

eyecon[™] 9420

Eyecon 9420

Pill Counting, Inventory, and Validation System



Instruction Manual

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1 General information and warnings

1.1 About this manual

This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1 and 1.1 headings shown above. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

1.1.1 Text conventions

The buttons used to interface with the Eyecon are via the touch screen display. The buttons are shown in **bold** letters and reflect the case of the displayed button.

Screen headings will appear in ***bold italic*** (i.e. ***START***) and reflect the case of the displayed heading.

Displayed messages appear in *italic* type and reflect the case of the displayed message.

1.1.2 Special messages

Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.



DANGER!
THIS IS A DANGER SYMBOL.
DANGER MEANS THAT FAILURE TO FOLLOW SPECIFIC PRACTICES OR PROCEDURES WILL CAUSE INJURY OR DEATH.



CAUTION!
This is a Caution symbol.
Cautions give information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.



NOTE: ***This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.***

1.2 Installation



DANGER: RISK OF ELECTRICAL SHOCK. NO USER SERVICEABLE PARTS. DO NOT ATTEMPT TO SERVICE THE EYECON BY REMOVING THE COVER OR OPENING THE UNIT. REFER TO QUALIFIED SERVICE PERSONNEL FOR SERVICE.



CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the Panasonic Corporation CR-2032L/BN, CR-2032N/BN, or CR-2032L/BE. Dispose of used batteries according to the manufacturer's instructions.

CAUTION: Replace the detachable mains power supply chord with 18/3 AWG SVT Type 240VAC 10A.

ATTENTION: Il y a danger d'explosion s'il y a un remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.



DO NOT EXPOSE THE EYECON TO RAIN OR MOISTURE. DO NOT EXPOSE THE EYECON UNIT TO DRIPPING OR SPLASHING LIQUIDS.

1.2.1 Unpacking

Caution! The Eyecon contains components that can be damaged by rough handling. Unpack all items carefully.

1.2.2 Intended use

Eyecon™ uses machine vision technology to accurately count tablets and capsules for Rx dispensing.

Machine vision technology allows for identification of most foreign substances and pill variations during the counting and dispensing process.

The specialized technology of the Eyecon™ does not support the counting of gel-caps.



IF THE EQUIPMENT IS USED IN A MANNER NOT SPECIFIED BY THE MANUFACTURER, THE PROTECTION PROVIDED BY THE EQUIPMENT MAY BE IMPAIRED.

1.3 Sharp objects

Do not use sharp objects such as screwdrivers or long fingernails to operate the buttons.

1.4 Training

Do not attempt to operate or complete any procedure on the Eyecon unless you have received the appropriate training or read this Instruction Manual.

To avoid the risk of RSI (Repetitive Strain Injury), place the machine on a surface which is ergonomically satisfactory to the user. Take frequent breaks during prolonged usage.

1.5 Warranty policy

Avery Weigh-Tronix warrants its products to be free from defects in material and workmanship for a period of two (2) years from the original date of purchase. Standard "Terms and Conditions of Sale" apply.

Factory parts and labor are provided at no charge for up to two full years from the original date of purchase.

The obligation of Avery Weigh-Tronix is limited to repairing or replacing equipment and components that upon inspection, testing and verification by Avery Weigh-Tronix are found defective. Avery Weigh-Tronix extends this warranty only upon proper installation and use of the equipment in the application for which it was intended and does not warranty equipment that has been subject to any of the following conditions:

- Alterations, misuse or unusual physical or electrical stress beyond the written specifications of that equipment.
- Exposure of electronic components to Electrostatic Discharge (ESD) resulting from improper handling or installation.
- Damage caused by freight carriers, negligence, fire, flood or other natural disaster.

In the event equipment is repaired or replaced under the terms of the warranty, the warranty of the repaired or replaced equipment is limited to the remaining portion of the original warranty period or 90 days, whichever is greater.

Avery Weigh-Tronix is responsible for repair, replacement or, at the sole discretion of Avery Weigh-Tronix, credit of nonconforming equipment under the conditions and terms of this warranty. Avery Weigh-Tronix is not liable for the cost of repairs, on-site labor or any travel-related expenses performed by another party unless otherwise agreed in writing.

Transportation charges for material shipped to Avery Weigh-Tronix for warranty repair is paid by the shipper. Avery Weigh-Tronix will pay the transportation charges, via standard carrier, for the return of items repaired or replaced under warranty. Failure to handle and ship equipment correctly will void the warranty on that equipment.

The sole remedy under this warranty is to repair, replace or provide credit for equipment at the sole discretion of Avery Weigh-Tronix. Avery Weigh-Tronix is not liable for expenses either direct or consequential that arise from the use of or inability to use the product. Avery Weigh-Tronix is not responsible or liable for losses, injury, or property damage due to the installation or failure of the product.

For warranty, product service, and product registration visit www.eyeconvpc.com or call 866-260-6540.

1.6 Specifications

Platter Surface Area	48 sq inch
Dimensions	28" H x 11" W x 17.5" D
Screen	7" Color LCD flat panel touch screen
Barcode Scanner	Integrated 1D & 2D scanner
Supported symbologies	The Eyecon 9420 scanner supports hundreds of symbologies. See <i>Supported bar code symbologies</i> on page 75 for the complete list.
Supply Voltage	100 VAC - 240 VAC
Frequency Range	50/60 Hz
Current	0.75 A
Temperature Range	50 - 90 °F
Communication	(2) USB, (1) Ethernet
Relative Humidity	Up to 70% at 90°F
Altitude of Use	Up to 2000 meters
Interface	Contact Avery Weigh-Tronix for details on work flow integration
Accuracy	99.97% count accuracy
Design	Open flow, easy to clean
Approvals	FCC, UL
Warranty	Two year limited

1.7 FCC statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

1.8 UL

Evaluated to UL 61010-1 3rd edition UL/cUL.

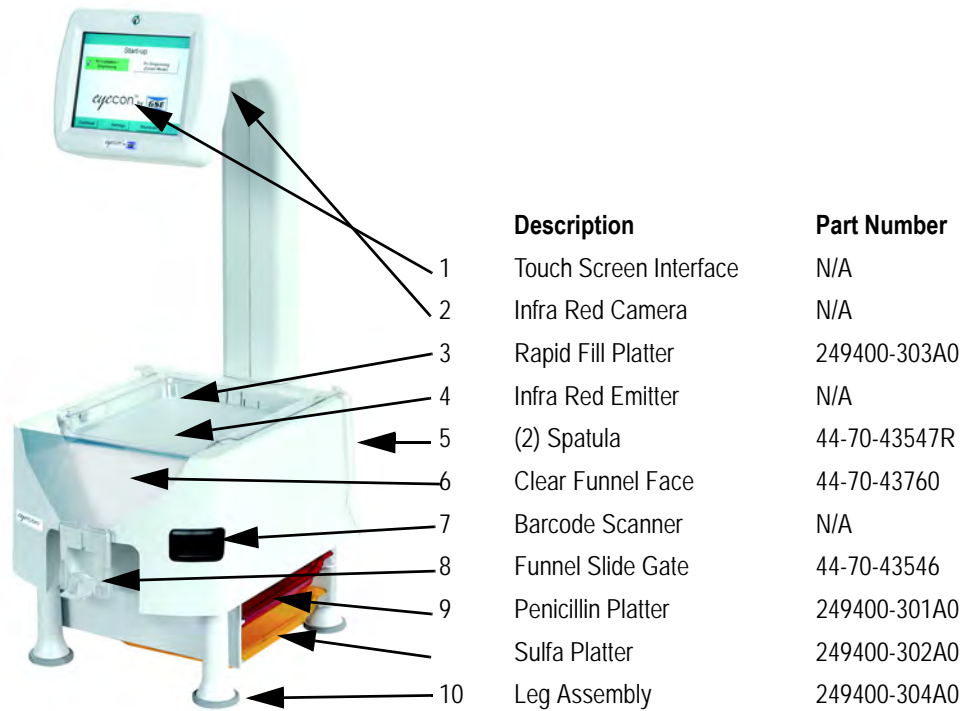
2 Introduction

2.1 Video training

Copy this URL into your browser to see the full list of training videos for the Eyecon 9420: https://www.youtube.com/watch?v=ysdKd1Q1iME&list=PLI-hAOdLOP0kPO52rWfNTPbP0rK9RG_ap

2.2 General description

Refer to the diagram below for part descriptions and field replaceable and non-field replaceable parts.



2.2.1 Product identification

Each Eyecon has a specific part number and a unique serial number. Please refer to [Figure 2.1](#).

This information will be needed for periodic updates, service, and warranty claims.

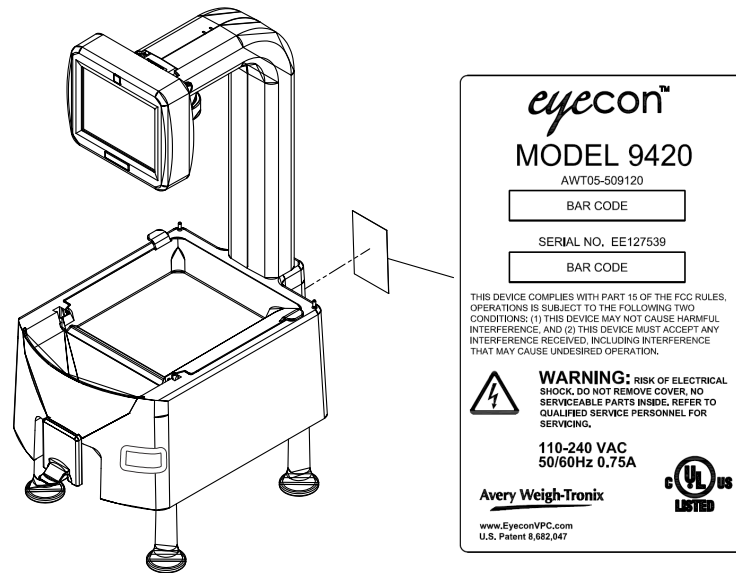


Figure 2.1 Product Markings

2.3 Setup

Place the Eyecon on a level surface and away from direct sunlight. Refer to [Figure 2.2](#) for dimensions of the Eyecon.

