



THE POWER OF AUTOMATION.
MADE SIMPLE.

L60 User Guide

Preface

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Acknowledgements

The DOSIS operating system is designed by Manchac Technologies, LLC. The DOSIS L60 cabinet is designed and manufactured by Manchac Technologies, LLC.

Disclaimer

The information contained herein is considered accurate at the time of publication. Manchac Technologies, LLC reserves the right to make changes to the equipment or manual at anytime without notice.

Patent

Patent Pending

Customer Service

Customer Service office hours are Monday through Friday from 8:00AM to 5:00PM Central Time.

During office hours, dial 1-877-626-2422 (877-MANCHAC)

After Hours: 318-277-4811 or 318-880-4703

Safety Considerations

Definitions for Safety Awareness

The following definitions are used throughout Manchac Technologies, LLC documentation to assist you in understanding important notes and safety messages to which you need to be aware. Please read and understand how each term is used before operating machinery or running the software.

accident - An incident that results in unintended harm.

harm - Injury, death, or property damage.

incident - An unintended and undesired event that has the potential to cause harm.

hazard - A potential source of harm.

intent

may: This word is understood to be permissive.

shall: This word is understood to be mandatory.

should: This word is understood to be advisory.

Safety messages

Word messages that provide information primarily about the nature of a hazardous situation the consequences of not avoiding a hazardous situation, and/or method(s) for avoiding a hazardous situation, or that direct readers to such information. Safety symbols and other graphics may be used to supplement or substitute for part or all of a word message.

Safety alert symbol



A

A symbol that indicates a potential personal injury hazard. It is composed of an equilateral triangle surrounding an exclamation mark. The symbols are used on various parts of DOSIS to remind you of potential dangers from moving parts on the machine.



B



C

(A) for use with DANGER signal word (white triangle, red exclamation mark, and red background)



D



E

(B) for use with WARNING signal word (black triangle, orange exclamation mark)



F



G

(C) for use with CAUTION signal word (black triangle, yellow exclamation mark)

(D) and (E) for use with DANGER, WARNING, or CAUTION signal words or no signal word (yellow background, black border, and black exclamation mark. (E) has a yellow border around the black border.)

(F) and (G) for use with DANGER, WARNING, or CAUTION signal words or no signal word.

Signal words

A word that calls attention to a safety message or messages, or a property damage message or messages, and designates a degree or level of hazard seriousness. The signal words in this document are “DANGER,” “WARNING,” “CAUTION,” and “NOTICE.”

DANGER - Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

WARNING - Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION - Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used without the safety alert symbol as an alternative to “NOTICE.”

NOTICE - “NOTICE” is the preferred signal word to address practices not related to personal injury. The safety alert symbol shall not be used with this signal word. As an alternative to “NOTICE”, the word “CAUTION” without the safety alert symbol may be used to indicate a message not related to personal injury.

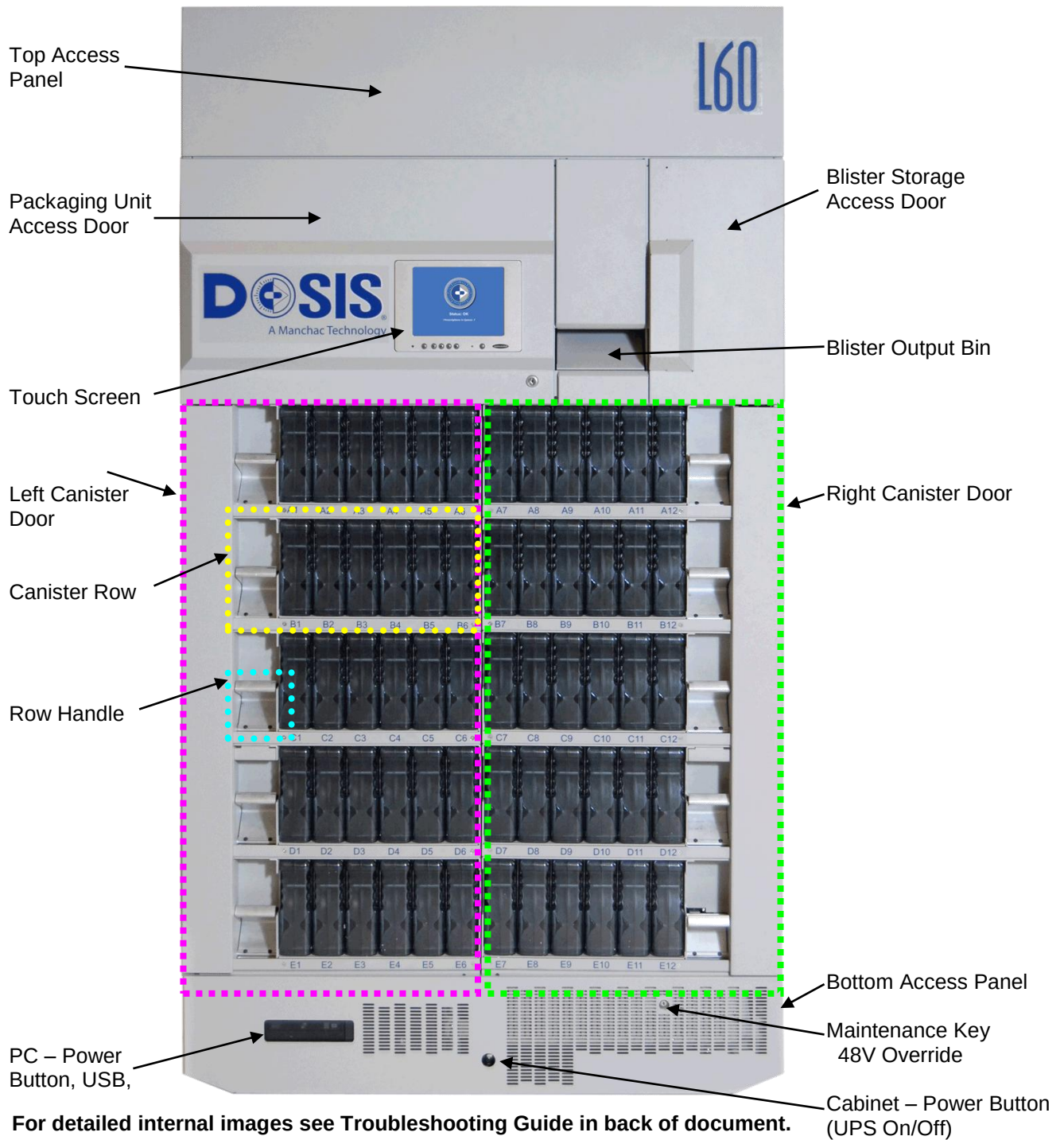
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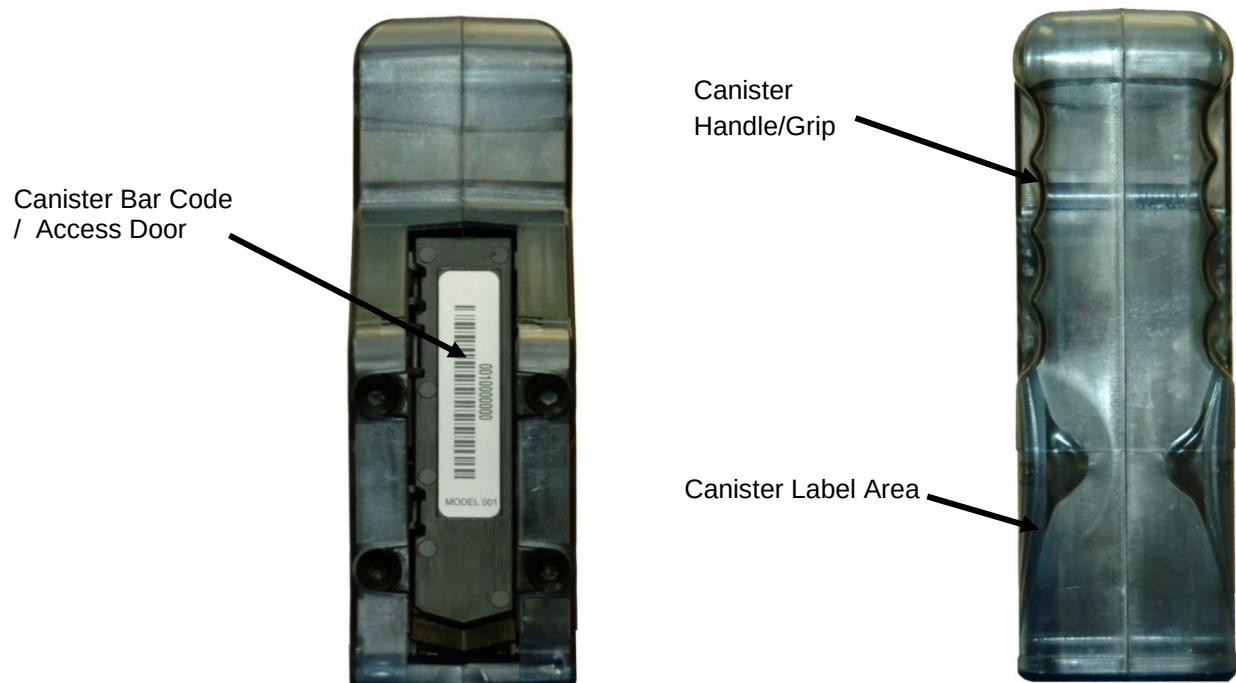
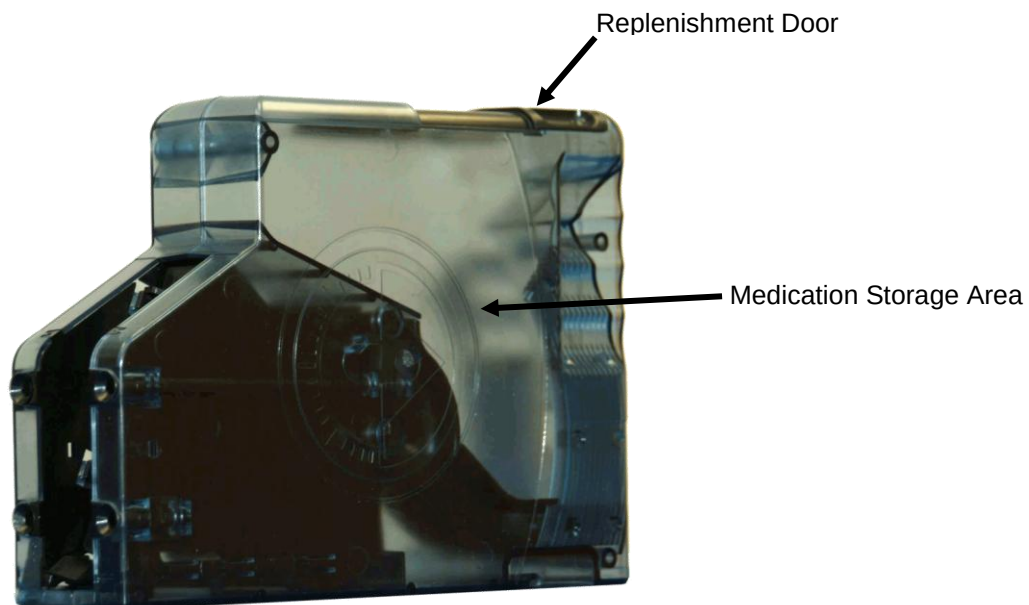
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System Physical Overview - Chapter 1

Cabinet's Physical Components



The Canister



External Components

External Label Printer



Bar Code Scanner



Understanding DOSIS- Chapter 2

Using DOSIS

There are two basic ways DOSIS can work for you: pre-packing (a.k.a. Prepacking) and/or on demand. You can use DOSIS in either mode, or use a combination of the two.

No matter which mode you operate in, there are common tasks that need to be completed and monitored.

Realizing the benefits of DOSIS involves understanding how you as a user should interact with the unit on a daily basis and keep DOSIS running smoothly to enhance your productivity and workflow. Just as a printer uses toner and paper as it prints, DOSIS uses blister cards, blister lids, prescription labels and drugs to fill the prescriptions. Monitoring these levels and keeping DOSIS stocked with consumable materials is essential to a successful day or shift of filling prescriptions.

Monitoring Consumable Stock

Both the HMI and Web Access have indicators to show the current level of blister cards, lids and labels. The Material Status column on the Web Access Dashboard quickly allows you to know when stock material is low and needs to be restocked. This status is always visible no matter which screen is being displayed on the Web Access.

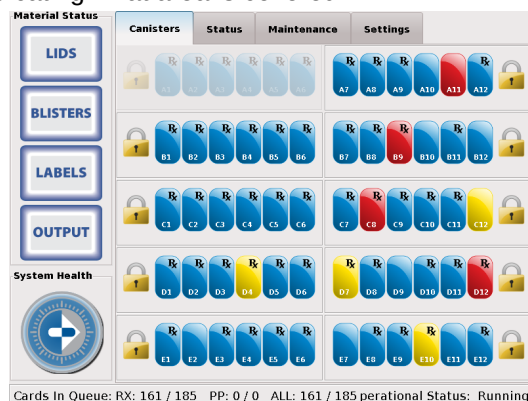
- **BLUE** == OK / good
- **YELLOW** == near insufficient quantity
- **RED** == insufficient quantity or needing immediate attention.
- **GREY** == system is determining the above statuses



Likewise on the touch screen of DOSIS, the Material Status in the HMI is indicated with a shaded box around the word indicating what area is covered.

The colors to indicate the status are:

- **BLUE** == OK / Good
- **YELLOW** == Needs Attention Soon
- **RED** == Immediate Attention Required



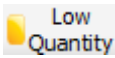
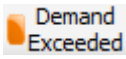
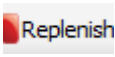
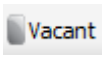
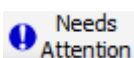
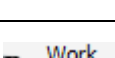
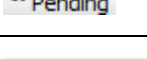
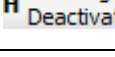
You can also check this by pointing to Reports and clicking on System Health from the web access Menu Bar or clicking on the System Health icon on the Web Access Dashboard.

System Alerts		
Number	Instructions	Status Code
0	Label printer is out of labels. Open Packager door and replenish label roll.	40040
Operational Status		
Cards in Queue		Operational Status
Rx: 6 / 6 Prepack: 0 / 0 Total: 6 / 6		stop

Blister cards and lids are easily and quickly stocked by accessing their locations through the HMI.

The lid storage unit can hold approximately 500 lids. The blister card storage unit holds approximately 300 cards. A label roll is approximately 1,000 labels.

Canister inventory can be monitored at a glance on both the cabinet screens on the HMI and the Web Access. The below color legend can be found at the bottom of the cabinet screen on the Web Access.

