension bar.
- If the paper appears slanted, correct the roll position or remove and reinstall the paper in the correct position.
- After paper loading, the printer will enter the “print ready” state. Note that if any data is present in the print buffer, it will begin printing immediately after you have finished loading the paper.
To load the receipt printer paper

1. Turn the printer power switch OFF.

2. Pull the printer drawer out to access the printer and paper dispenser.

3. Locate the latch pin and hinge pin (see figure) near the base of the paper dispenser. The dispenser door swings open or closed on the hinge pin. The latch pin holds the dispenser door in the closed (upright) position.

4. Gently lift the latch pin up to unlatch the dispenser door, then swing the door down into the open position.

5. Remove the empty paper roll from the spindle and rollers.
6. Install the new paper roll onto the spindle and rollers so the paper will unwind from the top.

7. Lift and close the side of the paper dispenser, then click the latch pin into place.

8. Turn the printer power switch ON.

9. Thread the front edge of the paper under the tension bar and then insert it into the printer paper feeder. The printer will pull the paper into the printer, ready for printing.

10. Gently slide the printer drawer forward until it firmly seats in its operating position.
Fill staff printer paper

Use the following procedure to load a new roll of paper in the staff printer.

To replace the paper

1. Squeeze the open button and lift the printer cover.
2. Place the paper roll in the printer so the paper unwinds from the bottom.
3. Pull the front edge of the paper out until it is past the front edge of the printer.
4. Close the printer cover.

Cleaning system monitors

Use pre-moistened towelettes that are sold specifically for monitor cleaning. If these are not available, you can use a non-solvent based cleaner to dampen a soft cloth, but use it very sparingly.

Cleaning outdoor components

Use only approved cleaning products for faceplate components (metal, plastic, glass) exposed to outdoor environments.

Cleaning component exteriors

System components can become dirty with normal use and may require cleaning. To clean component exteriors, dampen a soft cloth with water or a mild cleaning solution and gently wipe away dirt from the affected areas.
Solving problems

Use the following procedures to perform basic troubleshooting on the 3M™ Intelligent Return:

System power problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>System will not power on.</td>
<td>• Ensure that there is power to the system and that the system power switch is on.</td>
</tr>
<tr>
<td></td>
<td>• Confirm that power lights of components (monitors, printers, etc.) are lit.</td>
</tr>
<tr>
<td></td>
<td>• If no component power lights are lit, ensure that the power cable is plugged in and there is power to the system. If the outlet is dead, have a qualified technician check the circuit breaker.</td>
</tr>
<tr>
<td>System power appears to be on, but only partially.</td>
<td>• If some power lights appear lit while others are not, ensure that all power cables are plugged into their designated connectors. Ensure that any power switches for individual components are switched on.</td>
</tr>
<tr>
<td>OR: System appears to be locked-up. OR: System won’t do anything.</td>
<td>• If the system is equipped with a sorter, make sure the USB cable from the sorter is connected to a system computer USB port.</td>
</tr>
<tr>
<td></td>
<td>• If the system is equipped with a sorter, make sure that any emergency stop mechanism(s) on the sorter are not engaged. (See sorter documentation.)</td>
</tr>
</tbody>
</table>

System messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Probable cause/solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bin on the default sort route is missing (or full)</td>
<td>Indicates that the default route bin has been moved out of alignment or is full. Make sure that the bin is properly aligned and not full since a smaller sortation system will cease operation if a single default sort route bin is not able to accept items. The message will automatically clear and the system will automatically resume operation when default bin status has been corrected.</td>
</tr>
<tr>
<td>Bin # is full OR Bin # is missing</td>
<td>Indicates that a bin has either become full or is missing from the system. When this condition occurs, items will be redirected to the default sort route until the bin is restored. The message will disappear automatically when bin status has been corrected.</td>
</tr>
<tr>
<td>Motor controller error</td>
<td>Indicates that a sortation system conveyor motor has entered an error state, most often due to an item jam or an E-Stop button being pressed. To correct this condition, remove any jammed items and/or reset the E-Stop button (wait at least 5 seconds before resetting the button).</td>
</tr>
<tr>
<td>Sorter is offline</td>
<td>Indicates that the sortation system is currently offline. Large systems typically display additional details on offline system status.</td>
</tr>
<tr>
<td>Auto offline mode</td>
<td>Indicates that communication with the circulation system has been interrupted and the system has transitioned from transmitting to storing transaction data.</td>
</tr>
</tbody>
</table>
## Monitor or sound problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
</table>
| Monitor will not power on.           | Ensure that the monitor’s power switch is on.  
  • Confirm that the monitor’s power light is lit.  
  • If the light is not lit, ensure that the power cable is plugged into its designated power source. |
| Graphics too large or small.         | Check the Windows Display Properties to ensure that the screen area is set to 1024 by 768 pixels. |
| Touch screen unresponsive            | Place a service call to 3M.                                                        |
| No sound or sound too quiet or loud. | Check the Windows Volume properties to ensure that the system volume is not muted or set too high or low. |

### ILS login and communication problems

Problems encountered during the ILS login process can be caused by changes to the host computer installation setup and circulation system changes.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
</table>
| Unable to login to the host computer.| 3M may ask you to monitor the login process to determine if the Intelligent Return is attempting to login to the host.  
  To set up session logging:  
  1. On the Intelligent Return System Manager Support tab, click the Log Level box and then click the requested log level (All preferred).  
  2. Click Set Level, and then restart the system. |
| Communications checklist.            | • Verify that the data cable is properly connected to the Intelligent Return network connector.  
  • Verify that the host is operating properly and is capable of accepting a connection from the Intelligent Return.  
  • If a terminal server is used, verify that it is running and is capable of accepting a connection from the Intelligent Return.  
  • Check to see if any network passwords have changed.  
  • Check to see if the path or any other accesses to the network or the host have changed.  
  • Check whether the Intelligent Return was improperly turned off or otherwise disconnected from the host without properly logging off. This could leave the host connection active, which would prevent the Intelligent Return from logging in until the port is reset.  
  • Check whether the host port needs to be reset to allow a connection from the Intelligent Return.  
  • Check whether the Intelligent Return gets disconnected from the host without anyone initiating the log off process. The host computer may be dropping the connection. |
### Check-in problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item ID appears as title.</td>
<td>• Check ILS connection; system is most likely offline.</td>
</tr>
<tr>
<td></td>
<td>• Try items that have been properly checked out. The ILS may not allow check-in of items that have not been checked out.</td>
</tr>
<tr>
<td>All items are appearing as unknown.</td>
<td>• Ensure that items (barcode, RFID) are being properly identified.</td>
</tr>
<tr>
<td></td>
<td>• Check validators.</td>
</tr>
</tbody>
</table>

### Barcode scanner problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanner won’t start and a Scanner Fails to Initialize message appears during startup.</td>
<td>Place a service call to 3M.</td>
</tr>
<tr>
<td>Scanner has a poor read rate.</td>
<td>Check for dust and fingerprints on the scanner window and wipe it with a clean, dry cotton-tip swab or cotton cloth if required.</td>
</tr>
<tr>
<td>Barcodes read, but some or all items cannot be checked in.</td>
<td>A barcode filter may be required to ensure that data sent to the host matches the item information stored in the circulation system database.</td>
</tr>
<tr>
<td>Barcodes cannot be read.</td>
<td>Make sure that:</td>
</tr>
<tr>
<td></td>
<td>• Barcodes are not worn, scratched, dirty, or damaged, covered by tape, etc.</td>
</tr>
<tr>
<td></td>
<td>• Items are placed with barcodes face up and under the scan line.</td>
</tr>
</tbody>
</table>