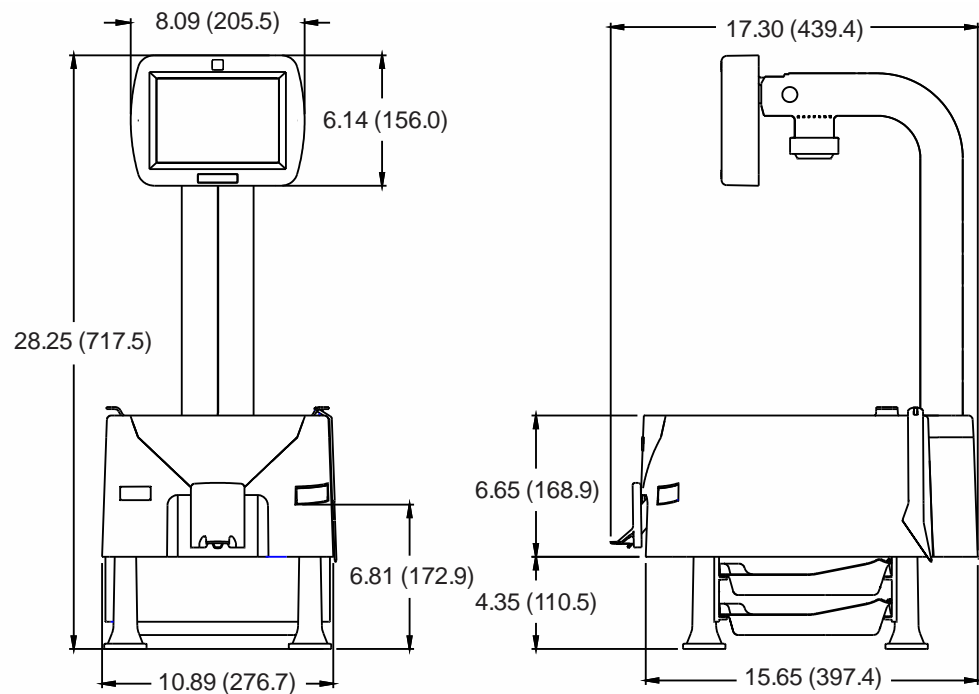


Figure 2.2 Eyecon dimensions

2.3.1 Sulfa and penicillin platter

The sulfa (yellow) and penicillin (red) platters are used to avoid cross contamination and are standard with Model # 179400-004311. The platters store easily under the base of the Eyecon.

The platters come with the product but extras may be ordered. See the part numbers below:

- When ordering the Penicillin platter only, use part number 249400-301A0.
- When ordering the Sulfa platter only, use part number 249400-302A0.

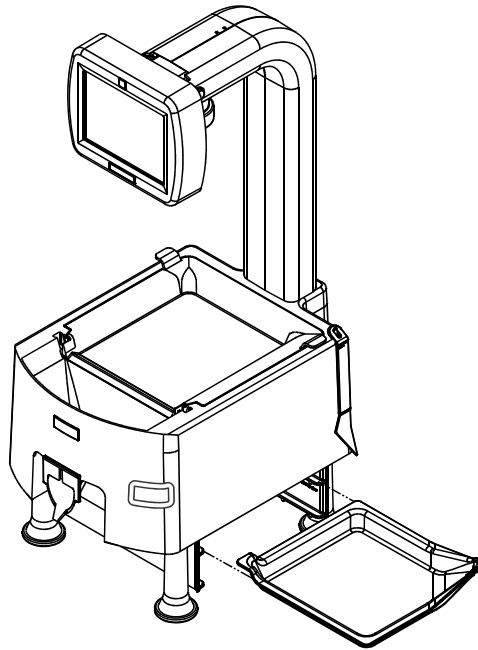


Figure 2.3 Storing Sulfa and Penicillin platters

2.4 Preparing the Eyecon for use

1. Insert the power cable into the receptacle on the back of the Eyecon. Refer to [Figure 2.4](#).
2. The Eyecon must be installed near an easily accessible socket outlet. Plug the Eyecon power cord into the outlet.



Figure 2.4 Power connector

3. Protective Earthing is provided by the Earthing pin of the IEC60320 type appliance inlet.

2.5 Turn on the Eyecon

When you plug in the Eyecon, the unit will power up in five to ten seconds. There is no need to press the pushbutton on the back of the unit.



Do not use the pushbutton to turn off the Eyecon. Refer to [Figure 2.4](#) for power connector location. The Eyecon is designed to be turned off through the touch screen menus. Refer to [page 20](#) for details on shutting down the Eyecon.

If power is lost or the unit has been shut down, fully depress and release the power pushbutton to turn on the Eyecon. Refer to [Figure 2.5](#) for power pushbutton location

If a network cable is to be connected plug it into the receptacle on the back. Refer to [Figure 2.5](#).

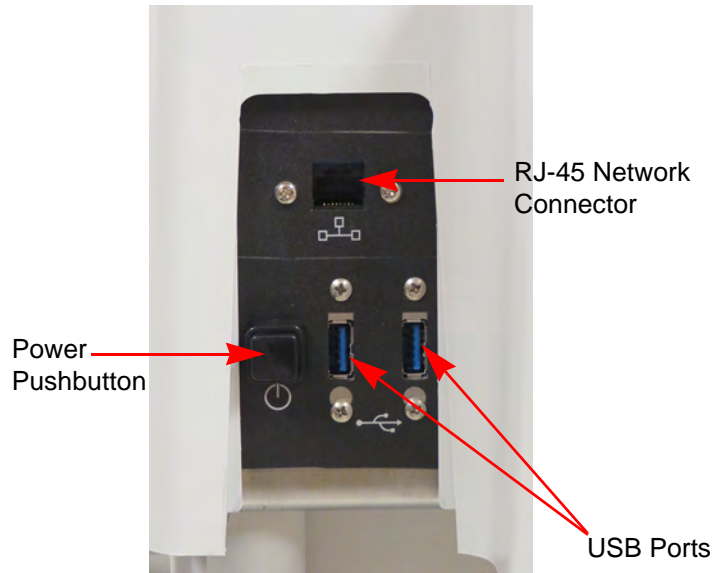


Figure 2.5 Eyecon Back Panel

For interfaces having a power pin such as external USB ports, ensure that the connectors and wires are suitably rated for 5VDC 0.5A. All connection from/to the product shall be with 60950 certified equipment only.

2.6 Routine maintenance

Always turn off the machine and unplug the power cord before starting any routine maintenance to avoid the possibility of electric shock.

Make sure that it is placed securely on a flat and level surface.

2.7 Cleaning the machine

Be sure to keep the Eyecon unit clean and free of dust. Do not use harsh detergents or spray water on the Eyecon unit.

It is recommended the Eyecon unit be cleaned on a daily basis. Powder and pill dust tends to accumulate on surfaces such as the rapid fill tray and funnel gate. Follow the steps below for effective cleaning.



You can use isopropyl alcohol in a spray bottle to wet surfaces and then wipe with a soft cloth or paper towel.

2.7.1 Funnel and slide gate

1. Slide the gate up while pulling out away from the housing as shown in the photo below.



2. Clean the clear funnel gate by running it under a faucet. Make sure it is completely dry before reattaching to the housing.



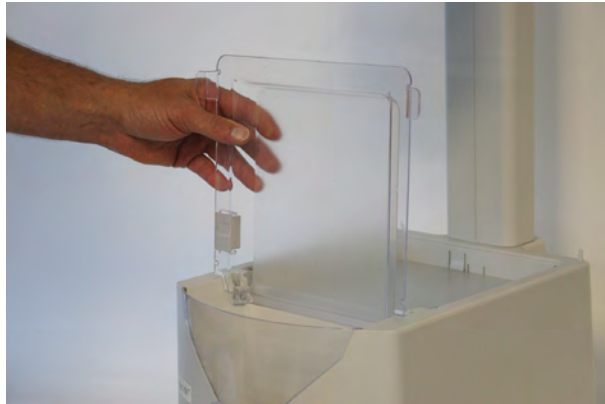
3. Clean the pill funnel by running a slightly damp rag through it a few times.
4. Clean the funnel gate bracket rails to remove all pill dust.

5. Reinstall the funnel gate by sliding down the funnel post until it snaps into place.



2.7.2 Rapid fill counting tray

1. Lift the counting tray up to a vertical position.

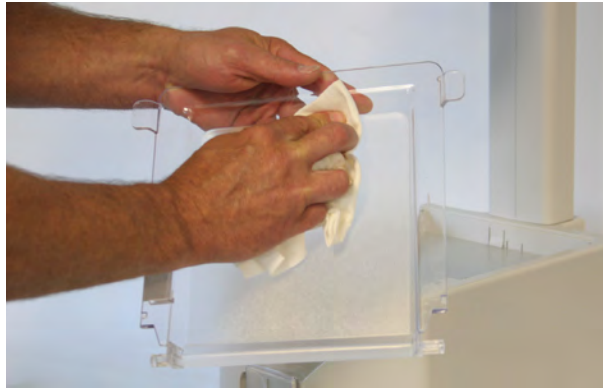


2. Tilt the tray to the left, the right side should pull out of the enclosure.



3. Pull up on the tray to remove completely.

4. Clean the tray by running under a faucet. Make sure it is completely dry before reattaching to housing.



5. Before reinstalling the tray, clean the diffuser surface under the tray with a soft damp cloth.



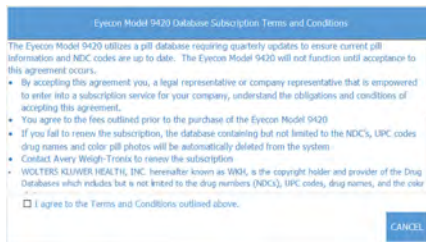
6. Reinstall rapid fill tray onto Eyecon unit by holding the tray vertical and push it into the slots in the housing.

2.8 Licensing agreement

When the Eyecon is powered up for the first time a *Database Subscription Terms and Conditions* screen will be displayed, shown at right.

Before the Eyecon can be used, you must agree to these terms.

1. Read the terms and conditions thoroughly and check the “**I accept**” box on the lower left and then click the **OK** button which appears.



The *End User License Agreement (EULA)* screen at right appears.