CANISTER SYMBOLS		
Symbol	Color / Description	Explanation of Symbol
	Blue	Canister is operational and has sufficient inventory
	Yellow	Canister is operational but the inventory is below the "low level" value.
	Orange	Canister is operational but the inventory that the canister contain is not sufficient based on the number of pill being requested for dispensing.
	Red	Canister is operational but the inventory is below thirty (30) pills and soon will no longer be able to service dispensing request.
	Light Grey	Canister not present.
	Black	Canister is recognized but does not have a drug associated.
	Blue w/ White Explanation	"Needs Attention" occurs when too many counting discrepancy have occurred on a canister. A user needs to inspect the canister based on the system alert.
	Orange w/ Black Explanation	"Canister Broken" only occurs when Manchac Support Team deems a canister to be unusable
	'Rx' Text	"Work Pending" appears on any canister that has either a prescription or a prepack pending for that canister. This indicator will be displayed on top of one of the colored icons.
	'H' Text	"Drug Deactivated" (a.k.a. on hold) is when a user decides to temporarily take the drug out of the active drug list for filling purposes. This indicator will be displayed on top of one of the colored icons.
	'T' Text	"Needs Training" is when the 'T' is overlaying a canister. This new drug is in the canister and must be validated before the system can accept PMIS request for the drugs in that canister. Call technical support when this occurs

Stocking Supplies

Adding Blister Cards

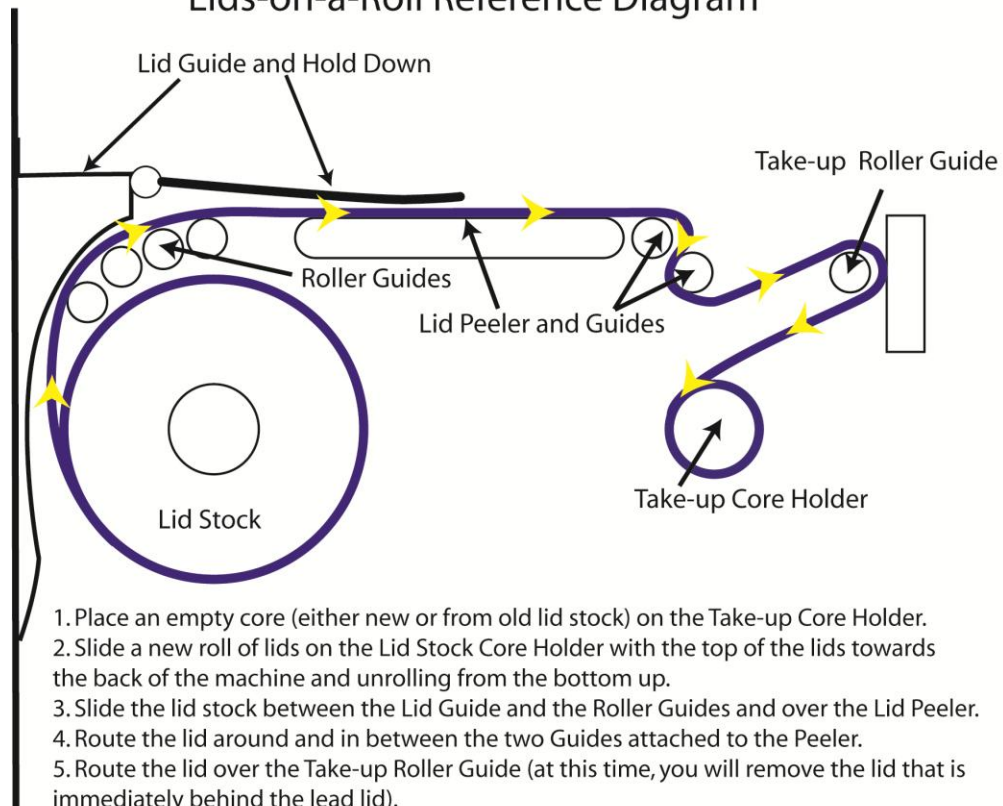
1. Open the Blister Card Door using the HMI.
2. Stack Blister Cards with the top towards the back of the cabinet.
3. Close the Blister Card Door.



Replacing / Adding Lids

1. Open the Packaging Unit Door using the HMI.
2. Follow the instructions within the below diagram. Note this diagram is also available on the inside of the Packaging Unit Door.

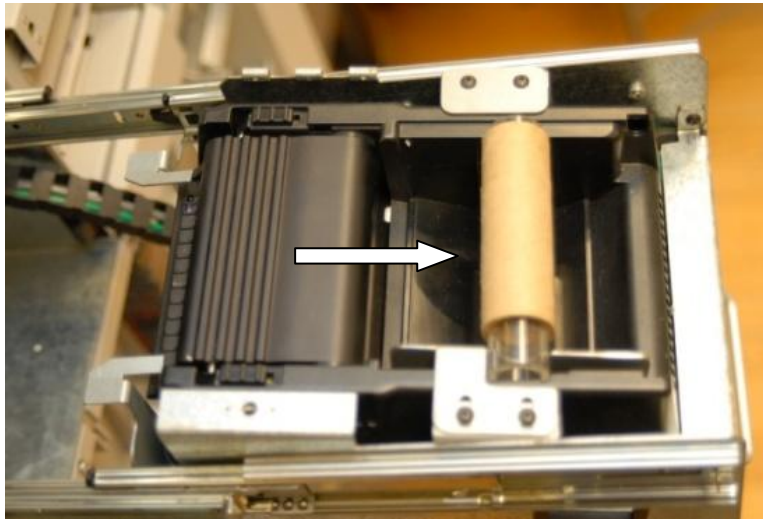
Lids-on-a-Roll Reference Diagram



1. Place an empty core (either new or from old lid stock) on the Take-up Core Holder.
 2. Slide a new roll of lids on the Lid Stock Core Holder with the top of the lids towards the back of the machine and unrolling from the bottom up.
 3. Slide the lid stock between the Lid Guide and the Roller Guides and over the Lid Peeler.
 4. Route the lid around and in between the two Guides attached to the Peeler.
 5. Route the lid over the Take-up Roller Guide (at this time, you will remove the lid that is immediately behind the lead lid).
 6. Continue feeding the lid to the Take-up Core Holder and, using the removed lid's adhesive side, secure the leading end to the Take-up Core ensuring the roll is taught.
3. Close the Packaging Unit Door.

Restock Prescription Labels in DOSIS

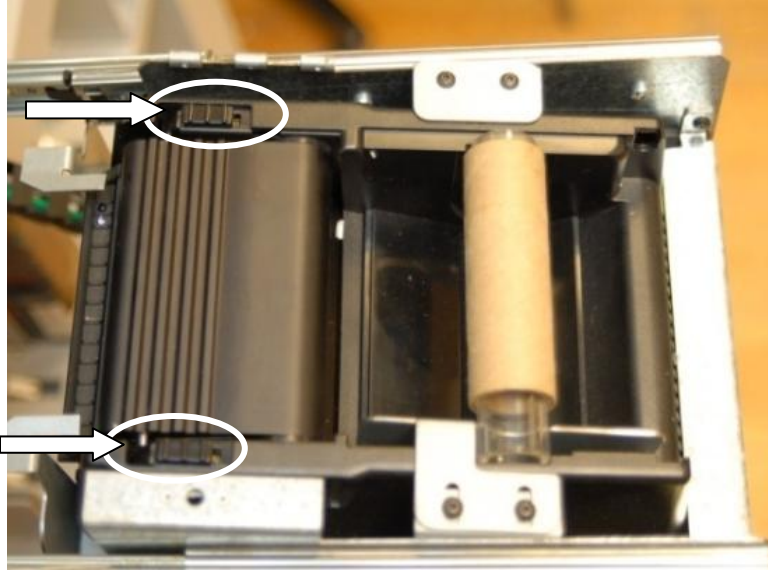
1. Use the printer drawer handle and fully pull the printer out from the cabinet.
2. Remove the cardboard core from the plastic roll guide and keep it for later use.



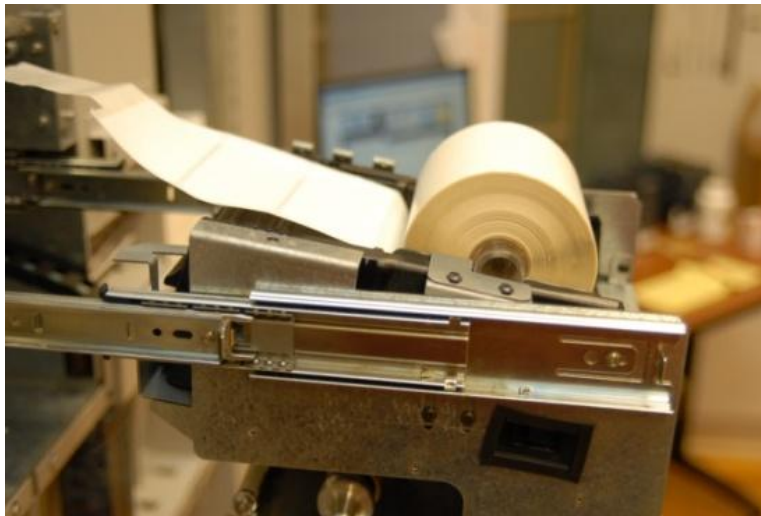
3. Remove the take-up spool from under the printer by pulling the retaining knob off and pulling on the spent leader and core. Note, some models do not have a retaining knob. Throw old liner and cardboard core away.



4. Open the print head by pushing the release latches towards the back of the printer.

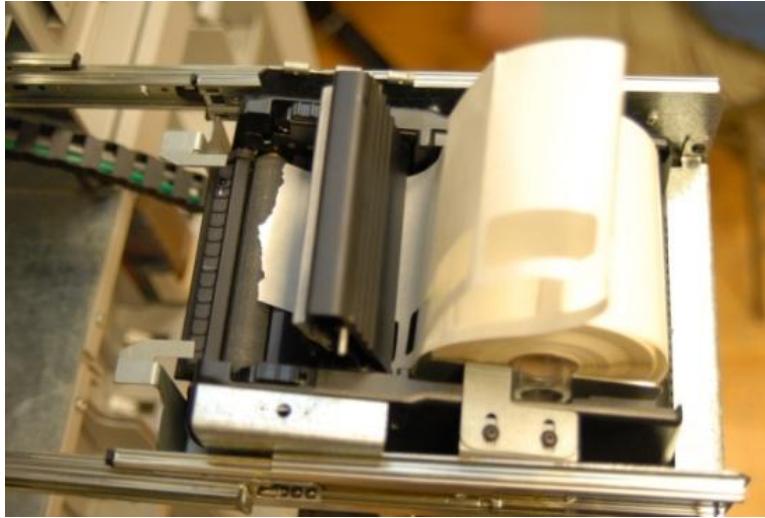


5. Put the plastic label roll guide through the core of the labels and place the roll into the printer with the leader unwinding from the bottom of the roll towards the inside of the cabinet. *Note based on the label manufacture the clear plastic tube may not be required.*

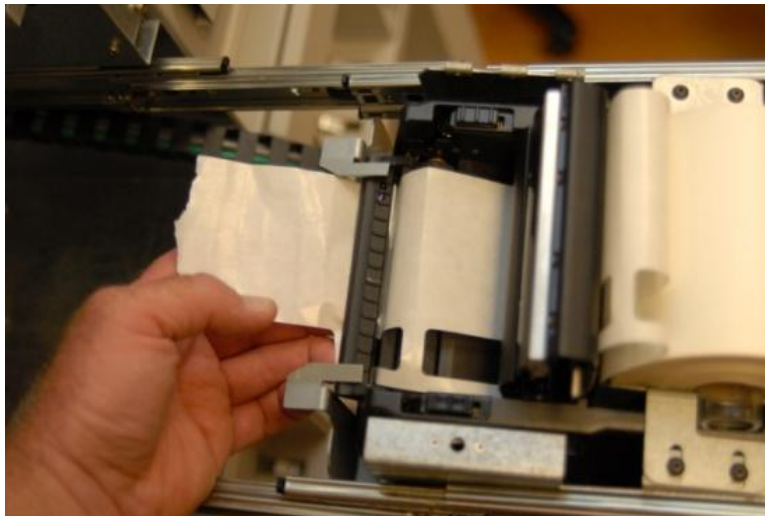


6. Remove 6-8 labels from the leader and throw them away.

7. Feed the media under the print head.



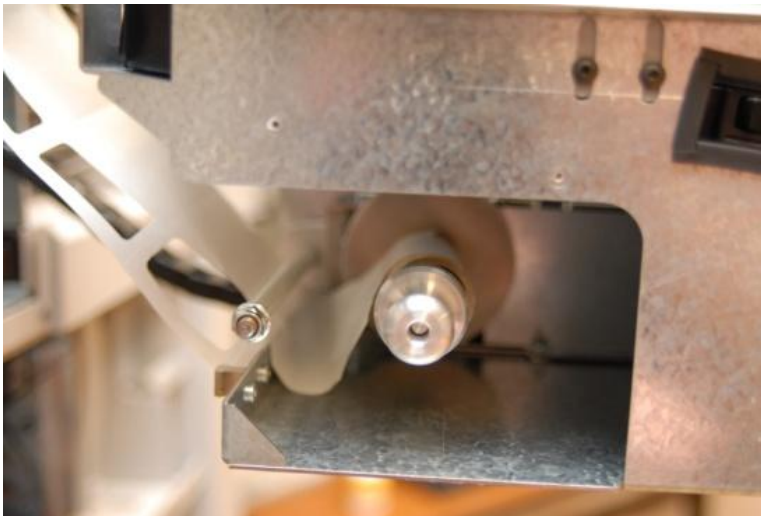
8. Feed the leader through the peeler by lifting the peeler up to expose the slot. Continue holding the peeler up as you feed the leader through it.



9. Place a label on the end of the leader and secure it to the old core from Step 2.



10. Ensure the leader is under the tension bar and push the core onto the take up reel and put the retaining knob back in place.



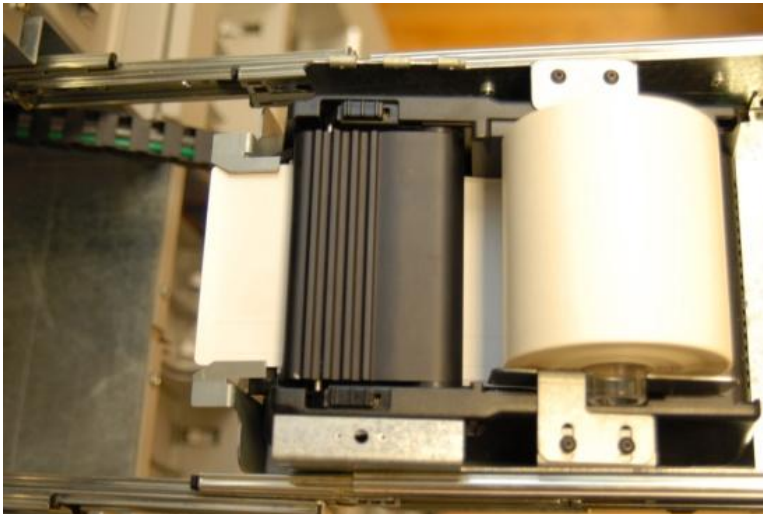
11. Press the take-up spool switch until the media leader is tight and the take-up spool quits turning.



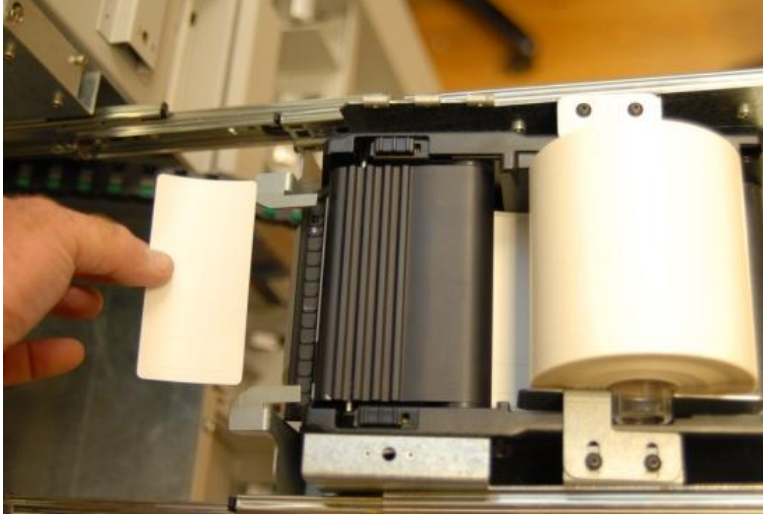
12. Test the printer by pressing the Feed button on the front of the printer.