### RFID reader problems

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following message appears when the application starts: “RFID reader failure; device not found on COM2”</td>
<td>Place a service call to 3M.</td>
</tr>
<tr>
<td>Reader does not read tags but the message above does not appear.</td>
<td>Ensure that the library’s tag data formats are enabled and configured correctly.</td>
</tr>
<tr>
<td>Symptom</td>
<td>Possible solution</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RFID tags read, but some or all items cannot be checked in.</td>
<td>An item filter may be required to ensure that data sent to the host matches the item information stored in the circulation system database.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong></td>
</tr>
<tr>
<td></td>
<td>Items defined as sets are processed and accepted even when a set is incomplete.</td>
</tr>
<tr>
<td>Reader operation is intermittent</td>
<td>Ensure the following:</td>
</tr>
<tr>
<td></td>
<td>• That tags are not disabled or blank.</td>
</tr>
<tr>
<td></td>
<td>• That a book’s jacket does not include metal foil, which may affect tag reading.</td>
</tr>
<tr>
<td></td>
<td>• That tags are placed within the read range.</td>
</tr>
<tr>
<td></td>
<td>• That items are checked in one at a time and that multiple items are not stacked.</td>
</tr>
</tbody>
</table>

**Receipt printer problems**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer won’t print.</td>
<td>• Ensure that printer paper is properly loaded, properly aligned, and not jammed.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that the printer has power (LEDs should be lit).</td>
</tr>
<tr>
<td></td>
<td>• Ensure that the USB cable is connected to both the printer and the computer.</td>
</tr>
<tr>
<td></td>
<td>• Verify that the printer is properly installed in Windows/Settings/Printer and Faxes.</td>
</tr>
<tr>
<td></td>
<td>• Verify that the correct printer is selected in the Intelligent Return System Manager configuration.</td>
</tr>
<tr>
<td></td>
<td>• Verify that the problem is not with the printer connection or hardware by trying to print a test page:</td>
</tr>
<tr>
<td></td>
<td>a) From the <strong>Start</strong> menu, select <strong>Printers and Faxes</strong>.</td>
</tr>
<tr>
<td></td>
<td>b) Open the print queue from the printer icon for the printer that is not printing and verify that there are no pending jobs in the print queue. Pause and delete any print jobs that appear to be halting printer operation.</td>
</tr>
<tr>
<td></td>
<td>c) From the <strong>Printer</strong> menu, select <strong>Properties</strong> and press the <strong>Print Test Page</strong> button.</td>
</tr>
</tbody>
</table>
Clearing a paper jam in the receipt printer

In normal operation, the receipt printer will clear any paper from inside the printer head and jams will be rare. If a paper jam occurs, use the following instructions to clear the paper jam.

**CAUTION:**

- Do not touch the inside of the print head with your hand or fingers or any metal tool.
- Use only paper approved by 3M — Use of other paper may void warranty and in addition result in reduced print head life, inferior print quality, or other unforeseen problems.

To clear a paper jam in the receipt printer

1. Pull the printer drawer outward to access the printer and paper dispenser.
2. With power connected, cycle the printer power switch (turn OFF – ON – OFF) to reset the printer.
3. Open the printer by pressing the print head latch lever 0.25 in [0.5 cm] clockwise. This will unlatch the print head and the lower jaw will open downward.
4. Carefully remove all the paper from the paper jam.
To close the receipt printer

CAUTION

- Do not force the jaws. Resistance to closing is an indication that the linkage is not aligned correctly to allow closing. Attempting to force the printer jaws closed can cause irreparable damage the printer, requiring it to be replaced.

- Do not touch the inside of the print head with your hand or fingers or any metal tool.

1. Lift the printer upper jaw.

2. Lift the printer lower jaw. The latch lever will engage the pin on the lower jaw.

3. Lower the upper jaw to meet the lower jaw.

See Fill patron receipt printer paper on page 22 for paper-loading instructions.
Warranty

Effective 12-12-05

One Year Library Systems Product Performance Guarantee: Subject to the Limitation of Liability below, 3M guarantees your satisfaction with the performance of any 3M Library System Product for 12 months from the date of installation provided that a) you are the original purchaser; b) you have executed a one (1) year 3M Service Agreement for maintenance of the Library System product; and c) the product has not been subjected to abuse, misuse, accident or neglect. Performance means the product meets 3M published product specifications. If you are not completely satisfied with the performance of your Library System Product, you may return the Library System product for a prompt refund. 3M will pay all reasonable de-installation and shipping charges to return the product to 3M. Note that all claims under this guarantee must be submitted to 3M within 12 months from the date of installation of the 3M Library Systems Product. Failure to submit a claim within this time frame will invalidate this guarantee. IMPORTANT: Consumables and non-3M branded products are excluded from this Guarantee.