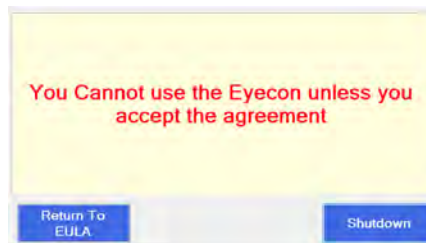
2. Read the EULA and press **Accept** to advance to the *START* screen.



- 2a. If you press the **Cancel** button instead, the warning screen at right is displayed.

Press the **Return To EULA** button to return to the Licensing Agreement.

Press the **Shutdown** button to turn off the Eyecon.



2.8.1 Medi-Span copyright and disclaimer information

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Disclaimer: The information contained in the Medi-Span databases is intended to supplement the knowledge of physicians, pharmacists, and other healthcare professionals regarding drug therapy problems and patient counseling information. This information is advisory only and is not intended to replace sound clinical judgment in the delivery of healthcare services. You are advised to review the definitions, functionality, and limitations of each Medi-Span database.

Medi-Span disclaims all warranties, whether expressed or implied, including any warranty as to the quality, accuracy, and suitability of this information for any purpose.

2.9 Software updates

The software must be updated quarterly to uphold the Licensing Agreement. This can be done through the Eyecon 9420 menus, if it is connected to the internet, or you can download the software update from www.eyeconvpc.com. These updates contain drug data/photo updates and application enhancements.

In the USA, the third party supplier for licensed drug data is Wolters Kluwer Health (Medi-Span).

2.9.1 Update warnings

Warnings will be provided when the expiration date on the data has passed. There are four levels of warning that can be chosen in the Eyecon Settings menu. Table 1.1, below, shows the warning frequency based on your warning level choice (choice is made in **Settings>Auto Updater>Medi-Span Expiration Warning Level** menu. Warning interval is dependent on the length of time since the expiration date has passed.

Table 2.1 Update Warning Frequency

Time since expiration	Standard	Level 2	Level 3	Level 4
1st week post expiration:	One warning per day.	1/week	none	none
2nd week post expiration:	One warning per 4 hours.	1/day	1/day	1/day
3rd week post expiration:	One warning per hour.	1/four hours	1/four hours	1/day
4th week post expiration:	One warning every 10 minutes.	1/hour	1/two hours	1/four hours
Last 2 days	One warning every 5 minutes	1/ten minutes	1/thirty minutes	1/hour
Beyond the 4th week the third party licensed drug data is removed from the Eyecon.				

2.9.2 Install software updates

1. If you're Eyecon is connected to the internet you can download the latest updates by using the **Auto Updater** menu item and choosing **Update Now**.

If you are not connected to the internet, you can download the latest software updates from the Eyecon website (eyeconvpc.com) to your computer and place on a USB memory stick and transfer the updates to the Eyecon. Be sure the memory stick does not contain an older version of an update file before copying the current update file.

2. Plug the USB memory stick into an unoccupied USB port of the Eyecon. See [Figure 2.6](#) for USB port location.

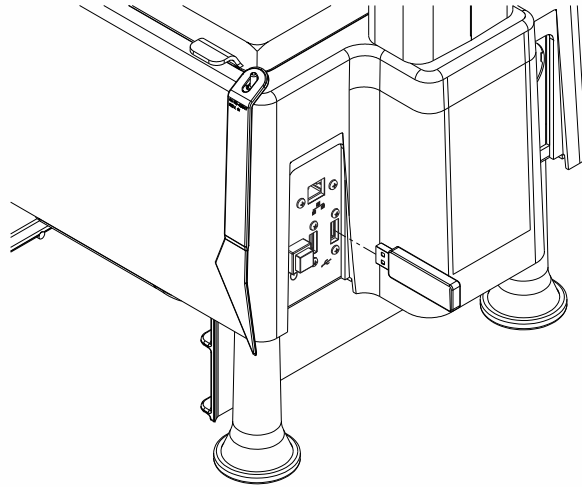


Figure 2.6 USB memory stick Installation

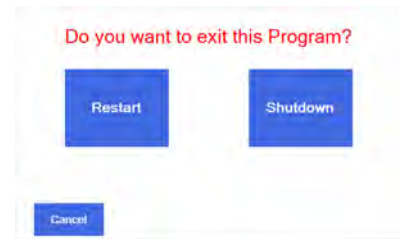
3. Follow the prompts displayed on the Eyecon.

If no message appears when the USB memory stick is plugged in, then follow the instructions below.

If you see a message asking if you want to reboot the Eyecon, click on NO.

2.10 Turn off the Eyecon (shutdown)

The **Shutdown** button in the **START** screen is used for restarting or turning off the Eyecon. You will see the display at right. You can choose to **Restart**, **Shutdown** or **Cancel**.



2.10.1 Restart

Press the **Restart** button in order to initialize a reboot sequence and return to the **START** screen.

2.10.2 Shutdown

1. Press the **Shutdown** button to turn off the Eyecon.

2. Press **Cancel** to terminate the process.

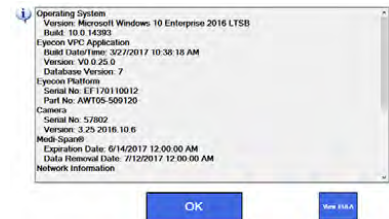


The barcode scanner may come on when it detects motion even if the Eyecon is off.

2.11 About Eyecon screen

The **About Eyecon 9420** screen provides information specific to the Eyecon. Including software release date, serial number and Medi-Span data.

1. From the **START** screen, press **Settings**.
2. Press **Skip Login**.
3. Press **General** at the top of the **Configuration Manager** list at the left of the screen.
4. Press **About EYECON 9420** at the top of the list on the right side of the screen.



The screen shown in the illustration above is displayed.

5. Press **OK** to return to the **START** screen or press **View EULA** to view the Software Licensing Agreement.

2.12 Back up the Eyecon data



CAUTION!

The Eyecon is a computer based device and it is strongly suggested to back up all transaction data and images periodically. Otherwise saved data can be permanently lost!!!.

See [Backup / Restore menu on page 39](#) for more details on backing up report data and images.

2.13 Helpful hint

2.13.1 Navigating the touch screen

Use your finger to press the buttons on screen or to swipe/move scrollable lists.

2.14 Definitions

There are several terms used throughout this manual that will be helpful to define at the start.

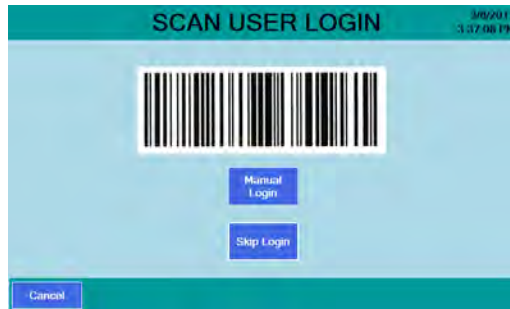
<i>Vial</i>	Patient's pill/capsule container to hold their counted Rx.
<i>Vial label</i>	The label that is applied to the patient's Rx vial. The label may contain some or all of the following information in written or barcode form: the drug number, the Rx number and the quantity of pills.
<i>Patient pamphlet</i>	This paper may contain information that cannot fit on the vial label such as patient instructions and barcodes.
<i>Stock bottle/item</i>	Bulk storage bottles or boxes that hold pills, capsules, creams or syringes for dispensing.
<i>Stock bottle label</i>	The label on the bulk storage bottle that shows the required information about the contained drug.
<i>NDC #</i>	National Drug Code. It has three segments separated by dashes. One segment typically has a leading zero that is dropped in order to fit into a 10 digit UPC number. It is present on all Rx and most non-prescription medication packages in the US. The full 11 digit format is XXXXX-XXXX-XX but this can vary as usually a leading zero is dropped from one of the segments.
<i>UPC barcode</i>	Currently most drugs in the USA have a UPC barcode which is associated with the drug's NDC number.
<i>2D barcode</i>	The DSCSA (Drug Supply Chain Security Act) requires a 2D barcode on stock items beginning November 2017. This format contains UPC number, the expiration date, serial number and lot number of the drug.
<i>Rx barcode</i>	This is a barcode that contains the Rx number. This may also contain other information as needed by the pharmacy.
<i>Rx</i>	Short for prescription.

2.15 Detecting misfit objects

The Eyecon identifies broken pills and non-matching shapes very well but is not infallible. There may be instances when broken pills may not be detected or an incorrect drug will have a size and shape that escapes detection. Barcode validation is the number one way to ensure the correct drug is dispensed.

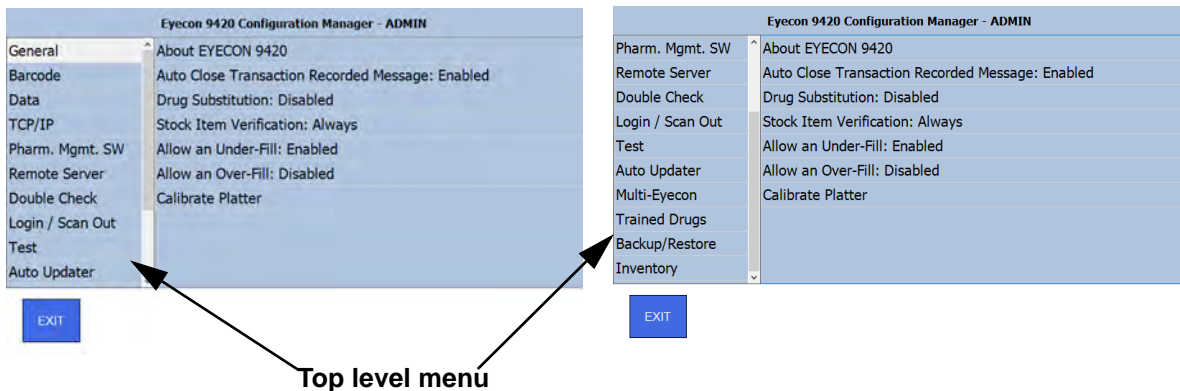
3 Settings menu

Press the **Settings** button on the **START** screen to access the **SCAN USER LOGIN** screen, shown below.



If a user has been setup they can scan their login barcode or press the **Manual Login** button and key in their login ID.

If no users have been set up, press the **Skip Login** button. This takes you to the *Configuration Manager* screen, shown below.