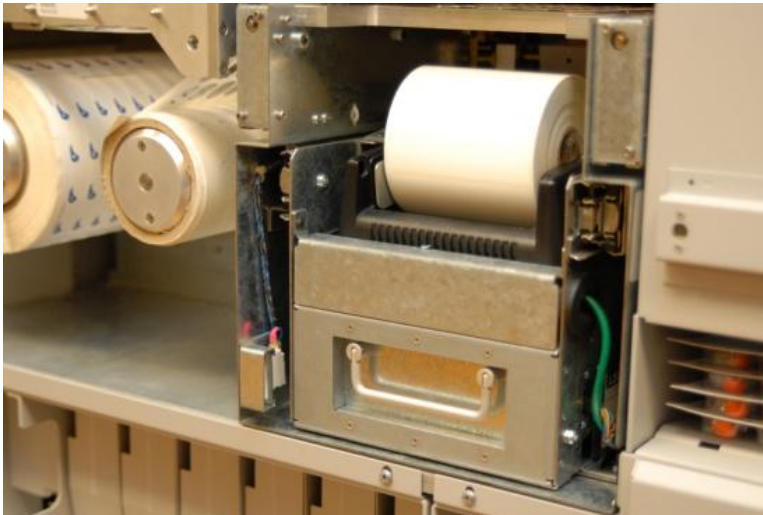
13. The label should feed out and peel.



14. Remove the label and tighten the tension by depressing button on the side as illustrated below.



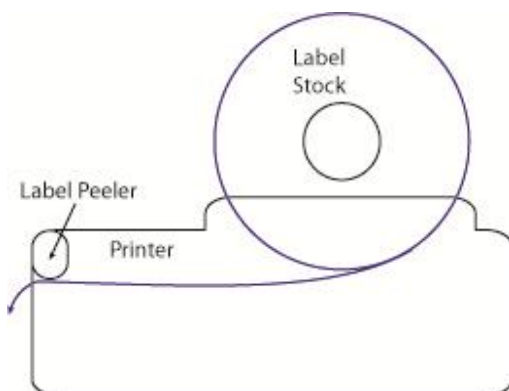
15. Push the printer back into the machine ensuring the drawer handle is flat against the drawer.



16. Close the access door and press the Run button on the GUI to continue filling prescriptions.

Labels - External

1. Load the label stock onto the printer as shown in the diagram.
2. Feed the Label stock through the printer's peeler.



After stocking and replenishing DOSIS, press the run button on the status tab to initialize DOSIS. If DOSIS has any other issue that you need to address, this tab is where that information is displayed.

DOSIS is now ready to run for the current shift.

Monitoring Drug Levels

DOSIS' integrated reporting system gives you the ability view which canisters need replenishing. A DOSIS system can have more the 60 active canister in use, in this case DOSIS Web Access report those canister as being on the 'Shelf'.

To know what drugs need replenishing, run the Replenishment Report from the Web Access.

1. Open the DOSIS Web Access; point to Reports and click Canisters Needing Replenishment. This will open a report showing you which canisters are low on inventory or are empty needing more pills. The "low level" is defaulted initially to 60 pills but can be modified based on your preference.

CANISTER	DRUG NUMBER	DRUG NAME	LOCATION	QTY.	PEND.	STATUS
0010005184	00591-0780-XX	SUCRALFATE 1 GM	Shelf	0		Low Qty
0010004407	00603-4110-XX	ISOSORBIDE MONONITRATE 30 MG	Shelf	0		Low Qty
0010004403	00603-3882-XX	HYDROCODONE-ACETAMINOPHEN 7.5/500 MG	Shelf	0		Low Qty
0010004401	00591-0349-XX	HYDROCODONE-ACETAMINOPHEN 5/500 MG	Shelf	0		Low Qty
0010003373	31722-0239-XX	AMLODIPINE BESYLATE 10 MG	Shelf	0		Low Qty
0010003369	00603-3888-XX	HYDROCODONE-ACETAMINOPHEN 10/500 MG	Shelf	0		Low Qty
0010003096	00456-3210-XX	NAMENDA 10 MG	Shelf	485		Ran Empty

2. Once you have determined which canisters need replenishment, use the list to pull the drugs and take them to the replenishment workstation that is running the DOSIS Web Access. This workstation must have a bar code scanner and typically has the DOSIS external label printer nearby.
3. As room allows, retrieve the canisters that need replenishing from DOSIS or from their shelf location.

4. Open the DOSIS Web Access. On the menu bar, point to Canister menu and click on Replenishment. The Replenishment screen appears. Or utilize the short cut icon on the DOSIS Web Access dashboard .
5. In the Canister Information text box, enter the canister serial number by scanning it or manually typing it in.
6. The drugs associated to that canister will display in the Drug Information text box.
7. If the canister is completely empty, select the check box in the Canister Information panel box. This will clear all current lots stored for that canister.
8. Choose the instance of the drug with which you are replenishing, by selecting the radio button that corresponds with the drug.
9. Ensure the focus is in the Stock Bottle Bar Code text box and scan or manually enter the stock bottle bar code. If the stock bottle bar code and the drug instance selected match, you can continue by entering the quantity you are adding to the canister. If the stock bottle bar code and the drug instance do not match, DOSIS will prompt you to correct any issues and continue.
10. Once you have a stock bottle bar code and a drug instance that match, you can enter the quantity you are adding to the system and the lot number and expiration date for that stock bottle.
11. If you want a label to put on the canister showing the current drug information in that canister, select the check box next to Print Replenishment Label and select Apply.
12. The Web Access changes to a confirmation report showing the canister's replenishment history.
13. Pour the pills into the canister through the access lid.
14. Place the canister label on the back of the canister by aligning the marks on the center of the label with the marks on the canister.
15. The canister can be returned to DOSIS. It doesn't matter in which location you put the canister as DOSIS scans each row as it is relocked to verify which drug has been returned to the machine.

Replenishment

Canister Information

Serial Number: ☐ Reset "Ran Empty"

Low Level: 0 Quantity/Pending: 0 / 0 ☒ Canister Is Completely Empty

Drug Information

Stock Bottle Bar Code:

Drug Number:

DRUG INSTANCE

MFG	COLOR	FORM	SHAPE	FRONT	BACK
No Current Map					

Stockbottle Quantity/Lot

Quantity: Lot: Expiration: 04/2011

☐ Print Replenishment Label

Filling Operations - Chapter 3

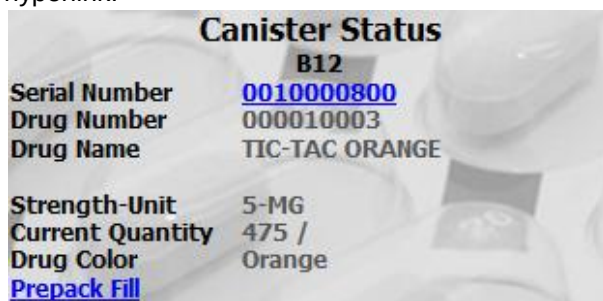
Prepack

Prepack allows you to select any quantity across the canisters you have in your system. This is done by selecting a specific drug in the system and choosing the number of blister cards you are wanting to prepack.

with the set amount of drugs you specify from the Prepack drop down menu, or from the Dashboard's Canister Status in the Web Access Software.

Prepack Using the Status Dashboard

1. Open DOSIS Web Access.
2. From the Cabinet View screen, select the canister you wish to Prepack from by hovering over it with the mouse and clicking it. In the Dashboard under Canister Status, click the [Prepack](#) hyperlink.



3. A canister history report will display with Prepack request information at the bottom of the window.

Canister Information					
Serial	Quantity	Pending Work	Low Level	Total Inv. Cost	Active
0010000340	504	14	60	0.00	True

Drug Information		
Drug Name	Strength	Unit
METOCLOPRAMIDE	10	MG

Replenishment History					
Date/Time	Drug Number	User	Quantity	Lot Number	Lot Expiration
07 Mar 2011 / 03:27:54 PM	00603-4615-	manhac	1000	T081D10D	04/12
21 Mar 2011 / 01:26:32 PM	00603-4615-28	manhac	500	T197L09A	04/12

Card Data

Number of Cards:
 Days Supply (Number of Doses):
 Pills Per Dose:

Start Day:
 Last Day of Month:
 Requesting User:

☐ **Dispense Now**

4. In the Card Data text box, enter the number of cards you want to fill and the number of pills per card. If you have selected user identification be used in the preferences, enter your user id in the Requesting User text box.

5. Select the Batch Now check box to put this Prepack in the top of the filling queue. DOSIS will automatically pick up the Prepack request at the next available fill.
6. Press the APPLY button to Prepack the drug.

Prepack Using the Prepack Screen

1. Open DOSIS Web Access.
2. On the menu bar, point to DRUGS and click Prepack. The Prepack screen displays.

Prepack Fill

Drug To Fill

Drug Search:

DRUG SELECT

	DRUG NUMBER	DRUG NAME	CANISTER	QUANTITY	PEND. WORK	LOCATION
☒	00603-4615-XX	METOCLOPRAMIDE 10 MG	0010000340	504	14	D8
☐	00603-4614-XX	METOCLOPRAMIDE 5 MG	0010000481	488		D7

Card Data

Number of Cards: Days Supply (Number of Doses): Pills Per Dose:

Start Day: Last Day of Month: Requesting User:

☐ Dispense Now

3. In the Drug Search: text box, enter all or part of the drug name, NDC, or the stock bottle bar code of the drug you want to Prepack. The list of drugs that match that search will appear in the DRUG SELECT list.
4. Select the radio button next to the drug you want to fill.
5. In the Card Data text box, enter the number of cards you want to fill and the number of pills per card. If you have selected user identification be used in the preferences, enter your user id in the Requesting User text box.
6. Select the Prepack Now check box to put this Prepack in the top of the filling queue. DOSIS will automatically pick up the Prepack request at the next available fill.
7. Press the Apply button to Prepack the drug.

On Demand

In On Demand mode, DOSIS interacts with your pharmacy's Pharmacy Management Information System (PMIS) using our proprietary interface to accept prescriptions sent from the PMIS that can be automatically filled by DOSIS. These automatically filled cards will have a patient specific label already applied to the dispensed cards.

For patient specific prescriptions the electronic PMIS interface is the main point of entry for receiving prescription information for the fulfillment process within DOSIS. DOSIS physically utilizes an Ethernet connection and communicates via TCP/IP (or a file based arrangement) to the pharmacy's PMIS. The DOSIS interface software supports many different protocols due to the disparity amongst PMIS protocols.

DOSIS also interfaces to other DOSIS systems via an Ethernet network on systems that are deployed with more than one DOSIS L60. This external PC serves the purpose of routing and load leveling prescriptions across the multiple machines. The communication between DOSIS systems is a proprietary protocol.

If you choose to use your PMIS to fill with DOSIS, our team works with your pharmacy team to help set up all the proper settings to ensure a smooth transition to filling on demand with DOSIS. This also includes customizing DOSIS' prescription labels to match your existing label formatting.

Except for daily maintenance and monitoring of supplies, DOSIS communicates directly with your PMIS and fills the prescriptions sent to it. 3

CAUTION: If the DOSIS software is down or DOSIS is powered off, DOSIS will not receive prescriptions over the interface to process.

Orders Processing

All prescriptions and prepacks orders once entered into DOSIS are managed by the Orders Queued Report from the DOSIS Web Access. This report is what the pharmacy staff will watch to determine what is in queue that can and cannot be dispensed. Orders Queued report can be found beneath the Report drop-down menu or from the short-cut bar.

ORDERS QUEUED										
☐	RX NUM. ▲ ▼	CANISTER ▲ ▼	LOC. ▲ ▼	DRUG NUMBER ▲ ▼	DRUG NAME ▲ ▼	QTY ▲ ▼	COMPLETE ▲ ▼	STATUS ▲ ▼	PRIORITY ▲ ▼	Cancel Sel. Prioritize Sel. Print-Cancel Sel.
☐	7345413			55111-0158-10	OMEPRAZOLE DR 20 MG CAPSULE CAP	30	0 of 1	Queued	Normal	• Cancel • Priority • Print-Cancel
☐	7337959			00527-1345-10	LEVOTHYROXINE 100 MCG TABLE TAB	30	0 of 1	Queued	Normal	• Cancel • Priority • Print-Cancel
☐	7371394			31722-0239-10	AMLODIPINE BESYLATE 10 MG T TAB	30	0 of 1	Queued	Normal	• Cancel • Priority • Print-Cancel
☐		0010000458		00456-2010-XX	LEXAPRO 10 MG	540	13 of 18	Shelf	Best Effort	• Cancel • Priority
☐	7370116			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel
☐	7371164			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel
☐		0010000593		55111-0532-XX	DIVALPROEX SODIUM 125 MG	540	15 of 18	Shelf	Best Effort	• Cancel • Priority
☐	7380016			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel

Prescription orders will have a prescription in the RxNum column where as prepack in queue are blank in the RxNum but have a Canister column filled in and if it is currently on of the current 60 canisters the location column (LOC.) will be populated as well.

Filtering options for the Orders Queued:

Prescription
 Number:

Canister
 Number:

Drug
 Number: Name:

Order Types
 Order Type: Quantity Type:
 Queue Status:

Custom Filters

Orders Queued FAQ (Frequently Asked Questions)

How to find a prescription that has been sent to DOSIS but not completed by DOSIS?

The user would run the orders queue report, select the filter icon, and then enter the prescription number that is being sought.

How to only view the prescription orders that are in the queue for DOSIS?

The user would go to the filters of the Orders Queued. In the Order Types section of the filter page, select 'Prescription Orders Only' from the Order Type Drop-down list, and then select Apply. Similarly if you wanted to only see 'Prepack Orders Only'.

How to cancel a prescription in queue and have a prescription label(s) print to the DOSIS external by-pass printer?

Find the prescription by paging or adding a filter to narrow down your search. Once located the user has the ability to 'Cancel', 'Priority', or 'Print-Cancel'. In this scenario the user needs to select 'Print-Cancel'. Once 'Print-Cancel' is selected a label or multiple labels will automatically print such that a user can now fulfill the printed prescription based on the label(s).

How to view the prescription for canister that are not currently in DOSIS (shelf status)?

The user would go to the filters of the Orders Queued. In the Order Types section of the filter page, select 'Shelf' from the Order Status Drop-down list, and then select Apply. Other available status to sort by are, Queued, Attention, Empty, Broken, or Drug Not Trained

How to do you select an action for a group of prescriptions that are queued in DOSIS?

The user would select all the prescriptions by putting a check in the check-box at the beginning of each row. If a filter was utilized and all the items are wanting to be selected, utilize the select all, the check-box on the header row. Once items are selected, utilize the options either "Cancel Sel", 'Prioritize Sel.' or 'Print-Cancel Sel' located in the header row (far right).

ORDERS QUEUED										
☐	RX NUM. ▲ ▼	CANISTER ▲ ▼	LOC. ▲ ▼	DRUG NUMBER ▲ ▼	DRUG NAME ▲ ▼	QTY ▲ ▼	COMPLETE ▲ ▼	STATUS ▲ ▼	PRIORITY ▲ ▼	Cancel Sel. Prioritize Sel. Print-Cancel Sel.
☐	7337959			00527-1345-10	LEVOTHYROXINE 100 MCG TABLE TAB	30	0 of 1	Queued	Normal	• Cancel • Priority • Print-Cancel
☐	7371394			31722-0239-10	AMLODIPINE BESYLATE 10 MG T TAB	30	0 of 1	Queued	Normal	• Cancel • Priority • Print-Cancel
☒	7370116			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel
☒	7371164			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel
☒	7380016			64679-0516-03	TAMSULOSIN HCL 0.4 MG CAPSU CAP	30	0 of 1	Shelf	Normal	• Cancel • Priority • Print-Cancel
☐		0010000458		00456-2010-XX	LEXAPRO 10 MG	540	13 of 18	Shelf	Best Effort	• Cancel • Priority
☐		0010000593		55111-0532-XX	DIVALPROEX SODIUM 125 MG	540	15 of 18	Shelf	Best Effort	• Cancel • Priority

How do I get a prescription or prepack to be filled NEXT!