Warranty and Limited Remedy for Non-Software Library Systems Products Not Covered by Performance Guarantee: Unless stated otherwise in 3M product literature or packaging, 3M warrants that each 3M Library Systems Product meets the applicable specifications for a period of ninety (90) days from the date of shipment (or, in the case of hardware installed by 3M, from the date of installation). Any warranties related to 3M software are contained in separate 3M software licenses. Consumables and non-3M branded products are excluded from this Warranty and Limited Remedy.

3M MAKES NO OTHER GUARANTEES, WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. You are responsible for determining whether the 3M product is fit for a particular purpose and suitable for your application. If the 3M product is defective within the warranty period and provided that a) the product has not been subjected to abuse, misuse, accident or neglect and b) you have notified 3M within thirty (30) days after the defect was discovered, your exclusive remedy and 3M’s and seller’s sole obligation will be, at 3M’s option, to replace or repair the defective 3M product.

Limitation of Liability: EXCEPT WHERE PROHIBITED BY LAW, 3M AND SELLER WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGE ARISING FROM 3M LIBRARY SYSTEMS, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL, REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING WARRANTY, CONTRACT, NEGLIGENCE OR STRICT LIABILITY.

Guarantee and Warranty Claims: For guarantee and warranty claims, and for service, contact our service representatives at 1-800-328-0067
Ordering supplies

Receipt printer paper

Refer to the following information when ordering paper for the receipt printer.

<table>
<thead>
<tr>
<th>Description</th>
<th>Printer paper, thermal contrast coating (one side)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M P/N</td>
<td>75-4700-3171-9</td>
</tr>
<tr>
<td>Width</td>
<td>3.15 inches [80 mm]</td>
</tr>
<tr>
<td>Diameter</td>
<td>8.0 inches [203 mm]</td>
</tr>
<tr>
<td>Length</td>
<td>1,750 ft. [533.4 m] per roll; 4 rolls per carton</td>
</tr>
</tbody>
</table>

Staff printer paper

Refer to the following information when ordering paper for the staff printer.

<table>
<thead>
<tr>
<th>Description</th>
<th>Printer paper, thermal contrast coating (one side)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M P/N</td>
<td>78-8126-7827-0</td>
</tr>
<tr>
<td>Width</td>
<td>3.15 inches [80 mm]</td>
</tr>
<tr>
<td>Diameter</td>
<td>4.0 inches [100 mm]</td>
</tr>
<tr>
<td>Length</td>
<td>410 ft. [125 m] per roll; 24 rolls per carton</td>
</tr>
</tbody>
</table>
3M Service

Information to gather
Before you call, please have the following information available:

- Name, address, and telephone number of your facility
- Model number(s) of equipment you are calling about—and, if applicable, other equipment installed
- Your question(s), or if applicable, a description of the problem or issue you want addressed

3M Service phone numbers
For questions regarding your system, call one of the following numbers.

<table>
<thead>
<tr>
<th>In the United States</th>
<th>In Canada</th>
<th>In other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-800-328-0067</td>
<td>English 1-800-268-6235</td>
<td>Call your local 3M office.</td>
</tr>
<tr>
<td></td>
<td>Français 1-800-567-3193</td>
<td></td>
</tr>
</tbody>
</table>

3M Library Systems Web Site
The 3M Library Systems Web site can be located at http://www.3M.com/library.
For additional information in the United States about 3M Library Systems, go to http://www.3M.com/us/library.

3M Library Systems
3M Center, Building 225-4N-14
St. Paul, MN 55144-1000
www.3M.com/library