Notice the left side of the screen contains the top level menu and since they can't all fit on the screen you can use your finger to scroll the list up and down. When you touch the item you want in the list, the choices under that item appear on the right side of the display.

[Table 3.1](#) shows the entire main list of items and a quick description of what they are used to configure or view.

Table 3.1 Configuration Manager List

Eyecon 9420 Configuration Manager	
Main Menu Item	Description
General	Access this to see information about the 9420, enable or disable the Auto Close Recorded Message, Drug Substitution, Stock Item Verification, Allow an Under-fill or Over-fill and to calibrate the platter.
Barcode	Access this to set the Barcode Type, lengths, offsets, to enable or disable the Rx Scan in Count Mode and to enter the Barcode Test Mode.
Data	Access this to set the Transaction Purge Time, Delete Report Data and see the Tray Photo Count.
TCP/IP	Use this to access the TCP/IP settings

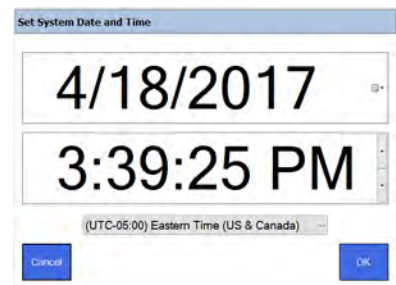
Eyecon 9420 Configuration Manager	
Main Menu Item	Description
Pharm. Mgmt. SW	Access this to setup an interface between Eyecon and your pharmacy system.
Remote Server	Access this to configure the Eyecon to Rx fill results back to your pharmacy system.
Double Check	Access this to set up double counts and back counts.
Login/Scan Out	Access this to set up user login and scan out parameters.
Test	Access this to test the scanner, camera, touchscreen and speaker.
Auto Updater	Access this to manage updates for the Eyecon.
Multi-Eyecon	Access this to manage communication among multiple connected Eyecons
Trained Drugs	Access this to import or export the trained pill images to or from this Eyecon.
Backup/Restore	Access this to backup and restore the database or configuration.
Inventory	Access this to manage inventory data.

3.1 Setting time and date

To set the time and date, which appear in the upper right corner of the *START* screen, tap on the time and date text to reveal the screen at right.

To set the date, tap the small calendar icon on the right side of the screen and choose the year, month and day from the small display that appears.

To set the time, tap the unit you want to change (hour, minute, second or PM/AM) and use the up or down arrow on the right to increase or decrease the value. You can also set your time zone in the bottom drop down list.



Press **OK** when finished and the *START* screen is displayed.

3.2 General menu

Use the *General* menu, shown at right, to see information about the 9420, enable or disable the Auto Close Recorded Message, Drug Substitution, Stock Item Verification, Allow an Under-fill or Over-fill and to calibrate the platter. All of these are described on the following pages.

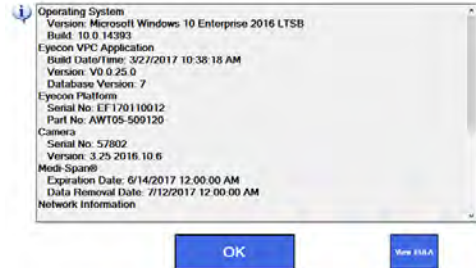


3.2.1 About EyeCon 9420

This screen, shown at right, lists various pieces of information about the Eyecon.

Press **View EULA** to view the End User License Agreement (EULA)

Press OK to exit the screen.



3.2.2 Auto Close Transaction Recorded Message

This is the second item in the General menu. The screen shown at right, allows you to enable or disable the Auto Close Transaction Recorded Message. Tap your choice and press **OK** to accept the change or **Cancel** to abort a change.

If enabled, the screen at lower right is displayed saying the transaction has been recorded. This message will appear briefly after every counting transaction.

If disabled the message screen will be skipped when a count is performed.

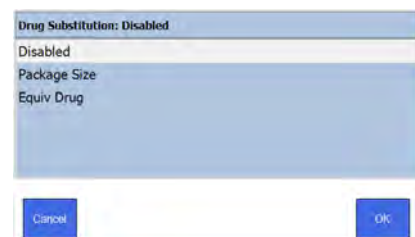


3.2.3 Drug Substitution

This is the next menu item *General* menu.

- If *Disabled*, drug substitution is not allowed.
- If *Package Size* is selected, the user will be prompted to approve the substitution if the package size of the scanned item differs from the drug specified for the Rx.
- If *Equiv Drug* is selected, the user will be prompted to approve the substitution if the package size of the scanned item differs from the drug specified for the Rx OR if the selected drug is a generic equivalent.

Tap your choice and press **OK** to accept the change or **Cancel** to abort a change.

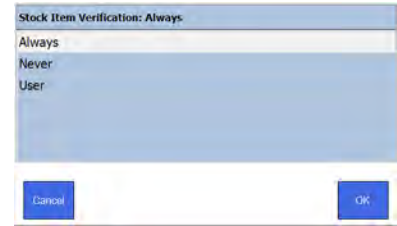


3.2.4 Stock Item Verification

Choose whether to verify a stock item scan every time, never or per user.

- If *Stock Item Verification* is set to *Always*, the **Scan Stock Item** screen will appear every time the Rx label is scanned.
- If *Stock Item Verification* is set to *Never*, the **Scan Stock Item** screen will never appear after the Rx label is scanned and will go to the **Counting** screen.
- If *Stock Item Verification* is set to **User**, scan the stock item to proceed or press the **Skip Validation** button to proceed to the **Counting** screen.

Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *General* menu.



3.2.5 Allow an Under-Fill

This item lets you enable or disable the ability to allow an under-fill of an Rx.

Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *General* menu.



3.2.6 Allow an Over-Fill

This item lets you enable or disable the ability to allow an over-fill of an Rx.

Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *General* menu.



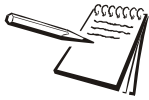
3.2.7 Calibrate Platter

This function is used to calibrate the counting platter viewing area if the count is unstable.

1. Remove all foreign objects from the counting platter.
2. Press the *Calibrate Platter* menu item and the platter will be automatically calibrated.
3. *Platter Calibration Successful* will be displayed when the calibration is complete, shown at right.



- Press **OK** to return to the *General* menu.

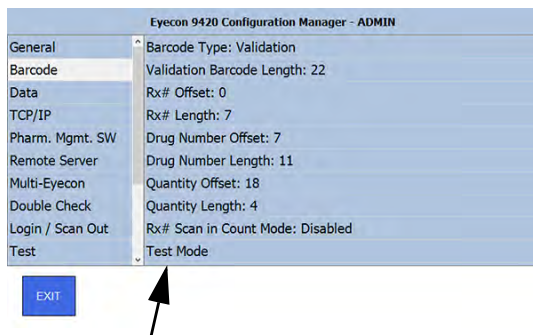


If the **Unable To Calibrate** message appears, clean surface of counting platter and light diffuser. Try the *Calibrate Platter* process again.

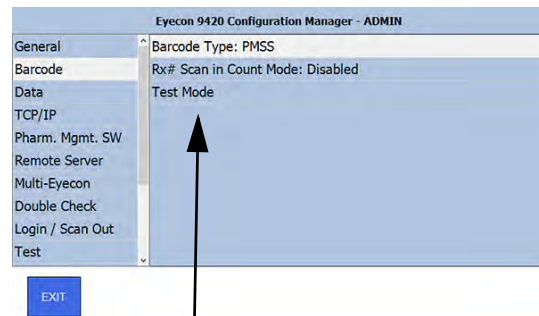
This completes the *General* menu.

3.3 Barcode menu

Access this to set the barcode type. Depending on which type you choose, *Validation* or *PMSS*, a different set of choices appears in the right hand screen. Each is explained below.



List of items if *Validation* is selected.



List of items if *PMSS* is selected.

3.3.1 Barcode Type

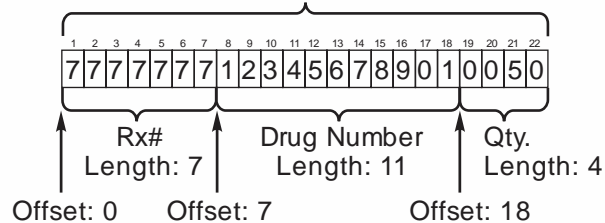
Tap Barcode Type at the top of the right hand screen and select a method of Rx filling; *Validation* or *PMSS*. Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *Barcode* menu.

Validation

If you select the *Validation* mode you can use the choices on the right hand screen to set the total length of the barcode and then the offsets and lengths of each part of the barcode: *Rx#*, *Drug Number* and *Quantity*. This is illustrated by the example below:

Validation Barcode Length = Overall barcode length

Example = 22



PMSS

This selects PMSS mode. There are only two choices under *PMSS*; *Rx Scan in Count Mode* and *Test Mode*.

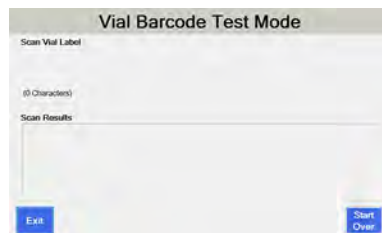
Rx Scan in Count Mode

Enable or disable the necessity to scan the Rx number in count mode.

Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *Barcode* menu.

Test Mode

Select *Test Mode* to open the Vial Barcode Test Mode window, shown below:

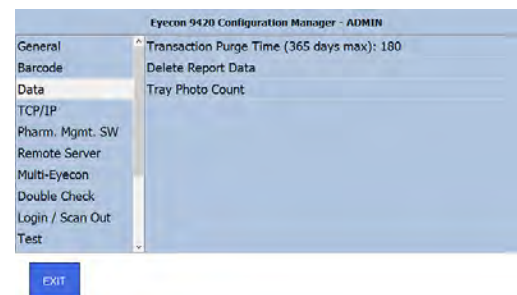


While viewing this screen, scan a vial label and the Rx numbers will be shown. Press **Start Over** to test another label or **Exit** to return to the *Barcode* menu.

This completes the *Barcode* menu item.

3.4 Data menu

Click on *Data* to see the menu choices shown at right and explained below:



3.4.1 Transaction Purge Time

Tap *Transaction Purge Time* to bring up the numeric keypad. Type in the number of days to hold data before it is purged and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *Data* menu. You can select up to 365 days.