Go to Order Queued, select the filter icon, enter or scan the prescription/RX number into the Prescription Number text box. Once the item is displayed, select the priority option for the displayed row. From the Priority Drop-down Box select 'Now'.

Customized Priorities in Order Processing

Usage of customized priorities in DOSIS are evaluated and utilized on scenarios that are unique to a given customers workflow needs. To set up custom priorities within DOSIS please contact the DOSIS Support staff. The features it enables fall into two different scenarios.

CAUTION: Custom Priorities can only be setup by contacting the DOSIS support team. It is also advised modifications should be presented to the support team prior to changes. Unauthorized changes could halt your system from receiving prescriptions from the PMIS.

Custom Prioritization

The user can now use other items to prioritize and filter their prescription queue. These can be label fields that are being utilized today for workflow purposes. For example, say a user wants to run cards sorted by patient. The user sends over orders for DOSIS and using the patient name, DOSIS will run the scripts in alphabetical order based on the patients last name and then first name.

Exclusive Queue Feature

By setting a priority as exclusive, this allows the customer to only run queued items that fall within a certain parameter. For example: A pharmacy wants to run homes A-F in blue cards and home G-Z in green cards. The DOSIS PMIS interface software will take care of marking the scripts as being a blue card or green card based on nursing home. The user will set the queue to only run blue cards while the blue cards are in DOSIS. This way, only scripts that are marked blue card will run while the prescriptions pending on the greens remain in queue.

To switch from one custom priority to the next the user will utilize the Orders Queued report. Located in the lower left corner the is the Custom Priority configuration icon,



Setting the values below will give priority to queued orders that have the values specified. If a custom priority value is set as exclusive, then only those items that have the specified value will be run.

Set Custom Queue Priority Values

Card Type: All

Apply

In this scenario the user can run different card types by selecting which card type on the Custom Priority screen. Choice options in this example are All, Blue Cards, Red Cards or Green Cards. 'All' in this case will allow DOSIS to fill any prescription regardless of the nursing home name to card color relationship that has been configured in the DOSIS software for custom priorities.

Example of the Queue Management screen beneath tools that allows the described scenario to occur.

CUSTOM QUEUE PRIORITIES				
Order	Description	Exclusive	Active	Values
1	Card Type	☒	☒	• Edit Values
2	Facility	☐	☐	• Edit Values

Apply Changes

Note the use can disable and enable by utilizing the 'Active' checkbox. The 'Exclusive' checkbox is really only useful if you want to serialize the card production. For example hold all the blue card request in queue until all of the green cards have been dispensed.

The below images is a result of clicking the 'Edit Values' of a customer priority. These are the values that are displayed in the Orders Queue's Custom Priorities screen for 'Card Type'. Here the user has the ability to activate and/or delete. Deletion should only be done in conjunction with Manchac Support team such that the PMIS interface rules are also adjusted.

Edit Value List

VALUE LIST

Order	Value	Active	Delete?
1	Blue Cards	☒	☐
2	Red Cards	☒	☐
3	Green Cards	☒	☐

Basic Operations - Chapter 4

Adding Drugs to the System

Before you can use a drug in DOSIS, you must add the drug to the DOSIS database, and associate it to a canister. The placement of the canister is dynamic; you can place a DOSIS canister in *any* position within a DOSIS cabinet. Having the correct drug information in detail is one of the most important steps in getting the correct drug into your dispensed blister cards. *Generally this operation is either done or supervised by your on-staff pharmacist.*

NOTE: DOSIS does make decisions on the information entered; not putting correct information can cause fulfillment discrepancies!

Add Site Drug

Drug Information			
NDC Number: *	(5-4-2, 4-4-2, 5-4-1, or 5-3-2)	Strength:	
Name:		Unit:	
Manufacturer Information			
Name:	3M HEALTH CARE LTD		
Shape:	Apple	Color:	Beige
		Form:	Caplets
Imprint Front:		Imprint Back:	
		Pill Cost:	
Stock Bottle Information			
Quantity		Bar Code	
		No Barcode	☐
		NDC-11 Match	☐
Apply			

Add the Drug to the Database.

1. On the menu bar, point to Drugs and click Add Site Drug.
2. The Add Site Drug screen displays.

Drug Information Text Box

1. Enter the NDC number of the drug, including 'dashes'
2. Select a drug name from the drug Name drop-down list
3. Select a drug strength from the drug Strength drop-down list
4. Select a drug unit from the drug Unit drop-down list

Manufacturer Information Dialog Box

1. Select the name of the drug manufacturer from the Name drop-down list.
2. Select the drug shape from the Shape drop-down list.
3. Select the drug color from the Color drop-down list.
4. Select the drug form from the Form drop-down list.
5. Enter the imprint from the front of the pill in the Imprint Front text box.
6. Enter the imprint from the back of the pill in the Imprint Back text box.
7. Enter the cost per pill in the Pill Cost text box (optional).

Stock Bottle Information Dialog Box

1. Enter the stock bottle quantity in the Quantity text box.
2. Scan or enter the stock bottle bar code in the Bar Code text box.
3. If there isn't a bar code available, click the No Barcode check-box
4. If you want the DOSIS to treat the NDC as a complete NDC-11, then select NDC-11 Match check-box.
5. Click the Submit button. A report page populated with the entered information appears.

To add another drug, point to Drugs then click Add Site Drug and repeat the process.

Associating/Disassociating a Drug to a Canister

Because DOSIS's canister design allows you the flexibility to put the same drug in it (despite manufacturing differences like color, size, and shape), you must first indicate which drug instances are allowed to be counted in the same canister. *What drugs you associate to a canister is what the system will allow users to replenish into a canister.*

1. On the menu bar, point to Drugs and click Drug Association.

Canister Serial Number

2. Enter or scan the canister serial number.

NOTE: Only drugs associated can be replenished in a specific canister.

CAUTION: DOSIS will allow users to switch NDCs' that are different pharmaceuticals in a canister. These operations should only be done by a pharmacist!

Drug to Add

3. Enter the drug name or NDC number in the Drug Search text box and click on the dialog box in a blank area. If there is a drug in the system that matches your search criteria, it will appear in the Drug to Add dialog box.
4. Select the radio button next to the drug you want to associate the canister to and click the Add Drug button.
5. If the drug selected does not match a currently associated drug you will not be able to associate it and an error message will pop up and display the text "Drug Not Equivalent".

Current Drug Associations

There are two functions you can perform from the Current Drug Associations.

6. If you want to disassociate a drug from the canister, select the radio button next to that drug in the Current Drug Mapping dialog box and click the Remove Drug button.
7. To print a canister label with the drug information on it, select the radio button for the associated drug and select the check box next to the Print Canister Label text.
8. Click the Apply button.
9. The printer prints the canister label. Affix the label to the canister using the alignment marks on label and canister.

Replenishment

Adding drugs to a canister is the same process whether the canister is brand new or has previously been filled with drugs



1. On the menu bar, points to Canister then click Replenishment or the shortcut.

2. Retrieve the canister from the DOSIS cabinet if necessary. (See HMI instructions).
3. Scan or enter the canister serial number.
 - a. Normally the drug's associated to the canister will display in the Drug Information.

(Above is only an example, of Aricept)

- b. If nothing appears, then the system does not have a current replenishment record associated to the given canister serial number, or there is no drug associated with the given canister serial number. The user needs to confirm the canister is empty, and select the Canister is Completely Empty check box.

NOTE: By selecting the check box next to Canister is Completely Empty the system will clear the current drug instance(s) associated with this canister as well as clear the lots. At this time, the software will display all the allowable instances to select from. This selection also clears the current drug lots. This allows your pharmacy to only have one lot at a time based on your pharmacy preferences (see also "System Preferences").

- c. If the system has reported ran empty erroneously for a canister and there is still sufficient pills in the bulk area of the canister and now the system is displaying the canister as RED. Then the user can just simply select the check box beside Reset "Ran Empty." This will restore the count and maintain the last replenishment record associated to the selected canister.

4. Next step, within the Stock Bottle Information, is to scan a stock bottle(s) bar code in the BARCODE input box.

Stock Bottle Information

BARCODE	QUANTITY	LOT	EXPIRATION	+
362856245302	30	ujkyl	09 ▼ 2014 ▼	+

- a. The quantity field is automatically populated with the quantity field that was entered during adding the given drug to the Site Drug List. Note, the user can optionally override this field by clearing the Quantity field and entering in a different number.
 - b. Lot information for the scanned stock bottle should be entered next.
 - c. Expiration date drop-down menus are provided for both the month and year.
5. If you are doing multiple stock-bottles into the same DOSIS canister, then you will need to click the plus (+) button. Once the plus button is clicked, a new row will appear below the first row.

Stock Bottle Information

BARCODE	QUANTITY	LOT	EXPIRATION	+
362856245302	30	AQUEP1	05 ▼ 2014 ▼	
			01 ▼ 2013 ▼	+

- a. Next scan the stock bottle barcode into the Barcode entry field, and the system will pre-populate the next field with Quantity, Lot, and Expiration Date, if the barcode is the same as the prior entry. If the stock bottle bar code is different, then the rows fields will be left blank.

BARCODE	QUANTITY	LOT	EXPIRATION	+
362856245302	30	AQUEP1	05 ▼ 2014 ▼	
362856245302	30	AQUEP1	05 ▼ 2014 ▼	
			01 ▼ 2013 ▼	+

- b. You can repeat this process for however many number of stock bottles you wish to replenish into the given DOSIS canister.

6. Pour the content of each stock bottle that was scanned into the DOSIS canister
NOTE: Please do not pour desiccants into the canister during Replenishment. This leads to counting DISCREPENCIES as well as canister going to attention state unnecessarily.
7. Normal operation is click the, Print Replenishment Label, such that a Replenishment label is printed and then applied to the front of the canister. The label is printed upon clicking the Apply button.

☒ **Print Replenishment Label**

Example of a Canister Label



8. Last software operation is to validate the number of stock bottles scanned and the total quantity that has been processed, and click the Apply button

Bottles: 2 Total Qty: 60 **Apply**

9. Upon a successful submission you will be presented with an information report as follows:

Canister Information

Serial	Quantity	Pending Work	Low Level	Total Inv. Cost	Active
0010000507	1827		60	0.00	True

Status

Canister Status	Fill ID	Timestamp	Fill Status
OK	78195	2012-01-16 12:55:37.325551	RanEmpty
	78179	2012-01-16 12:29:34.993288	RanEmpty
	78150	2012-01-16 11:45:45.780702	RanEmpty

Drug Information

Drug Name	Strength	Unit
SIMVASTATIN	20	MG

Replenishment History

Date/Time	Drug Number	Tech	Rph	Quantity	Lot Number	Lot Expiration
31 Oct 2011 / 10:26:29 AM	68180-0479-03	SYS	UNK	1970	3114500	08/14
28 Dec 2011 / 09:27:37 AM	68180-0479-03	UNK	UNK	2000	3115391	09/14
22 Nov 2011 / 11:16:33 PM	68180-0479-03	SYS	UNK	2000	3114502	08/14

10. Final step is to return the canister to DOSIS.
NOTE: The canisters do not have to be returned to the same locations. DOSIS rescans the row after it has been locked to verify what canister(s) have been placed in a given row.

System Operation Preferences

DOSIS has several options available to best match how you want DOSIS to behave in your workflow. Below is the Preference screen which can be found beneath Tools on the Web Access's main menu bar.

Preferences

System Options

- ☐ Default status of "Canister Is Completely Empty" option for replenishment
- ☒ Track Lot information for replenishment
- ☐ Warn User if Replen Exp Date Less Than 6 Months
- ☐ Dispense drug if canister quantity below requested quantity
- ☒ Allow Calendar Filling for Prepack Cards
- ☐ Force Confirm of Cancel from Order Queue
- ☐ Reprint Orders on Bypass Printer
- ☒ Replenishment Exp Date Default is Blank
- ☒ Use Most Recent Lot on Labels
- ☐ Use Most Recent Drug Expire Date on Labels

Blister Max Count and Direction: 31 Pouches Counting Up

Multi-card Split Quantity: 31 Default Prepack Days: 30

Last day of month for cycle count cards: EOM Default Canister Low Level: 60

Canister Label Type: Replenishment Labels

Default Months From Today For Prepack Expire Date: 12

Prepack User Requirement: No User Entry Required

Replenishment User Requirement: No User Entry Required

Apply

A check mark next to the feature description means that this feature is activated. A detail description can be found below:

Default status of "Canister Is Completely Empty" option for Replenishment – By activating this feature, it will default the ☐ **Canister Is Completely Empty** on the replenishment. The effect of this selection is the replenishment now will clear the all drug lots and the quantity for the canister that is being replenished.

Track Lot information for replenishment – If you do not want to track drug lots for medications dispensed from DOSIS. This also means that DOSIS cannot print any lot information on any labels!

Warn User If Replen Exp Date Less Than 6 Months – This option will force the DOSIS software to prompt the user during canister drug replenishment process to WARN the user if the expiration date being entered is less than six months from the day the replenishment is occurring.

Dispense drug if canister quantity below requested quantity – This will force the DOSIS software to ignore the current quantity it has in its internal database and attempt to fill the quantity that was either requested for a prescription or prepack request.

Allow Calendar Filling for Prepack Cards – This puts the fields on the prepack screen such that you can select where in the card DOSIS will start filling at.

Force Confirm of Cancel from Orders Queue – If you want the DOSIS software to prompt for confirmation when a user cancel a prescription request from the Orders Queued screen.

Reprint Orders on Bypass Printer – For prescriptions that DOSIS cannot fulfill that come across from your PMIS to DOSIS will be sent to the bypass printer, the same printer that is utilized for canister replenishment labels. NOTE: This is generally toggled for sites that have a separate printer dedicated for prescription labels.

Use Most Recent Lot on Labels – This setting will force DOSIS to print the most recent drug lots for drugs contained within DOSIS canisters.

Use Most Recent Drug Expire Date on Labels – A

Blister Max Count and Direction – A

Multicard Split Quantity – A

Default Prepack Days – a

Last day of month for cycle count cards – a

Default Canister Low Level – a

Canister Label Type – a

Default Months From Today For Prepack Expire Date – a

Prepack User Requirements – a

Replenishment User Requirements – a

DOSIS® Web Access - Chapter 5

DOSIS uses two different software entry points for you to interact with the system. Each has its own unique features that can only be performed in that piece of software, but each interacts with each other to show you similar information from both your workstation through the Web Access, and the Human to Machine Interface (HMI).

Web Access Usage

The web access is for remote functions by the pharmacy users, administrators, and installation/repair technicians. Some functionality is duplicated with the HMI for convenience, but each user interface has some individual functionality.

Pharmacy Users:

- Monitor DOSIS for state changes
- Add/replenish drugs to the system
- Activate / Deactivate canisters
- Issue Pre-Pack/Prepack request
- Reports

Administration:

- Add drugs into DOSIS
- Associate drugs to canisters
- Reports
- Monitor and perform data backups
- Set up external label printers

Technician Function:

- Diagnosis malfunction behavior
- Analyze logs to verify operation of DOSIS

Web Access Cabinet View Screen Layout

The screenshot displays the DOSIS Web Access interface. At the top left is the DOSIS logo with the tagline "THE POWER OF AUTOMATION. MADE SIMPLE." Below the logo are four navigation icons: a grid for "CABINET VIEW", a box with pills for "REPLENISHMENT", a prescription symbol for "LABEL CHECK", and a lock for "LOG OUT".

On the right side, there are three status sections:

- Canister Status:** Shows details for canister A7, including Serial Number 0010005178, Drug Number 516724005, Drug Name CARBAMAZEPINE, Strength-Unit 200-MG, Current Quantity 29, and Drug Color White. A "Prepack Fill" link is also present.
- Material Status:** Includes buttons for "BLISTER LID", "BLISTER CARDS", "OUTPUT BIN", and "LABEL STOCK".
- System Health:** Features a circular gauge icon.