3.4.2 Delete Report Data

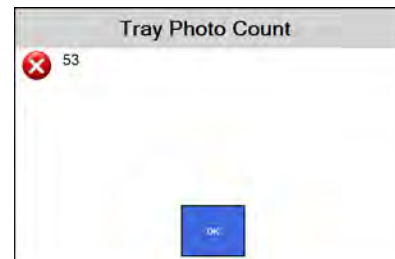
Tap *Delete Report Data* and the screen at right is displayed. Tap **YES** to delete all transaction records or tap **NO** if you do not want them deleted.

The screen returns to the Data menu.



3.4.3 Tray Photo Count

Tap *Tray Photo Count* to see the last pill count. See screen at right. Press OK to return to the Data menu screen.



3.5 TCP/IP menu

Tap *TCP/IP* to see the menu choice at right.

Tap TCP/IP Settings to see the next screen. The current adapter settings are shown on the left side of the screen. The right side of the screen is for making changes to the settings. Use the keypad buttons on the right side of the screen to change the corresponding adapter settings: IP Address, Subnet Mask, Gateway and DNS address.

Press **Set** to accept the settings and copy them to the *Current Adapter Settings*, shown on the left side of the screen:

- If you press **Cancel** the changes are not implemented and the screen returns to the TCP/IP menu.
- If you press **Exit** the changes are accepted and the screen returns to the TCP/IP menu.

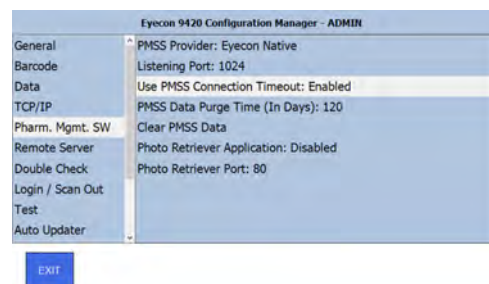


Generally you should set the Adapter Settings to Dynamic Address (DHCP) and then press **Set** to allow your router to assign an IP address to your Eyecon. If an IP address of 0.0.0.0 appears, there may be a problem with the connection to the network. Check your cable or connections. Once you have an IP address we recommend changing the *Adapter Settings* to *Static Address (Manual)* and edit the last segment to use an address in the range your IT department has configured for your router. This will prevent a router from changing your dynamic address and causing a loss of connection to the pharmacy system.

Using the Dynamic Address will also properly set the other (Subnet Mask, Gateway and DNS) addresses. Your IT person may pick other values based on your network configuration.

3.6 Pharm. Mgmt. SW menu

This stands for **Pharmacy Management Software**. Tap on the *Pharm. Mgmt. SW* menu to see the choices shown at right. Section 3.6.1 below has notes on things you need to know about connecting to a management system. Each menu item at right is explained in the following sections.



3.6.1 General notes on connecting to a pharmacy management system

Here are the steps to connect an Eyecon with your pharmacy system.

1. In the *Barcode menu* [on page 27](#) set the *Barcode Type* to *PMSS*.
2. Connect an ethernet cable between your Eyecon and your network hub.
3. In the *TCP/IP menu* [on page 29](#) establish an IP address.
4. Pick the PMSS provider in the menu item *PMSS Provider:* [on page 31](#).
5. Specify a listening port. See *Listening Port* [on page 31](#).
6. Set the *Use PMSS Connection Timeout* [on page 31](#) to *Disabled* unless otherwise directed.
7. Set the purge time. Most users leave this at the default value of 120 days but you can adjust as desired. See *PMSS Data Purge Time (In Days):* [on page 31](#).

McKesson Enterprise Rx specific information

If you choose the McKesson Enterprise Rx system, there is an additional menu item which appears called the *ADS Server Mode*. You can choose between *Buffered* or *Immediate*.

Buffered This selection causes the Eyecon to store the information for the Rx. When a barcode is scanned for that Rx the counting process begins.

Immediate This selection causes the Eyecon to store the information for the Rx and the Eyecon begins the filling process when the data is received.

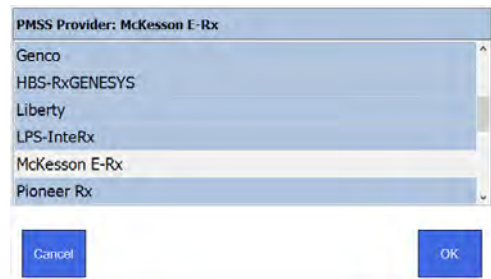
This completes the steps for setting up the Eyecon to receive Rx data from a pharmacy system.

To setup the Eyecon to send the Rx filling results back to the pharmacy system follow these steps:

1. In the *Remote Server menu* [on page 33](#) set *Send Count Results (Bidirectional)*: to *Enabled*.
2. Set the *Remote Server IP address* to the IP address of the computer of the pharmacy system. Consult your pharmacy provider for this information.
3. Set the *Remote Server Port Number* to the Port that the pharmacy system is listening to. Consult your pharmacy provider for this information.
4. Set the *Remote Server Connect Timeout*. This defaults to 5000 milliseconds and can be changed if your pharmacy provider requires a different setting.

3.6.2 PMSS Provider:

Tap this *PMSS Provider* to see a scrolling list of PMSS providers, shown at right. Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. The screen returns to the one shown above.



3.6.3 Listening Port

Tap *Listening Port* to see the numeric keypad. Use this to enter the listening server port number. If the port number is not known, contact your network administrator or pharmacy software provider for further assistance. This number must match the port number to which the pharmacy provider is sending their Rx data. The default is 1024 and is used by many of the pharmacy software providers.

Key in the listening port number. Press **OK** to accept the entry.

3.6.4 Use PMSS Connection Timeout

Choose to enable or disable a connection timeout with the pharmacy provider. Disable the timeout to emulate the function of the older version of the Eyecon. Enable the timeout if your pharmacy system requires this function.

3.6.5 PMSS Data Purge Time (In Days):

Tap *PMSS Data Purge Time (In Days)*: to see the numeric keypad. Use this to set the number of days in which PMSS data will purge. The default period is 120 days. The maximum number of days is 450.

Press **OK** to accept the entry.

The PMSS data sent by the pharmacy system to the Eyecon is held in a table. Everyday the table is purged of any entries older than the chosen value. This also tracks partial fills that have been dispensed and warns the user if an Rx has already been filled.

3.6.6 Clear PMSS Data

Tap *Clear PMSS Data* and the warning screen at right is displayed.

- Press **YES** to delete all of the PMSS Rx transactions from the Eyecon. This can be used if the Eyecon is being moved to a new site or the database were to be corrupted. Screen returns to the *Pharm. Mgmt.* menu.



- Press **NO** to decline. Screen returns to the *Pharm. Mgmt.* menu.

3.6.7 Photo Retriever Application:

Tap *Photo Retriever Application:* to see the screen at right. You can choose to enable the photo retriever application so an external computer can request the pill tray photo file from the Eyecon. Check with your pharmacy software provider to determine if they support viewing of the pill tray photos from within their application.



3.6.8 Photo Retriever Port:

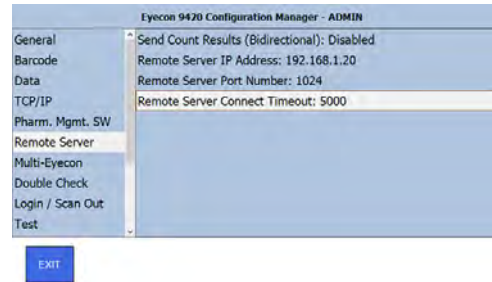
Tap *Photo Retriever Port:* to bring up the numeric keypad. Key in the port number that the Eyecon will be listening to for retrieval of the pill tray photos.

This completes the *Pharm. Mgmt. SW* menu.

3.7 Remote Server menu

The Remote Server menu item is used to set up bi-directional communication between the Eyecon and a remote server.

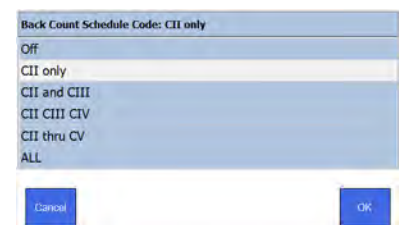
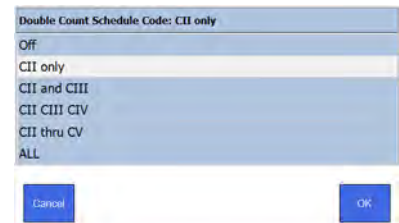
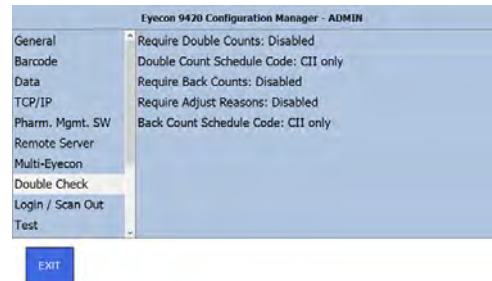
- The *Send Count Results (Bidirectional)*: must be enabled in order to communicate.
- The *Remote Server IP address*: must be entered using the numeric keypad which appears when this is chosen.
- The *Remote Server Port Number*: must be entered using the numeric keypad which appears when this is chosen.
- The *Remote Server Connect Timeout*: is used to set the time, in seconds, that the Eyecon will attempt to connect to the remote server before it times out and stops trying.



3.8 Double Check menu

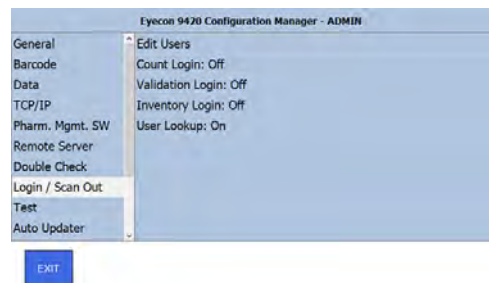
The *Double Check* menu is shown at right. The choices are explained below.

- *Require Double Counts*: - Enable or disable the requirement to perform double counts.
- *Double Count Schedule Code*: - Choose the Schedule Code from the list that appears, shown at right. Tap **OK** to accept the change or **Cancel** to abort a change and return to the *Double Check* menu.
- *Require Back Counts*: - Enable or disable the requirement to perform back counts.
- *Require Adjust Reasons*: - Enable or disable the requirement to specify an adjust reason when the final back count does not match the expected back count.
- *Back Count Schedule Code*: - Choose the Back Count Schedule Code from the list that appears, shown at right. Tap **OK** to accept the change or **Cancel** to abort a change and return to the *Double Check* menu.