Below these sections is a horizontal menu with tabs: "CANISTER", "DRUGS", "REPORTS", "TOOLS", and "HELP".

The main area shows a 5x12 grid of canister status icons, labeled A1 through E12. Each icon is a blue pill with an "Rx" symbol. The status of each canister is indicated by its color and any additional icons:

- Row A:** A1-A6 are blue. A7 is red. A8-A12 are blue.
- Row B:** B1-B11 are blue. B12 is grey with a white exclamation mark.
- Row C:** C1-C5 are blue. C6-C12 are blue.
- Row D:** D1-D7 are blue. D8 and D9 are yellow. D10 is blue. D11 is red. D12 is blue.
- Row E:** E1-E2 are blue. E3 and E5 are red. E4, E6-E12 are blue.

 Yellow padlock icons are positioned to the left of each row and to the right of each column, indicating locked access.

At the bottom of the grid is a legend:

- OK (blue pill)
- Low Quantity (yellow pill)
- Replenish (red pill)
- Vacant (grey pill)
- No Drug Associated (white pill)
- Needs Attention (blue pill with exclamation mark)
- Canister Broken (orange pill with exclamation mark)
- H Deactivated (blue pill with 'H')
- T Needs Training (blue pill with 'T')

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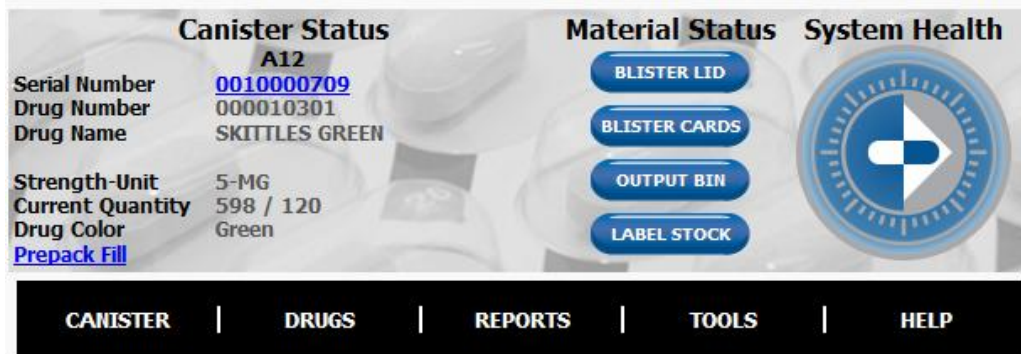
Shortcut Icons

Use these icons to quickly navigate to the main Cabinet View page, the Replenishment page, the Prescription Label Check screen, and the Orders Queued report.



Status Dashboard

This area of the Web Access gives you glance value information on the system's different statuses.



Canister Status

The Canister Status is only displayed when the Web Access is at the Cabinet View window. To populate the status, you must click on a canister in the canister row area. The information displayed gives you the following:

- Serial Number: This is the canister's serial number
- Drug Number: This is the NDC number.
- Drug Name: This is the name of the drug.
- Strength-Unit: This is the drug strength and unit of strength.
- Current Quantity: This is the current quantity in the canister and after the forward slash '/' shows the current quantity being requested (a.k.a. Demand).
- Drug Color: This is the color of the current drug instance.
- Prepack: This hyperlink takes you to the Prepack screen to Prepack cards for this particular drug.

Material Status

The Material Status column quickly allows you to know when stock material is low and needs to be restocked. This status is always visible no matter which screen is being displayed on the Web Access.

- BLUE is good.
- YELLOW is low quantity.
- RED is needs immediate attention.
- GRAY means the system is determining the status.

System Health Icons

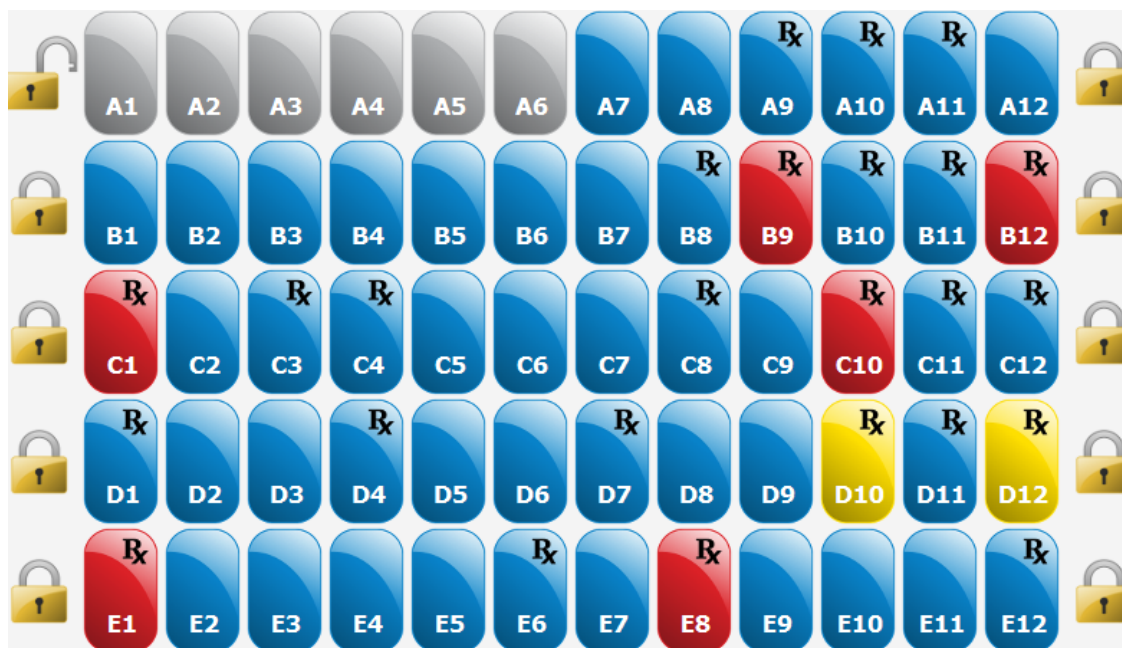


The System Health icon is an indicator of the robot's state.

- BLUE is good; all system are operational
- YELLOW indicates that system needs attention, although not immediately
- RED means the system has an issue that must be resolved by the user in order to proceed. An event has occurred and the system is going to eventually going to come to a stop.
- GRAY means the system is determining the status (a transition is occurring)

Canister Locations

In the Cabinet View screen, the system displays numbered locations to indicate the canister locations stored in DOSIS. The locations are color coded based on their current status.



Navigation Menu

The navigation menu is designed to take you to the appropriate location in the DOSIS software to perform needed tasks.

Canister Menu

Replenishment - To add drugs to a canister that has a drug associated to it.

Inventory Adjustment - Allows the user to adjust the inventory in the system. For instance if a user has a recall or filling directly from a canister outside of the DOSIS.

Canister Overview - This opens a report window that shows you the status of the canisters in the system. You can activate or deactivate the drug in the canister, print a replenishment label or a canister label from this screen.

Drugs Menu

Add Site Drug - Entering a drug's information into the DOSIS system. You must first do this in order to perform Drug Association.

Drug Association - Initiating and managing the associated drugs to a specific canister

Prepack Fill - Pre-packing cards is done by DOSIS filling multiple blister cards with the same drug and printing a stock drug label on each card.

Data Management - Under the Data Management menu selection are five different areas of drug data that you can modify. These data elements are selectable items in the Add Site Drug list.

Drug Names - Edit or add a drug name.

Drug Strengths - Edit or add drug strengths.

Drug Units - Edit or add drug units.

Drug Manufacturers - Edit or add drug manufacturers.

Drug Colors - Edit or add drug colors.

Reports Menu

Orders Queued -- This is the queue for prescriptions that have been sent to DOSIS from your PMIS or Prepack you have entered via the DOSIS Web Access.

Canisters Needing Replenishment— The report which tells you what canisters need to be replenished and their specific location in or out of DOSIS.

Canisters On Shelf with Work Pending - This is the list of canister that has prescriptions pending on them outside of the current 60 canisters that are within DOSIS

Orders Dispensed -- This is the list of processed orders for both prescriptions and prepacks dispensed cards.

Fill Discrepancy – This report shows you what dispensed cards where in error and the reported error for each dispensed card.

Prepack Log – Allows you to see what pre-packs have been run in DOSIS. If you are using user tracking, then this sheet can be utilized as a log of who dispensed which pre-packs.

Canisters

Canister Overview - This opens a report window that shows you the status of the canisters in the system. You can activate or deactivate the drug in the canister from this screen as well as re-print canister labels for a specific canister.

Canister Discrepancies – Displays the current status of all canisters associated to the DOSIS system.

Current Lots in Canister – Displays the current drug and lot information for all canisters associated to the system.

Canister Fill Statistics - Displays when a canister was commissioned or decommissioned, the total fills by the canister and the total number of pills dispensed by the canister.

Drug Quantities Dispensed By Canister – Displays the total number of pills dispensed for all canisters associated to the system.

Orders Queued
Canisters Needing Replenishment
Canisters On Shelf With Work Pending
Orders Dispensed
Fill Discrepancy
Prepack Log
Canisters
Replenishment History
Statistics
Site Drug List
Blisters In Progress
System Health
PMIS Requests

Replenishment History - This is a searchable report that gives you the replenishment history of each canister. If you are using user tracking, then this report can be utilized as a log of who replenished for a given time period.

Statistics

Performance Summary - This is the overall blister card performance based on the number of PMIS transaction, number of cards, and error rate

PMIS Request Summary - This provides you the data to see how well DOSIS is doing on demand prescriptions from your PMIS.

Drug Throughput Performance Summary - This report gives a view of what drugs are being utilized the most in the DOSIS system.

Card Quantity Statistics - This gives a break out on what types of prescriptions are handled by DOSIS.

Card Discrepancy Summary - This report is a detailed report breaking down the types of filling errors on a daily basis.

Site Drug List – Reports all of the drugs that have been added to the system. Users can also update/modify drug data as well as adding or removing different stock bottle sizes and drug instances.

Blisters In Progress - Shows you which drug/prescription is in the filling process and packaging process.

System Health – Reports the status of all the variants of the system; what alerts are current, and the operational status. You can also access by clicking on the System Health icon on the dashboard.

PMIS Requests – Allows you to look up all PMIS request that have been submitted to DOSIS and allows you to re-print the prescription label on the external DOSIS printer.

Tools Menu

Prescription Label Check - This opens a window to allow you to scan prescription bar codes to verify if the prescription is queued to DOSIS for filling.

External Printer Manager -- This selection allows you to manage your external bar code printers in the DOSIS system.

PMIS Interface -- Options that allow you to determine the status of the PMIS to DOSIS. Also allows you to cancel the entire content of the PMIS queue and/or cancel and print all.

Queue Management -- This is where the user can determine what priorities have been set for DOSIS' interface to your PMIS.

System Preferences - Allows the user to determine some optional behavior in the system and on the Web Access features.

Pharmacy Information -- This is where the user can setup the pharmacy name, address, phone number, DEA number that is utilized for prepack cards. Also on this form you can setup how DOSIS interrupts your PMIS bar codes on your existing prescription labels.

Return to Shelf Label -- This allows the user to take the Fill Id of any prescription label and print a prepack label for that given prescription.

Logs -- The logs are used by customer support to help you troubleshoot the system if needed.

Help Menu

Contact Us – Displays the phone numbers and contact emails for obtaining help from Manchac Technologies, LLC.

User Guide-- The option opens the user guide, quick references, and printer threading guide as a PDF files in another tab.

Operating DOSIS Reports

DOSIS reports allow DOSIS to provide feedback about the current status to the historical data about what occurred. All reports are ran from the DOSIS Web Access so that user can access the reports from any PC on the same network as DOSIS.

Navigation of the reports are done by simply clicking on the reports name beneath the report menu on the Web Access. Below are the basic mechanisms to allow you to best utilize the data being displayed.

Paging

Since the reports are web based the reports are only bring the data set that fits on a given page size. At the bottom of each report is the paging icons that allow you to move to the next page of data.



Filtering

At the bottom left corner of each report is a filter icon. 

Each report filter may different. However, if the data you are viewing is based on time, then the filter will give you the ability to select a date range, as show below:

A date filter interface with the title 'Date'. It contains two radio buttons. The first is selected and is followed by a dropdown menu showing 'Today'. The second is unselected and is followed by a date range: a dropdown for 'March', a dropdown for '24', a dropdown for '2011', followed by the word 'to', another dropdown for 'March', a dropdown for '24', and a dropdown for '2011'.

Other possible filters include canister serial number, drug number, drug name, prescription number, timeframe grouping, orders type.

Exporting

In the bottom right corner of exportable reports you can find two icons that allow you to either export to Portable Document Format (PDF) or comma delimited data text file (CSV)



By selecting either report format will cause your browser to open a 'save dialog box' such that you can save the exported file off to a storage location of your choice.

Human to Machine Interface (HMI) - Chapter 6

HMI Usage

The HMI is the touch screen located on the front of each DOSIS L60. The HMI controls the functions that are executed at the cabinet by the pharmacy users, Administrators, and installation/repair technicians.

Pharmacy Users:

- Lock and unlock pill canisters for removal and return
- Pill canister removal and return
- Removal and restocking of consumable supplies (blisters, lids, & prescription labels)
- Retrieve completed cards
- Basic troubleshooting

Administration:

- Run diagnostics for support assistance
- Change-out field replaceable parts intended for change-out by a pharmacy worker
- Advanced trouble shooting
- Configure the network connection
- Manage backups of DOSIS
- Take the system down or reboot

Technician Functionality:

- Verify system functionality
- Change-out field replaceable parts intended for change-out by a technician

Consistent throughout the HMI, as in the Web Access, is the Material Status and System Health notifications, as well as the cabinet status at the bottom of the screen.

Material Status

The Material Status is indicated with a shaded box around the word indicating what area is covered.

The colors to indicate the status are:

- **Blue** == OK
- **Yellow** == Needs Attention Soon
- **Red** == Immediate Attention Required



System Health

The System Health is indicated with three different icons.

- **Blue:** Symbolizes all things are operational and in good status.
- **Yellow:** Symbolizes that an event has occurred which potentially could soon cause a failure; but the system is still operational.
- **Red:** Symbolizes that the system has detected an error and has halted all operations until the error is corrected by the user.



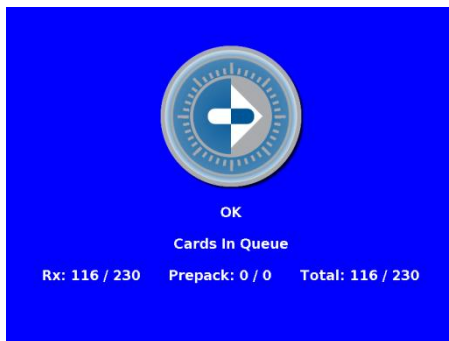
Cabinet Status

The cabinet status is indicated at the bottom of this screen. It shows the number of prescriptions in the queue and the operational status of DOSIS.

Cards In Queue: RX: 0 / 0 PP: 0 / 0 ALL: 0 / 0 Operational Status: Running

Idle Screens

When the HMI's touch screen has not been touched for one minute, it displays one of the following idle screens.



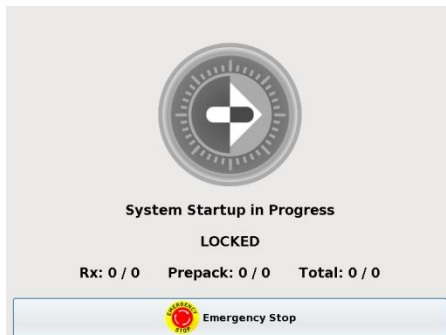
If the system is operating correctly, it displays the blue OK screen.