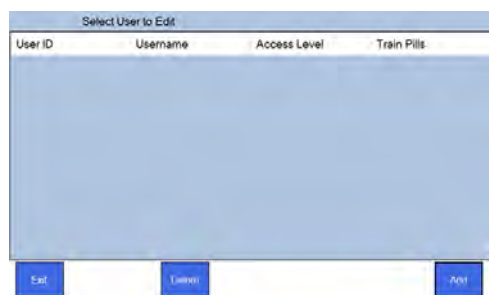
3.9 Login / Scan Out menu

The *Login / Scan Out* menu is shown at right. Use this to add or delete user profiles and adjust login routines. Each item is explained below.



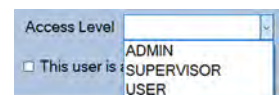
3.9.1 Edit Users

Tap *Edit Users* and you will see the table at right. This will list the users you have added and granted access to certain levels of the Eyecon's functions. Upon initial powerup there will be no users entered.



Tap the **Add** button to access *Add New Users* screen, shown at right. Enter the information for each box:

- *User ID* - Tap the keyboard button and enter the User ID contained in the login barcode. To determine the number in the barcode, go to *Test menu on page 35* and select *Scanner Test*. Scan the barcode, record the number displayed and type that in the *User ID* field in the screen at right.
- *User Name* - Tap the keyboard button and enter the User Name.
- *Password* - Tap the keyboard button and enter the Password for this user.
- *Access Level* - Tap the down arrow and you will see a drop down list, shown at right. Select the level of access you are assigning to this user.
- *Allowed to Train Pills* - If this user has permission to enter a new drug, change an existing drug or is allowed to train pills, tap in the small box next to the text. A checkmark appears when selected.



See the sample screen filled out at right. Tap on **Add User** after all information is entered to save the information or tap on **Cancel** to exit without saving the information.

If you add the user the User table appears with the new user information added, as shown at right. Continue adding users as needed.

User ID	Username	Access Level	Train Pills
12345	Jane Doe	USER	

To edit any user, select their name and tap the **Edit** button.

3.9.2 Count Login, Validation Login, and Inventory Login

For each of these items there are three choices: *Off*, *Pre-Login*, and *Scan-Out*.

This lets you set if or when a login is required for each of the three items. Choose *Off* so logins are not required. Choose *Pre-Login* to require the user to login before starting counting, validation or inventory. Choose *Scan-Out* to require the user to scan out when finished with a procedure.

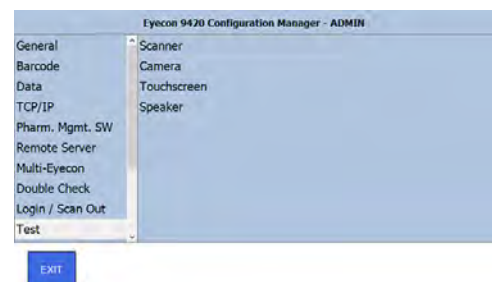
3.9.3 User Lookup

Choose to turn the user lookup function *On* or *Off*.

This completes the *Login / Scan Out* menu.

3.10 Test menu

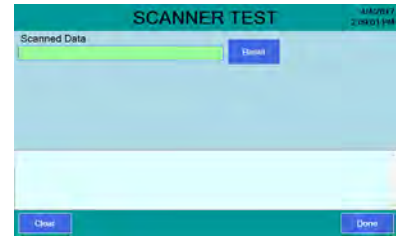
The Test menu, shown at right, allows you to test the scanner, camera, touchscreen and speaker of the Eyecon.



3.10.1 Scanner test

Tap on *Scanner* and the screen at right is displayed.

Test the scanner by scanning a stock bottle barcode. If the scanner is operating properly, the barcode number will be displayed in the green window. The number will also be displayed in the bottom of the screen.



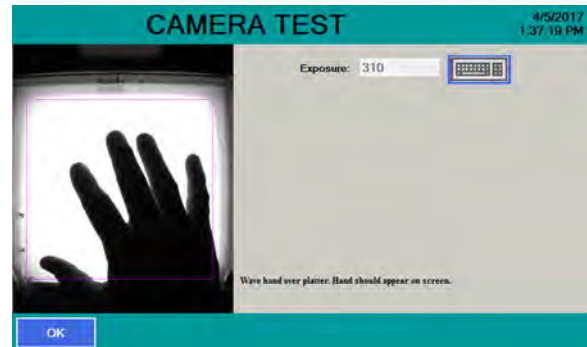
Press **Reset** to test another barcode. The first barcode number disappears from the green window but remains in the bottom window. All subsequent scans will save the number in the bottom screen. To clear this list press the **Clear** button.

When finished press **Done** to return to the *Test* menu.

3.10.2 Camera test

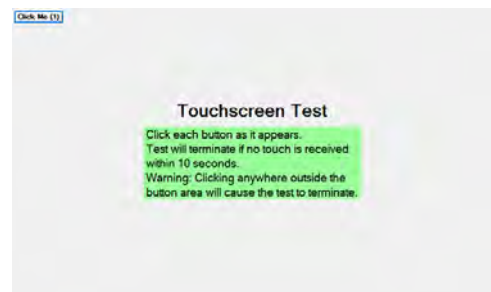
Press *Camera* to verify the camera is operating properly with the camera test. Pour pills in the pill platter or hold hand over the platter to confirm an image is being displayed.

The keypad button lets you adjust the exposure number for the camera, if needed.



3.10.3 Touchscreen test

Press *Touchscreen* to bring up the test screen shown at right. Follow the instructions to test the touchscreen.



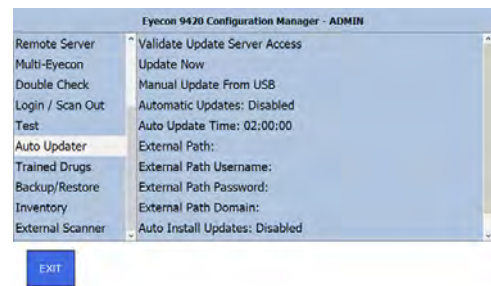
3.10.4 Speaker test

Press *Speaker* to start a tone playing from the Eyecon speaker. Press **OK** to stop the test and return to the *Test* menu.

3.11 Auto Updater menu

Tap on *Auto Updater* to see the menu choices at right.

Each item is explained below.



3.11.1 Validate Update Server Access

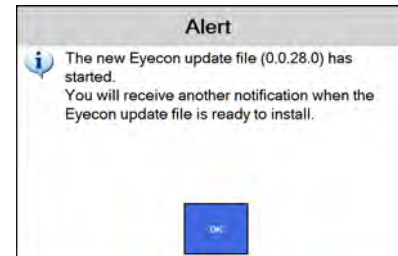
Tap on this to check if the server access is valid and the remaining days in the subscription. See the example screen at right. Press **OK** when done viewing screen.



3.11.2 Update Now

Press this to begin downloading of the latest Eyecon update. You will see a display similar to the one at right. The download will continue until it is complete and a message will appear asking if want the update installed.

If the update version is the same as the installed version, a message appears to let you know you are using the latest version.



3.11.3 Manual Update from USB

If you have an update file on a USB memory stick you can insert that into the USB port and tap this menu choice to begin the update. An error message will appear if you press this and there is no memory stick installed.

When you insert a USB stick with a newer update file, the Eyecon will auto-detect this and display the message shown at right. Follow the onscreen prompts.



3.11.4 Automatic Updates:

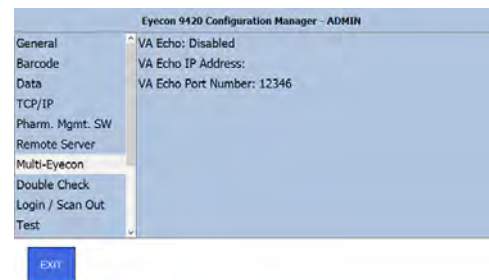
You can setup the Eyecon to automatically update on a regular schedule. The first step is to enable the update using this menu choice. Use the next seven menu items to configure the auto update. Choose a time of day when you want the update to occur. This commonly takes place at night so the default is 2:00 AM.

- *Auto Update Time:* - Choose time of day for the auto update.
- *External Path:* - You must choose the next three items before entering the path to the external server.
- *External Path User name:* - Enter the user name for the external path.
- *External Path Password:* - Enter the password for the external path.
- *External Path Domain:* - Enter the domain name for the external path.
- *Auto Install Updates:* - Enable or disable the downloaded update to be installed automatically once the download is complete.

This completes the *Auto Updater* menu

3.12 Multi-Eyecon menu

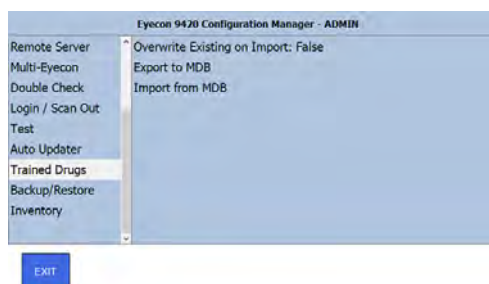
The Multi-Eyecon menu is shown at right. This allows two Eyecons to be connected via a crossover Ethernet cable. It was designed for the Veterans Administration (VA). The three items needed to set up this function are explained below.



- *VA Echo:* - Select this and you can choose to enable or disable the function.
- *VA Echo IP Address:* - Select this and use the keypad that appears to enter the IP address being used to communicate.
- *VA Echo Port Number:* - Select this and use the keypad that appears to enter the IP port number being used to communicate.

3.13 Trained Drugs menu

Use the *Trained Drugs* menu, shown at right, to import or export the TrainedDrugs.mdb file. The menu choices are explained below.



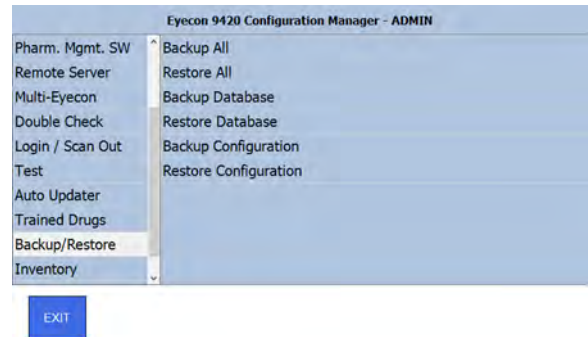
- *Overwrite Existing on Import:* - Select *False* to stop an imported file from overwriting the existing file. Select *True* if you want an imported file to overwrite the existing file.
- *Export to MDB* - Select this to export the TrainedDrugs.mdb file to a USB memory stick inserted in the USB drive of the Eyecon.

- *Import from MDB* - Select this to import the TrainedDrugs.mdb file from a USB memory stick inserted in the USB drive of the Eyecon.

3.14 Backup / Restore menu

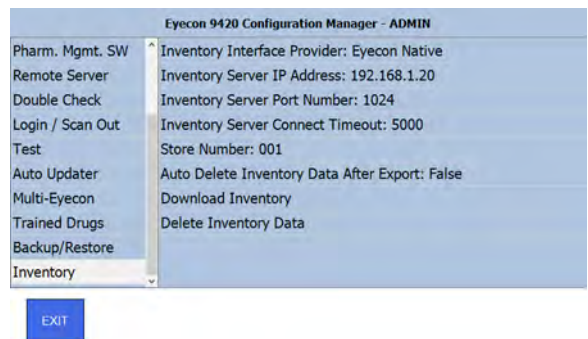
Use the *Backup / Restore* menu to backup or restore the database and Eyecon configuration files.

- *Backup All* - Select this to backup both the database and configuration files to a USB memory stick inserted in the USB port of the Eyecon.
- *Restore All* - Select this to restore both the database and configuration files from a USB memory stick inserted in the USB port of the Eyecon.
- *Backup Database* - Select this to backup the database file to a USB memory stick inserted in the USB port of the Eyecon.
- *Restore Database* - Select this to restore the database file from a USB memory stick inserted in the USB port of the Eyecon.
- *Backup Configuration* - Select this to backup the configuration files to a USB memory stick inserted in the USB port of the Eyecon.
- *Restore Configuration* - Select this to restore the configuration file from a USB memory stick inserted in the USB port of the Eyecon.



3.15 Inventory menu

Use the *Inventory* menu to manage the inventory data. Each choice is explained below.



3.15.1 Inventory Interface Provider:

Tap this and you see the screen at right.

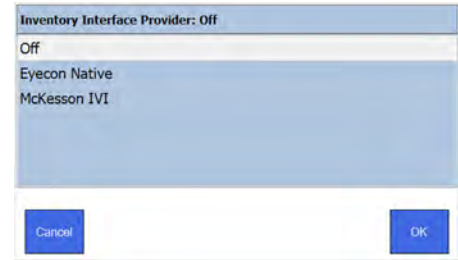
Off - Select this to disable the inventory interface.

Eyecon Native - Select this to use the native Eyecon interface to query and send inventory counts back and forth with the pharmacy system. If you pick this item, extra menu items appear in the *Inventory* menu. They are:

- *Inventory Server IP Address:*
- *Inventory Server Port Number:*
- *Inventory Server Connect Timeout:*
- *Store Number:*

McKesson IVI - Select this if you are using the McKesson Enterprise Rx system. If you pick this item, extra menu items appear in the *Inventory* menu. They are:

- *Server URL:*
- *Server Timeout (ms):*
- *Import Security Certificate:*
- *Display Quantity on Hand (QOH):*
- *Test McKesson IVI Communication:*
- *Store Number:*



Enter the IP address where the inventory is being sent.

Enter the Port number where the inventory is being sent.

Enter the amount of time the system will try to connect in milliseconds.

Enter a store number if part of a chain of stores.

Enter the URL for the server.

Enter the amount of time the system will try to connect in milliseconds.

Choose if you want to import the certificate file, interface.cer, located on a connected USB device into the VPC application, overwriting any existing security certificate.

Enable or disable the display of the quantity on hand.

Tap this to test if communications are functioning. A message appears telling you if it is working or if it failed.

Enter a store number if part of a chain of stores.

3.15.2 Auto Delete Inventory Data After Export: -

Tap this item and choose *True* to delete inventory information on the Eyecon after the export is finished. Choose *False* to retain the inventory data.

3.15.3 Download Inventory -

Select this to download/export the inventory data. The message at right appears if the download/export was successful.



3.15.4 Delete Inventory Data -

Choose this to delete all inventory information from the Eyecon. A warning message appears asking if you are sure you want to do this. Make your choice and the display returns to the *Inventory* menu.

4 Eyecon operation

4.1 START screen

Four modes of operation are offered.

- **Count Only** is a basic counting mode where the stock bottle NDC barcode is scanned or the NDC is manually entered recalling associated drug information. Rx is then counted by dispensing pills on the counting platter. See *Count Only mode* on page 43.
- **Validation** provides an additional level of patient safety by assuring the stock bottle NDC barcode matches the Rx label barcode and the correct quantity is dispensed. See *Validation mode operation* on page 45.
- **Physical Inventory** offers a means of maintaining an inventory count / cycle count of stock on hand. See *Physical Inventory mode* on page 52.
- **Auditor** gives you access to saved transactions, photos of dispensed pills and the ability to adjust the audit time frame. See *Audit reports* on page 70.



Button	Description	Reference Page(s)
Validation	Advance to the Validation mode	
Count Only	Advance to the Count Only mode	
Physical Inventory	Advance to the Physical Inventory mode	
Auditor	Advance to the Auditor	
Settings	Change Eyecon settings	
Shutdown	Restart or turn off Eyecon	

4.2 Count Only mode

This mode is used to count pills quickly when you don't have a method to validate the Rx, such as when there is no validation barcode or a pharmacy system interface.

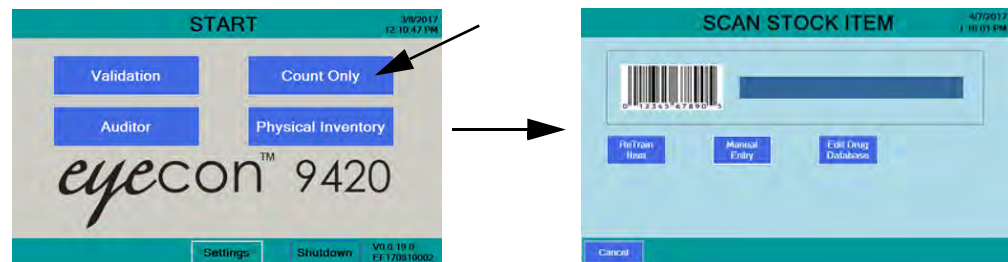
As you begin or end a session, you may be asked to scan in or manually enter your login ID. This is determined by the settings in *Count Login*, *Validation Login*, and *Inventory Login* on page 35. Follow the onscreen prompts when asked for an ID. See *Edit drug database* on page 57 for more information.

The steps below assume you login or scan-out when requested by the Eyecon. Those steps are skipped for brevity.

4.2.1 Counting

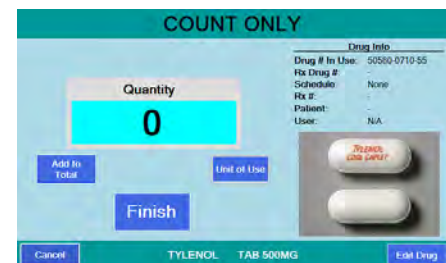
1. From the *START* screen press the **Count Only** button ...

The *SCAN STOCK ITEM* screen, shown below, is displayed.



2. Scan the stock bottle barcode ...

The display at right appears. A photo of the drug will be shown. If the drug photo does not exist or it is disabled, that will be displayed in place of the photo.

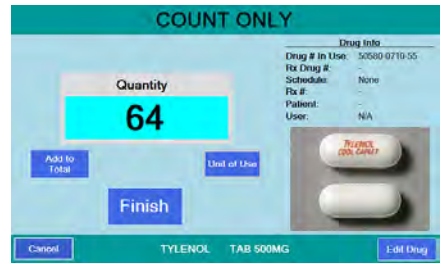


See *Train or Retrain a pill image* on page 64 to Re-Train an existing pill image or if the pill is new to the system.

See *Manual NDC entry* on page 56 if the barcode does not scan.

If NDC information is not present in the database, **NDC not found!** screen will appear. See *Drug Number Not Found* on page 56 for further information.

- Pour pills onto counting platter. See *Best counting practice on page 57*.
- Scrape excess pills into the funnel and return them to the stock bottle.



- With the correct quantity displayed, press the **Finish** button ...

A beep will sound and a message will be briefly displayed saying *Transaction Recorded*, as shown at right. The *SCAN STOCK ITEM* screen is displayed.



- Dispense pills to the patient vial. See *Best filling practice on page 58*.
- Scan another stock bottle or press **Cancel** to return to the *START* menu.



See *Unit of Use for pill counting on page 59* for details.

See *Dispensing large quantities on page 63* for more information.

If any details on the right side of the *COUNT ONLY* screen are incorrect, press the **Edit Drug** button. See *Edit drug database on page 57*.

4.3 Validation mode operation

Validation mode allows two methods of obtaining the Rx information. Which method you're using is set in the Barcode Type menu item. See *Barcode Type* on page 27.

If Barcode Type = Validation

Your pharmacy software must be configured to print a barcode which contains at least two of the following: Rx#, Drug Number and Quantity. Most pharmacy software providers are aware of the Eyecon's barcode requirements and can easily add this to your Rx printout.

When using this method you will be scanning a validation barcode, as described above, to start the filling process.

If Barcode Type = PMSS

The selection means your Eyecon is interfaced with your pharmacy management software system (PMSS). See *Pharm. Mgmt. SW menu* on page 30. Typically when an Rx is printed, the PMSS sends the Rx details to the Eyecon through the Ethernet or USB connection. There are advantages to this choice: the Eyecon displays the patient name during the dispensing process and if our bidirectional interface is supported, Eyecon can send the Rx filling results back to the PMSS which includes the drug number dispensed, quantity dispensed, time/date of dispense and User info. See *Remote Server menu* on page 33 for information on setting up bidirectional communication. This allows the PMSS work flow to advance the Rx to the next stage. This information also helps maintain inventory accuracy, particularly when drug substitutions or partial fills are dispensed.