If the system has an issue that does not halt the system, it displays the Needs Attention screen.



If the system has an issue that halts the system and needs your immediate attention, it displays the Error! System Down! screen.

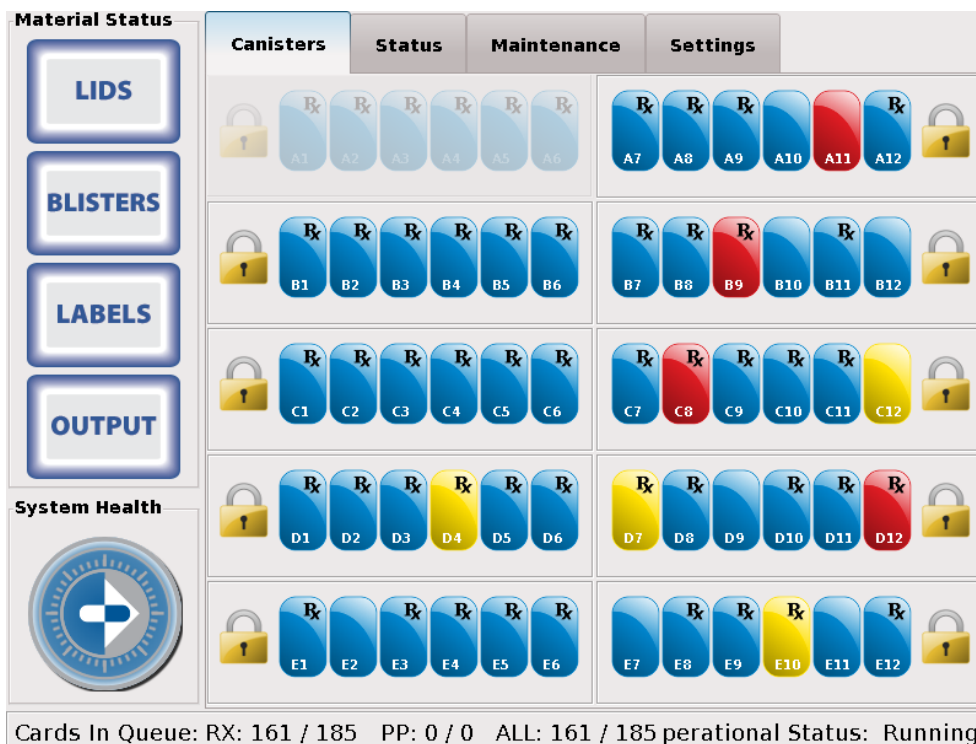


When the system is initializing and starting up, it will display a gray Status screen.

HMI Tabs

Canister Tab

The Canister Tab is the HMI's default screen. This screen gives you at-a-glance status of the system. The canisters are represented in rows that correlate with the DOSIS.



Canister Access

Access to the canisters is also managed from this screen with representational locks at the edge of both doors on their respected rows.



To access a canister row, touch the “locked” icon.

DOSIS will release the locking solenoid on the cabinet allowing you time to open the latch.

While the above pop up is displayed, grasp the row handle and pull down.

If you wish to cancel your request, just re-touch the “lock” icon.

By default, if you do not get the latch open in time, the solenoid will re-lock. When a row is unlocked it is

represented by the “unlocked” icon. Closing the physical latch on the cabinet door will reset the icon to “locked.”

An LED light will also indicate which row you have unlocked, helping guide you to quickly access the handle.



To remove a canister from the unlocked row, grasp the canister handle and pull straight out from the machine. To return the canister, reverse the process.



Canister Status

Canister status is represented as follows:



- **Blue** indicates the canister is working fine and pills are above the low indicator.
- **Yellow** indicates the quantity in the canister is low. Below 60 pills in a canister.
- **Orange** indicates the inventory in the canister doesn't meet the demand/prescription request
- **Red** indicates the canister needs immediate attention and the quantity is below 30 pills.
- **Gray** indicates a vacant location, or the row is unlocked.
- **Black** indicates a location that does not have a drug associated to the canister.
- The **orange circle** with an exclamation mark overlaying a canister means the canister is broken and must be replaced.
- The **blue circle** with an exclamation mark overlaying a canister means the location needs attention.
- The **Rx** overlaying a canister means there are prescriptions pending for that canister.
- **HOLD** over a canister indicates it is deactivated.
- A **T** overlaying a canister means this is a new drug in the system and must be validated before the system can accept PMIS request for the drugs in that canister. Call technical support when this occurs.

Status Tab

When DOSIS encounters an issue, it displays the information on the problem and how to fix it in this text area.

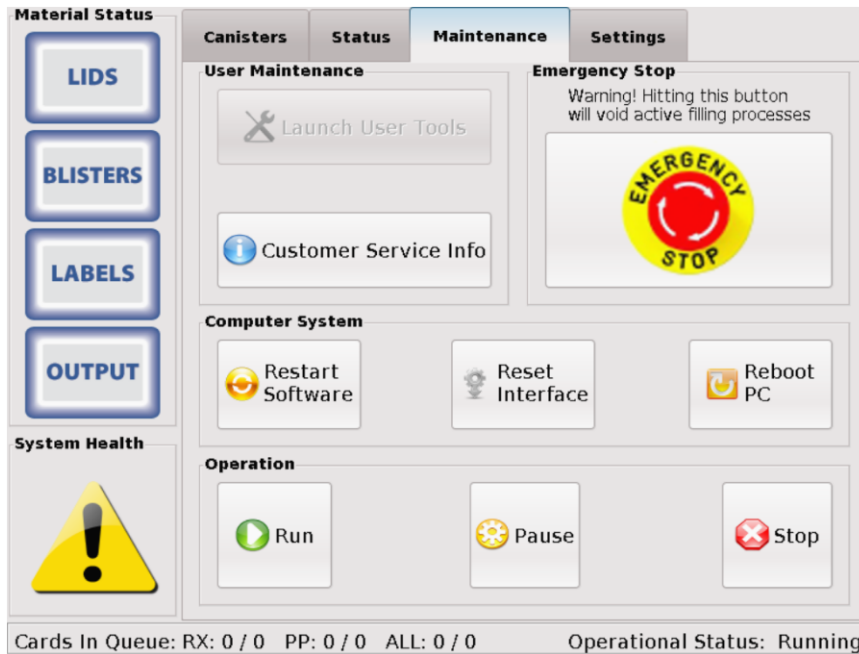
Code	Instructions
80005	Replenish the indicated red canister and return it to the system.

You will notice on this page that you have access to both the Packaging Unit and Blister Cards doors.

On the bottom right is the RUN button. After you perform the task as requested in the Current Issues text box, press the Run button. DOSIS will go through a series of checks and balances, clear the codes and start running prescriptions in the queue.

See the trouble shooting chapter for common issues with which you will need to become familiar.

Maintenance Tab



Operation Group:

Run Button

Press this button to initialize the system after a stop or a pause operation.

Stop Button

Pressing this button tells the machine to finish the movement being performed and stop. DOSIS will not finish a prescription if it is in the process of filling it.

Pause Button

Pressing this button tells the machine to finish the prescription it is currently working on and then stop.

Computer System Group:

Restart Software Button

This button restarts the DOSIS software processes. DOSIS retains the queued prescriptions and will continue filling upon restart.

Reset Interface Button

This button restarts the DOSIS interface that communicates with your PMIS.

CAUTION: During this brief time DOSIS will not be able to receive prescription request for on-demand filling.

Reboot PC Button

This button shuts down the PC and leaves the PC in a powered *OFF* state.

CAUTION: DOSIS will not retain prescription request in on-demand filling.

Emergency Stop Group:

Emergency Stop Button

Pressing the Emergency Stop will *immediately stop all working processes* in the DOSIS. In order to recover from an Emergency Stop, you will have to depress the Run button to restart the system.

NOTE: An Emergency Stop should only be used in extreme emergency.

CAUTION: Emergency Stop voids the active filling processes and shuts down 48 volt power to the

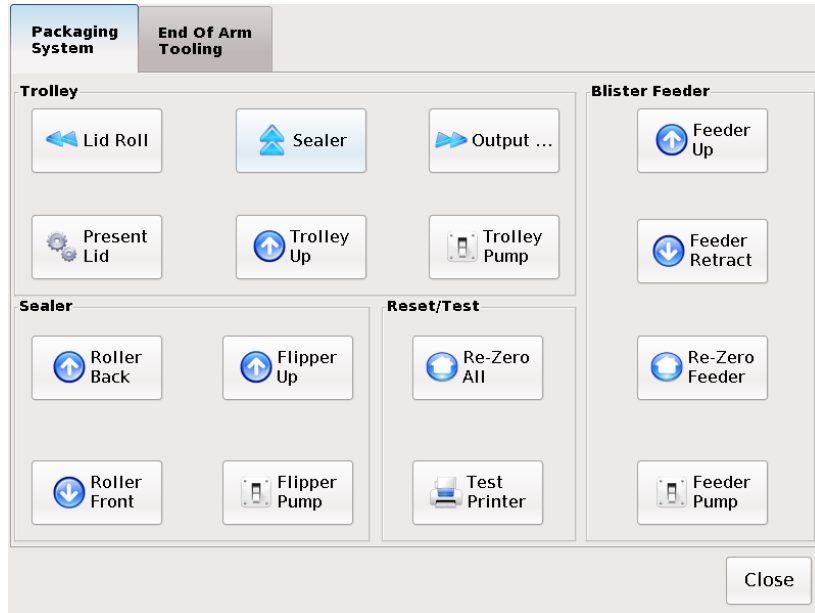
User Maintenance Group

Launch User Tools

This button will launch another dialog box that will allow the user to manipulate the DOSIS system. This group of functionality is provided to allow the general user to move and test different parts of the DOSIS system.

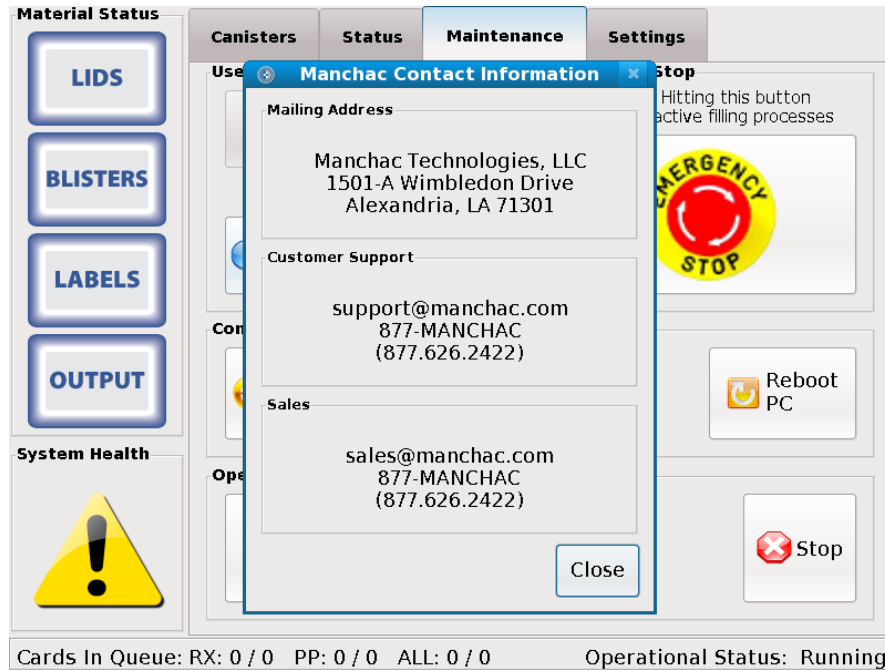
NOTE: Generally a Manchac Technology support person will be instructing you on the best method to utilize these two screens.

Functionality is split between the two basic systems: Packaging and End of Arm Tooling



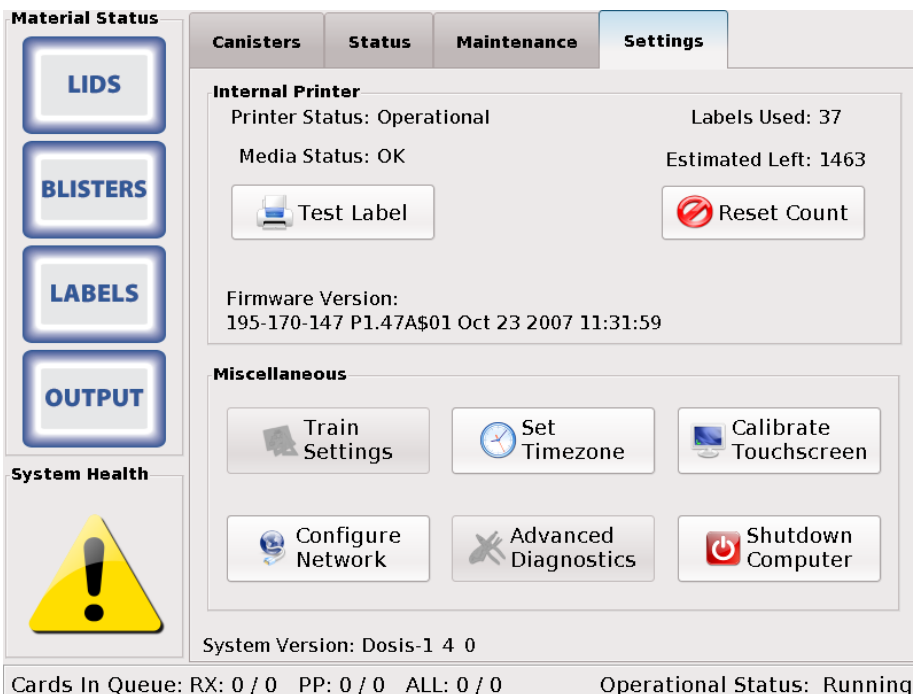
Customer Service Button

This button will launch a dialog box with the Manchac Support information as shown below:



Settings Tab

The Settings tab allows the user to view details about the configuration of the DOSIS unit. These include detail statuses of the Internal Printer, Networking settings, Time-zone. The Calibrate Touchscreen is generally a utility for the Manchac manufacturing team and for touch screen replacement. The Training dialog box has a Launch button which opens screens intended for DOSIS technicians. Changing settings in this area can create extreme operational problems for DOSIS. The screens will not be explained in this document. The current System Version is also listed on this screen.



Internal Printer Group:*Printer Status*

Displays the current operational status; operational or disconnected

Media Status

Displays the current media status; OK or out of materials
a new roll of labels. This resets the internal counter to zero.

Test Label Button

This will print a generic prescription label to the internal printer.

CAUTION: Once the label the printer the label must be removed by the user before continuing. Not removing label will result in an ERROR in the system.

Firmware Information

Displays detailed information on the Part Number, Revision, Time, and Date.

Label Used and Estimated Left

If you want to track of the number of labels used from a roll, you must select the Reset button when installing a new role of labels inside the cabinet.

Reset Count Button

This resets the manual counter if you want the system to track the number of labels printed against a roll of label stock.

Miscellaneous Group:

The Network Configuration dialog box launches the Network configuration screen. This screen determines how DOSIS' behaves on your premise's IP network. DOSIS has the ability to operate dynamically utilizing DHCP. Or operate utilizing static IP and DNS settings.

The screenshot shows a 'Network Configuration' dialog box with three main sections: 'IP Address', 'DNS Settings', and 'Hostname Settings and Tools'.

- IP Address:**
 - ☒ Obtain an IP address automatically (DHCP)
 - ☐ Use the following IP address:
 - IP address: 192.168.53.125
 - Subnet mask: 255.255.255.0
 - Default gateway: 192.168.53.1
- DNS Settings:**
 - ☒ Obtain DNS server address automatically
 - ☐ Use the following DNS server addresses:
 - Preferred DNS: 192.168.53.240
 - Alternate DNS: (empty)
 - DNS suffix: swamp.manchac.com
- Hostname Settings and Tools:**
 - Tabs: IP Address (selected), Route, Ping, Trace
 - Host name: d2.swamp.manchac.com
 - Current Settings:**
 - IP address: 192.168.53.125
 - Subnet mask: 255.255.255.0
 - Default gateway: 192.168.53.1
 - Host name: d2.swamp.manchac.com

Buttons at the bottom: 'Apply Changes' and 'Close'.

Hostname Settings and Tools Group:

This grouping is for either the DOSIS technician or the pharmacy's IT staff. DOSIS provides some tools that can aid in troubleshooting IP connectivity within the pharmacy as well as to destination out of the pharmacy.

IP Address Tab

This tab allows for the setting of the DNS host name for the DOSIS machine. Also it displays the current IP configuration settings.

Route Tab

This tab show the current route table for the DOSIS machine.

Hostname Settings and Tools

IP Address Route Ping Trace

Kernel IP routing table

Destination	Gateway	Genmask	Flags	MSS	Window	irtt	Iface
192.168.5.0	0.0.0.0	255.255.255.0	U	0	0	0	eth2
192.168.53.0	0.0.0.0	255.255.255.0	U	0	0	0	eth0
192.168.3.0	0.0.0.0	255.255.255.0	U	0	0	0	eth1
192.168.2.0	0.0.0.0	255.255.255.0	U	0	0	0	eth3
0.0.0.0	192.168.53.1	0.0.0.0	UG	0	0	0	eth0

Ping Tab

This tab will allow a user to ping a user defined IP Address / destination to check for connectivity.

Hostname Settings and Tools

IP Address Route Ping Trace

Ping Address: 192.168.53.1

PING 192.168.53.1 (192.168.53.1) 56(84) bytes of data.
 64 bytes from 192.168.53.1: icmp_seq=1 ttl=64 time=0.715 ms
 64 bytes from 192.168.53.1: icmp_seq=2 ttl=64 time=0.279 ms
 64 bytes from 192.168.53.1: icmp_seq=3 ttl=64 time=0.262 ms

--- 192.168.53.1 ping statistics ---
 3 packets transmitted, 3 received, 0% packet loss, time 2000ms
 rtt min/avg/max/mdev = 0.262/0.418/0.715/0.210 ms

Ping!

Scroll Up

Scroll Down

Trace Tab

This table allow a user to trace a path to a user destination / IP Address.

Hostname Settings and Tools

IP Address Route Ping Trace

Traceroute Address: www.google.com

traceroute to www.google.com (74.125.67.104), 30 hops max, 60 byte packets

```

1 * * 10.238.64.1 (10.238.64.1) 16.481 ms
2 alexsysc01-gl-0-25.mid.sta.suddenlink.net (208.180.187.209) 16.827 ms 16.827 ms
3 cdm-66-76-30-177.tylrtx.suddenlink.net (66.76.30.177) 36.074 ms 38.243 ms
4 dllsosl01-10gex1-1.tex.sta.suddenlink.net (66.76.30.30) 35.145 ms 35.133 ms
5 72.14.223.10 (72.14.223.10) 34.827 ms 34.665 ms 35.036 ms
6 72.14.233.85 (72.14.233.85) 35.223 ms 35.754 ms 35.738 ms
7 72.14.238.243 (72.14.238.243) 68.807 ms 56.033 ms 57.234 ms
8 72.14.239.131 (72.14.239.131) 56.721 ms 209.85.254.249 (209.85.254.249) 56.721 ms
9 64.233.174.46 (64.233.174.46) 61.539 ms 209.85.255.198 (209.85.255.198) 61.539 ms
10 gw-in-f104.1e100.net (74.125.67.104) 57.212 ms 57.292 ms 57.356 ms
  
```

Trace!

Scroll Up

Scroll Down

Troubleshooting Guide - Appendix A

Troubleshooting Terms

When performing troubleshooting tasks, the following terms and techniques are repeated throughout the solutions.

Restart

Restarting the software consists of opening the Maintenance Tab on the HMI and pressing the Restart Button on the screen. This will restart the DOSIS software on the computer. This does NOT reboot the computer.

Reboot

1. Rebooting the system consists of opening the Maintenance Tab on the HMI and pressing the Shutdown button.

CAUTION: If you utilize the power button on the front of the PC. Push in and release the power button momentarily on the front of the computer. **DO NOT PRESS AND HOLD THE BUTTON.** By holding the button in too long, the PC will not shut down properly

2. Wait for the computer to shut down and the green light on the front under the power button to go off.
3. To start the system back up, press the power button the front of the PC.
4. The system will initialize and start.

Cycle the Cabinet Power

1. Open the bottom access panel of the DOSIS. Push in and release the power button on the front of the computer.

CAUTION: Push in and release the power button momentarily on the front of the computer. **DO NOT PRESS AND HOLD THE BUTTON.** By holding the button in too long, the PC will not shut down properly and this **CAN CAUSE AN IRRECOVERABLE DATABASE ERROR.**

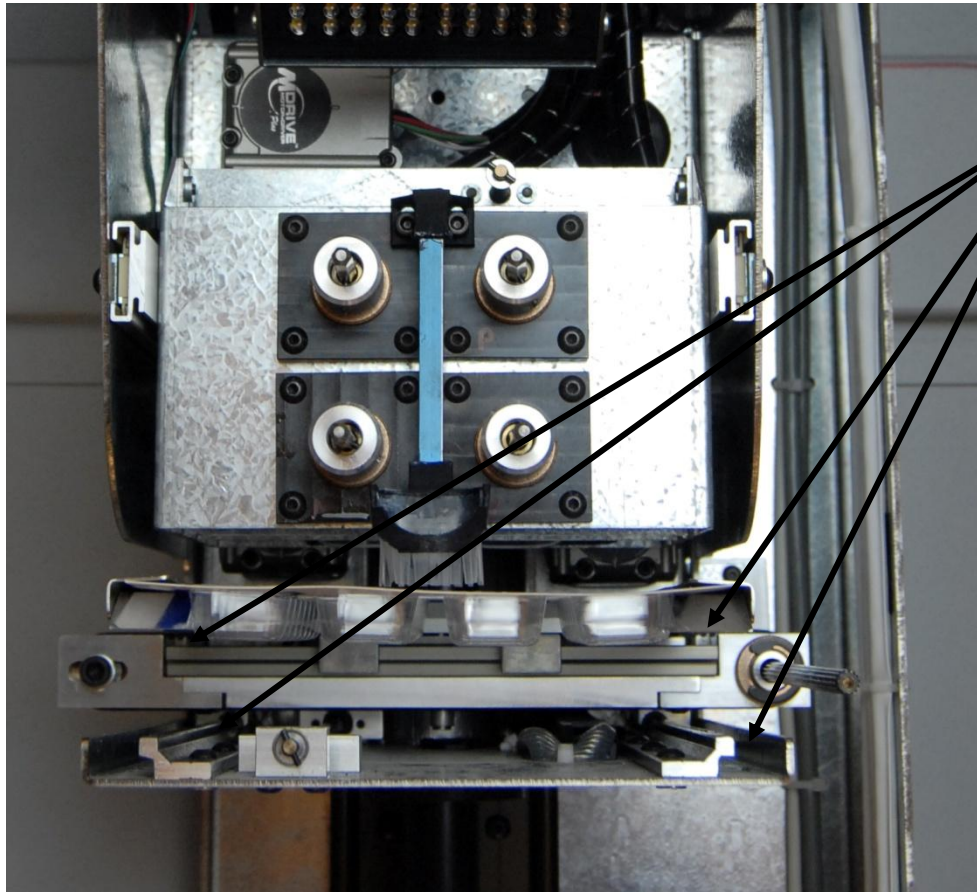
2. Wait for the computer to shut down and the green light on the front under the power button to go off.
3. Press and release the power button on the front of the uninterrupted power system (UPS).
4. Wait for the UPS to shut down and the green lights on the front to go off.
5. Press and release the power button on the front of the UPS.
6. After the UPS powers up, press the power button on the front of the computer.
7. The system will initialize and start.

Checking for Obstructions

During daily operations, you can potentially get debris on areas of the end-of-arm tooling and around the rollers and other moving parts that can interfere with the movement of the key parts of DOSIS.

Checking the End-of-Arm Tooling

The end-of-arm tooling has several areas to check when looking for obstructions. The blister card forks move in and out and side to side. The following photo depicts some of the common areas to look for obstructions.



Check the following areas for obstructions.

Obstructions can be a pill that bounced, or other trash that has gotten into the machine.

Checking the Bottom of the Cabinet

1. Remove the bottom access panel.
2. Open the packaging unit access door.
3. Open the blister card door.
4. Remove the four screws: two at the top and two at the bottom of each door.
5. Pull each door straight out until it clears and open.
6. Check the bottom of the cabinet around the backplane rail and e-chain for any type of debris.
7. Reverse the process to close the doors.

Checking for Axis Movement

1. Open the packaging unit access door.
2. Insert the override key in the DC power supply and turn.
3. Go to the Maintenance Tab on the HMI.
4. Launch the User Maintenance screen.
5. Go to the End of Arm Tooling Tab
6. Press the Safe Travel button.
7. Press the Go To Label Sealer button. The end-of-arm tooling will move to the hand-off position.
8. Now to verify that the system canister engagements all can rotate each of the following:

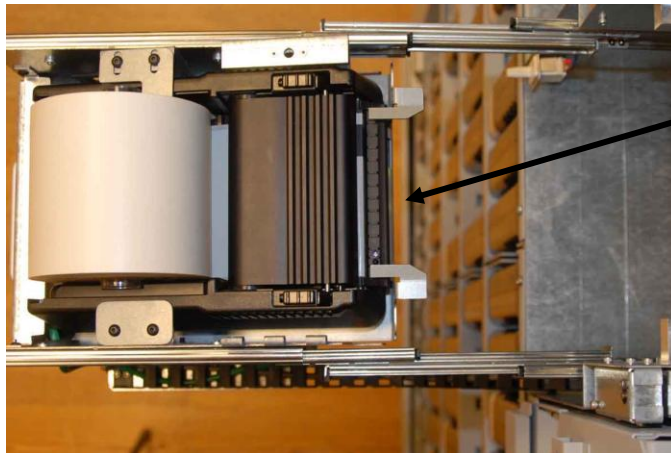
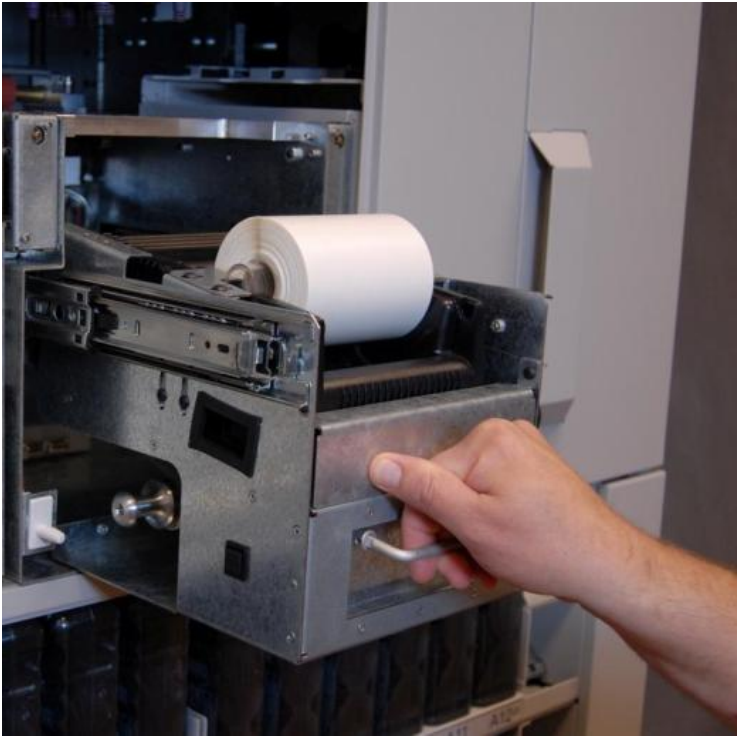
- a. Press the Spin Upper Left button, and again to stop the Upper Left motor from turning.
 - b. Press the Spin Upper Right button, and again to stop the Upper Right motor from turning
 - c. Press the Spin Lower Left button, and again to stop the Lower Left motor from turning
 - d. Press the Spin Lower Right button, and again to stop the Lower Right motor from turning
9. Press the OK button to return to the Maintenance tab.



Use this tab to check the all the axes of the end of arm tooling as well.

Check for Stuck Label

1. Open the packaging unit access door.
2. Open the access drawer with the printer.

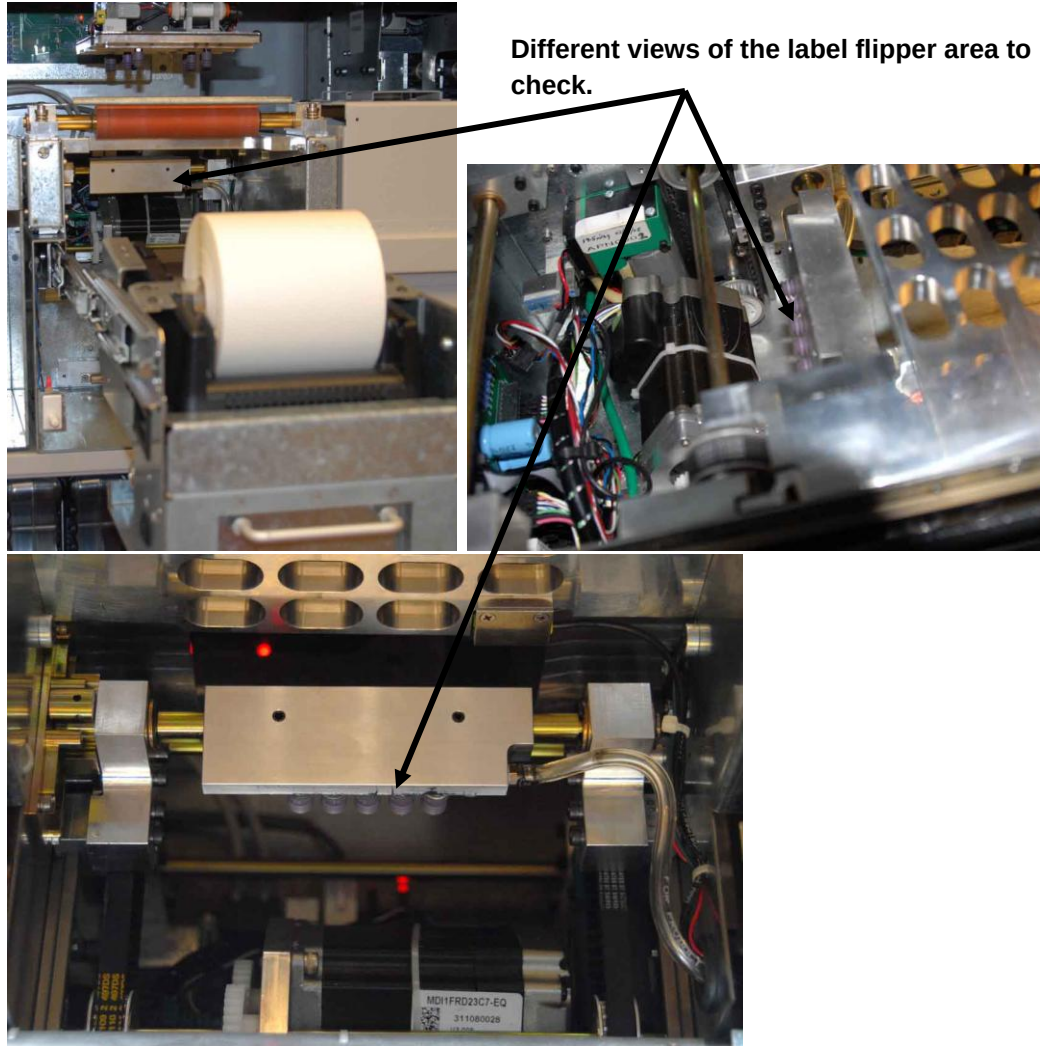


Top View of Internal Printer

Check this area for stuck label.

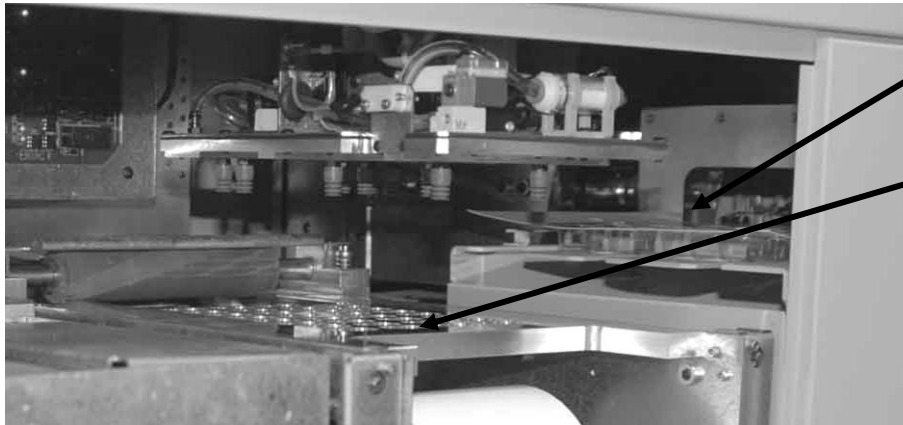
3. Check the front of the printer for a label stuck to the peeler.

4. Check on the flipper, up by the drop off location on the sealing plate.



5. Remove the label from its stuck location.
6. When finished, push the printer back into place, close the door and press run to continue.

Areas Referred to in Trouble Codes



The above photo depicts the common areas that you will have to interact with as the continues throughout the work day.

Trouble Codes and Solutions

CODE	PROBLEM	PROBABLE SOLUTION
10002	System paused	Press the RUN button on the Status Tab to continue.
10003	System stopped	Press the RUN button on the Status Tab to continue.
20002	System request to open the packaging unit access door.	Wait for the packaging unit access door to open or press the CANCEL button.
20003	Blister card door latch failed.	 If you have to access the door latch manually, insert a paper clip into the hole in the upper left corner of the door to manually release the lock.
20004	Packaging Unit Access Door latch failed.	 Use the provided key to override the lock. This will cause an E-stop if the machine is running and can have some adverse effects if you are filling a prescription when you instigate an E-stop. Use this override only as a last result.
20005	Internal messaging error.	Press the RESTART on the Maintenance Tab button to continue. If error continues, reboot the computer.
20006	Input/output board failed to open a port.	Reboot the computer. Refer to the above guidance.
20007	Software failed to start up.	Press the RESTART button to continue.
20008	Lost 48V power.	Cycle the cabinet power. Refer to the above guidance. If the problem persists, call technical support.
20009	24V power is missing.	Call technical support.
20010	Lost 24V power.	Press the RESTART button to continue. If the problem persists, call technical support.
20011	48V power missing.	Call technical support
20012	An E-stop occurred.	Close all doors and press the RUN button to continue.</instruction>
20013	Input/output board read failure.	Press the RESTART button to continue. If the problem persists, call technical support.
20014	Input/output board write failure.	Press the RESTART button to continue. If the problem persists, call technical support.
20015	Fatal software configuration error.	Call technical support.
30001	End-of-arm tooling is unsafe to travel.	In the HMI, navigate to the Maintenance tab, press the STOP button. Press the LAUNCH button in the End-of-Arm Tooling Dialogue box. In the Position tab, press the SAFE TRAVEL button. Press the OK button to return to the Maintenance tab. Press the RUN button to continue.
30002	A canister's access door not closed.	Remove the canister and ensure the door is closed. Return the canister to the system and lock the row. The system will automatically continue.
30003	End-of-arm tooling's vibratory axis(M) failed.	See Checking for Axis Movement in the above section. If the axis does not spin, call technical support.

30004	A motor failed to respond.	Press the RESTART button to continue. If the problem persists, call technical support.
30005	End-of-arm tooling failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30006	End-of-arm tooling blister card forks failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30007	End-of-arm tooling backplane failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30008	End-of-arm tooling blister card forks motor(U) failed.	Press the RESTART button to continue. If the problem persists, call technical support.
30009	End-of-arm tooling blister card forks motor(V) failed.	Press the RESTART button to continue. If the problem persists, call technical support.
30011	End-of-arm tooling motor(X) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30012	Backplane side to side axis(Y) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30013	Backplane side-to-side axis(Y) failed to position correctly.	Check for obstructions/debris on rails. Refer to the trouble shooting guide for assistance.
30014	Backplane up/down axis(Z) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30015	Backplane up/down axis(Z) failed to position correctly.	Check for obstructions/debris on rails. Refer to the trouble shooting guide for assistance.
30016	End-of-arm tooling vibratory axis(M) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30017	End-of-arm tooling angle adjustment axis(N) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30018	End-of-arm tooling angle adjustment axis(O) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30019	End-of-arm tooling angle adjustment axis(P) failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
30020	End-of-arm tooling failed to position behind a canister.	Press the RUN button to continue. If the problem persists, call technical support.
30021	End-of-arm tooling failed to position blister card, axis(u), for counting.	Press the RUN button to continue. If the problem persists, call technical support.
30022	End-of-arm tooling failed to position blister card, axis(v), for counting.	Press the RUN button to continue. If the problem persists, call technical support.
30023	Blister card is missing or misaligned.	Open the packaging unit access door and remove blister from the drop-off location or the carrying forks. When finished, press the RUN button to continue. If this problem persists, call technical support.
30024	A canister needs attention.	Remove the canister and inspect it for visible issues. Return canister to location. If the problem persists, call technical support.
40001	The packaging system failed to initialize.	Call technical support.
40002	Trolley front to back motor(A) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40003	Trolley left to right motor(B) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40004	Trolley up and down motor(C) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40005	The lid lifter motor(D) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40006	The lid roller motor(D) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40007	The lid peeler motor(E) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.

40008	The lid slider motor(E) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40009	The label applicator motor(F) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40010	The blister sealer motor(G) failed during a move.	Open the packaging unit access door and check for any obstructions. Refer to the above section for assistance.
40011	A packaging system motor failed,	Call technical support.
40012	Labeler failed to pick up the label.	Remove the label. Refer to the above section for instructions.
40013	A label is stuck on the internal printer.	Remove the label. Refer to the above section for instructions.
40014	A label is on the label applicator.	Remove the label. Refer to the above section for instructions.
40015	A label is stuck on the printer.	Remove the label. Refer to the above section for instructions.
40016	A blister card is on the sealer plate.	Open the packaging unit access door and remove it. When finished, press the RUN button to continue.
40017	A blister card is on the drop off location.	Open the packaging unit access door and remove it. When finished, press the RUN button to continue.
40018	Lids need restocking.	Open the packaging unit access door to restock. When finished, press the RUN button to continue.
40019	Failed to retrieve blister card from the drop off location.	Open the packaging unit access door and remove the blister card from the drop off location. When finished, press the RUN button to continue.
40020	Failed to drop off blister card onto the sealer plate.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40021	Failed to drop off blister card onto the sealer plate.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40023	Failed to pick up a lid from the lid roll.	Open the packaging unit access door and verify that the roll is not jammed or torn. When finished, press the RUN button to continue.
40026	A blister is on the trolley.	Open the packaging unit access door and check for a lid stuck to the trolley. When finished, press the RUN button to continue.
40027	The lid was dropped before sealing the blister card.	Open the packaging unit access door and remove the lid. When finished, press the RUN button to continue.
40028	Packaging system timed out while waiting for the label to print.	Call technical support for assistance.
40029	Failed to drop blister in to output bin.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40030	Failed to drop blister in to output bin.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40031	Failed to drop blister in to output bin.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40032	Failed to drop blister in to output bin.	Open the packaging unit access door and remove the blister card. When finished, press the RUN button to continue.
40033	Packaging system failed.	Open the packaging unit access door and remove any blister cards and/or lids. When finished, press the RUN button to continue.
40034	Unable to communicate with the internal label printer.	Call technical support.
40038	Lid roll is empty.	Verify and replenish lid roll. When finished press the RUN button to continue.
50001	Blister storage process failed to initialize.	Call technical support for assistance.
50002	Blister storage process failed to initialize.	Press the RESTART button to continue. If the problem persists, call technical support.
50003	Blister feeder axis(H) failed to initialize.	Open the blister card door and check for obstructions.
50004	Blister feeder extender axis(I) failed to initialize.	Open the blister card door and check for obstructions.
50005	Packaging system failed to retrieve a blister card from the	Open the blister card door and check to ensure the card stack is straight and clear of obstructions.

	storage unit.	
50006	Blister storage and feeder system failed.	Press the RESTART button to continue. If the problem persists, call technical support.
50007	Blister card stock is empty.	Open the blister card door and restock the blisters.
50008	A door is not closed.	Close the blister card door to continue initializing the system.
60001	An internal system software function failed.	Press the RESTART button to continue.
70001	Camera configuration failed.	Press the RESTART button to continue. If the problem persists, call customer support.
70002	Camera configuration failed.	Press the RESTART button to continue. If the problem persists, call technical support.
80001	Pill signature data not present.	Call technical support.
80002	Maximum missed camera frames.	If problem persists, call technical support.
80003	The filling system errored.	Press the RUN button to continue. If the problem persists, call technical support.
80004	Canister needs attention.	Remove the canister in the attention state and inspect for visible defects. If the problem persists, call technical support.
80005	Canister in system needs replenishment.	Replenish the indicated red canister and return it to the system.
80006	Canister bar code read failure.	Remove the canister and ensure the access door is closed and there are no smudges on the bar code. Return the canister to the system. If the problem persists, call technical support.
80007	Canister bar code verification failure.	Remove the canister and ensure the access door is closed and there are no smudges on the bar code. Return the canister to the system. If the problem persists, call technical support.
80008	Canister registration error.	Remove the canister and return it to the row. If the system fails to register again, follow these steps. 1. Open the end-of-arm tooling Maintenance tab. 2. Move the end-of-arm tooling to the position in the Position tab. 3. In the Canister tab, turn on the EOAT lights. 4. Press the Snapshot button in the Imager tab. 5. If the camera is lined up on the registration marks, call technical support. 6. If it appears there is a smudge on the lens, you will have to clean the lens with an approved lens cleaner and cloth by moving the EOAT to the LSU position and cleaning it. 7. If the problem continues, call technical support.
80009	A critical memory error has occurred.	Power down the system and restart. Refer to the above section for assistance.
80010	Missing blister card.	Please verify that a blister is in the end-of-arm tooling blister card forks. 1. Launch the EOAT maintenance window in the HMI. 2. Move the EOAT to the LSU position. Open the packaging unit access door. 3. Verify if a blister is in the forks. If not, open the cabinet doors and check to see that the blister did not drop to the bottom of the cabinet. 4. If present, remove the blister from the forks. 5. After clearing the blister, close all the doors and press the RUN button. 6. If the problem persists, call technical support.
80011	End-of-arm tooling failed to move to the blister pickup position.	Press the RUN button to continue. If the system does not recover, call technical support.
80012	Blister drop-off failure.	Open the packaging unit access door and remove the blister from the end-of-arm tooling forks. Refer to error 8010 for assistance.
80013	Row lock failure.	Press the RUN button to continue.
80014	Backplane side-to-side axis(Y) failed to move to a safe position.	Press the RUN button to continue. If the problem persists, call technical support.
80015	Failed to move to a canister location.	Press the RUN button to continue. If the problem persists, call technical support.
80016	Failed to sense the blister card after picking it up.	Open the blister card door and remove the card from the end-of-arm tooling forks. If the problem persists, call technical support.

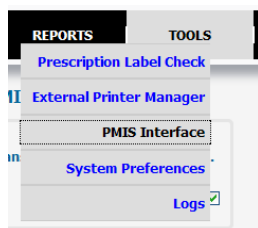
80017	Blister drop off failure.	Open the packaging unit access door and remove the blister. Press the RUN button to continue.
80018	Blister drop off failure.	Open the packaging unit access door and remove the blister. Press the RUN button to continue.
80019	Failed retrieving blister from storage unit.	Open the blister card door and remove the blister from the end-of-arm tooling. If the problem persists, call technical support.
80020	Blister card is missing.	Refer to the trouble shooting guide for further instructions.
80021	Blister card is still on the end-of-arm tooling forks.	Open the blister card door and remove the blister from the forks.
80022	Blister card storage area error.	Open the blister card door and inspect for any obstructions. Remove the blister if it is in the end-of-arm tooling.
80023	End-of-arm tooling is not safe to travel, (u/v)axis.	Press the RUN button to continue. If the problem persists, call technical support.
80024	Failed blister card handoff to the end-of-arm tooling.	Open the blister card door and clear any cards/obstructions. If the problem persists, call technical support.
80025	End-of-arm tooling axis(X) failed to engage the canister.	Press the RUN button to continue. If the problem persists, call technical support.
80026	The system encountered a critical error.	Reboot the computer. If the problem persists, call technical support.
80027	Blister card movement error during fill.	Inspect the end-of-arm tooling rails for obstructions.
80028	Blister card hand off failed.	Open packaging unit access door and remove blister card. Press the RUN button to continue.

Hardware Failure Workarounds

Removing Prescriptions for Manual Filling

In the event that DOSIS has a major hardware failure and is unable to fulfill prescriptions through the Pharmacy Management Information System (PMIS) you can turn off the interface and reprint the prescription labels to DOSIS's external printer for manual filling.

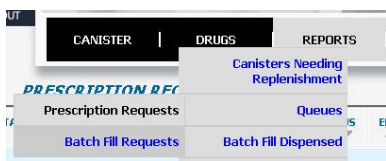
1. Ensure DOSIS is halted by pressing the Stop button on the HMI Maintenance tab.
2. On the DOSIS web access, point to TOOLS and select PMIS Interface from the drop down menu.



3. In the Interface Settings dialog box, ensure the Dispensing On: check box is not selected. You can select or deselect by clicking the check box.
4. Click the Update button. This stops new prescriptions from entering the queue.



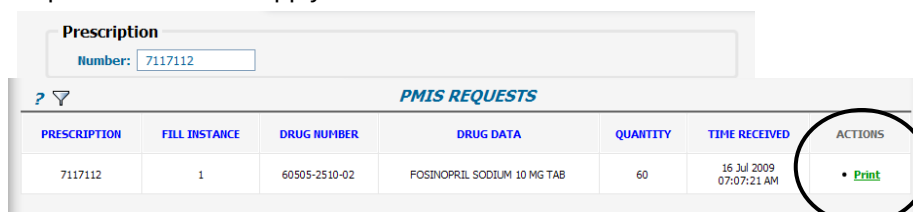
5. On the menu bar, point to REPORTS, Queues and select Prescription Requests.



6. Make a note of the prescription numbers in the queue by exporting (PDF or CVS) for record purposes.
7. After you have the numbers referenced, on the menu bar, point to REPORTS and select PMIS Requests
8. Click the filter icon to filter the prescriptions.



9. In the Prescription dialog box, enter the first prescription number referenced from the queue report and click the Apply button.



10. In the ACTIONS column, click the Print hyperlink. The system will send the prescription to the external printer.

11. Continue steps 8, 9 and 10 for all the queued prescriptions.
12. After printing the prescriptions, you must now cancel the prescriptions from the queue.
13. On the menu bar, point to REPORTS, Queues and select Prescription Requests.
14. In the ACTIONS column, click Cancel to remove each prescription from the queue.