When using this method you will be scanning an order ID barcode which is used by the Eyecon to look up the Rx information sent by the PMSS.

As you begin or end a session, you may be asked to scan in or manually enter your login ID. This is determined by the settings in *Count Login, Validation Login, and Inventory Login* on page 35. Follow the onscreen prompts when asked for an ID.

4.3.1 Rx validation and dispensing



This section covers both Validation mode and PMSS mode operation. Both processes are nearly identical and variations will be noted where necessary.

1. From the START screen press the **Validation** button ...

The *SCAN VIAL LABEL* screen, shown at right, appears.



In the PMSS mode a **PMSS Rx Data Viewer** button appears in the lower right corner. Press this to view the most recent prescriptions that have been received by the Eyecon from the PMSS. This is for reference and troubleshooting only.

2. Scan the appropriate vial label barcode, which is determined by the mode of operation (Validation or PMSS) ...

If there is a problem with the barcode, an appropriate message will be displayed. Follow the onscreen prompts to correct the problem.

The *SCAN STOCK ITEM* screen, shown at right, is normally displayed. However, the settings in *Stock Item Verification on page 26* can bypass this screen or add an extra button on the screen (**Skip Validation**). The PMSS data packet can also override this setting. If **Skip Validation** button is present, press it to bypass validation when double counting a robotic filled vial.



If the *SCAN STOCK ITEM* screen is bypassed, go to step 4. If not go to step 3.



If you are aware that the pill you are about to dispense has been improperly trained, press the **ReTrain Item** before scanning the stock item. Follow the instructions onscreen. See *Train or Retrain a pill image* on page 64.

Similarly, if you know the drug information is incorrect for the stock item you are about to dispense, press **Edit Drug Database** before scanning the stock item. Edit the drug details as needed.

If your stock item does not have a barcode, press **Manual Entry** and type in the NDC number of the item to be dispensed. Follow the instructions onscreen. See *Manual NDC entry* on page 56.

3. Scan the UPC barcode on the stock item to be dispensed.



If multiple stock bottles are being used to complete a transaction, be sure to scan each one before pouring the pills on the counting platter.

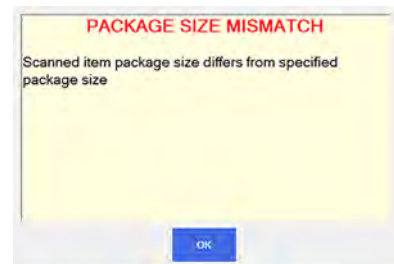
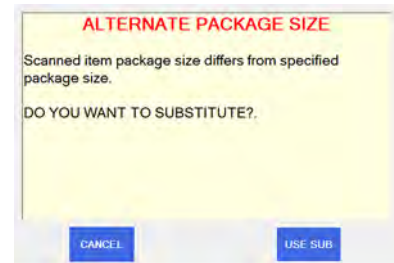


If NDC information is not present in database, **NDC not found!** screen will appear. Refer to *Drug Number Not Found* on page 56.

See *Edit drug database* on page 57 for information on how to edit the drug name, chose an NDC number or enable/disable the current drug photo.

Package Size Mismatch

If the scanned stock bottle is the same drug but does not match the expected stock bottle quantity, a message screen will appear depending on Eyecon configuration. If allowed the top screen at right appears. If not allowed the bottom screen appears. See *Drug Substitution* on page 25 for directions.

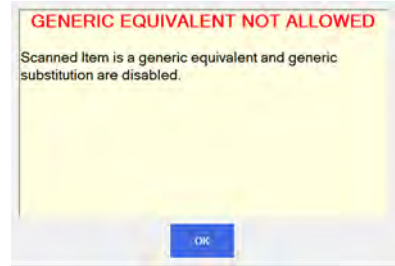
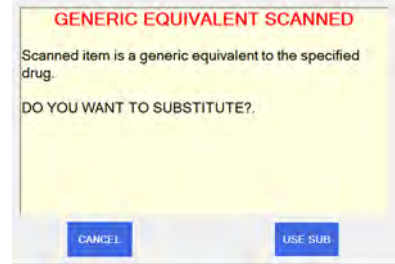


Drug Substitution

This is allowed only if enabled in the General menu. See [Drug Substitution on page 25](#).

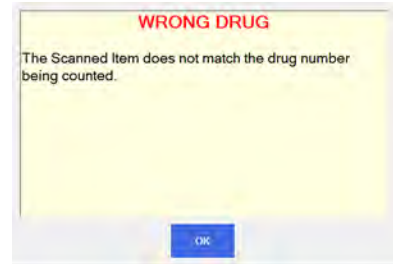
If *Equiv Drug* is selected you will be prompted to approve the substitution if the selected drug is a generic equivalent. See the top screen at right.

If *Equiv Drug* is not selected you will see the warning at right, bottom, telling you that it can't be substituted.



Wrong Drug

If the scanned drug is not the same nor is it a generic equivalent you will see the warning at right.



See [Unit of Use for pill counting on page 59](#) for details.

See [Dispensing large quantities on page 63](#) for more information.

If any details on the right side of the **COUNT ONLY** screen are incorrect, press the **Edit Drug** button. See [Edit drug database on page 57](#).

Counting

4. When you start the counting process the *Target Qty:* window shows the correct amount to be dispensed. The *Quantity* window will show **0** quantity and is yellow whenever the quantity is below the required amount, as shown in the left photo below. Pour pills onto the counting platter. See *Best counting practice* on page 57.

If you exceed the required quantity the *Quantity* window will turn red and show the current count, as shown in the center photo below. Use the spatula and remove pills until the quantity is correct and the window turns green as a visual signal, as shown in the right photo below.



5. When the correct quantity is on the platter, press **Finish ...**

The Eyecon returns to the *SCAN VIAL LABEL* screen.



If drug photo does not exist in the Eyecon database **Not Found or Disabled** will appear in place of the photo.

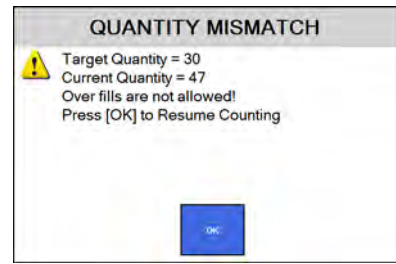
The Rx target quantity can be included with the 11digit NDC data and compiled into one barcode that is scanned. If the quantity is included, it will be displayed in green **Target Qty:** window.



If you are in PMSS mode with bi-directional enabled (see Remote Server menu on page 33), when you press the **Finish** button the Rx filling results are sent back to the pharmacy computer system. If there is a connection problem you will see the message screen at right.



If you press the **Finish** button when the pill quantity does not match the target quantity, a **Quantity Mismatch** screen will be displayed, as shown at right.



Depending on the setting in the General menu you may or may not be able to deviate from the quantity prescribed. Follow the on screen instructions. (See *Allow an Under-Fill on page 26* or *Allow an Over-Fill on page 26*.)

If you press the **Finish** button when the pill quantity is **0**, the screen at right is displayed. Press **YES** to record the zero count or press **NO** to cancel and return to the **Counting** screen.

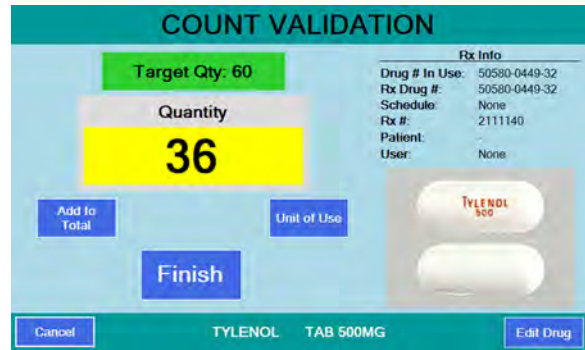


6. Dispense the pills. See *Best filling practice on page 58* for tips.
7. Repeat the procedure for the next Rx.

Partial Fill

If an Rx can only be partially filled, the Eyecon will store the partial fill information and when the remainder is ready to be filled, the Rx is recalled. Follow the steps below to perform a partial count and to complete the full Rx quantity.

1. Pour pills onto the counting platter. In the example at right, the target quantity is 60 but only 36 pills are on the tray.
2. Press the **Finish** button to record the transaction ...



Since the Rx is a partial fill, the **QUANTITY MISMATCH** screen will be displayed.

Press the **YES** button to save the Rx for completing at a later time or press the **NO** button to return to the **COUNT VALIDATION** screen. If you press **YES** the *Transaction Recorded* screen is briefly displayed.



Fill the Remainder of the Rx

- When the Rx can be filled, scan the vial label ...

A warning screen will be displayed.



If a patient did not pick up their partial quantity and it was returned to stock, you can press the **RX QTY** button and complete a normal fill procedure for the complete quantity of the Rx.

- Press the **Remainder** button to finish filling the Rx ...

The screen will ask for the stock item to be scanned. When you do you will see the screen at right with the *Target Qty* showing the number of pills needed to

complete the Rx and a *Quantity* of 0. Add the pills until the target quantity is reached and press the **Finish** button. The transaction will be recorded to the database as a completed fill.



See *Double Count (DEA Controlled Substances)* on [page 65](#) and *Back Count (DEA Controlled Substances)* on [page 66](#) for information on counting controlled substances.

4.4 Physical Inventory mode

The Physical Inventory mode provides a way to maintain accurate inventory levels. The operation changes if you turn on the inventory interface. See *Inventory menu* on page 39. The first section will detail operation without the interface. Using the interface will follow that.

Physical inventory counts are performed on the Eyecon and saved to a database. The database can be exported as a CSV file and then imported into your computer system to update perpetual counts with an accurate physical count.

As you begin or end a session, you may be asked to scan in or manually enter your login ID. This is determined by the settings in *Count Login*, *Validation Login*, and *Inventory Login* on page 35. Follow the onscreen prompts when asked for an ID.

The steps below assume you login or scan-out when requested by the Eyecon. Those steps are skipped for brevity.

4.4.1 Inventory operation without the interface connection

1. From the **START** screen, shown at right, press the **Physical Inventory** button ...

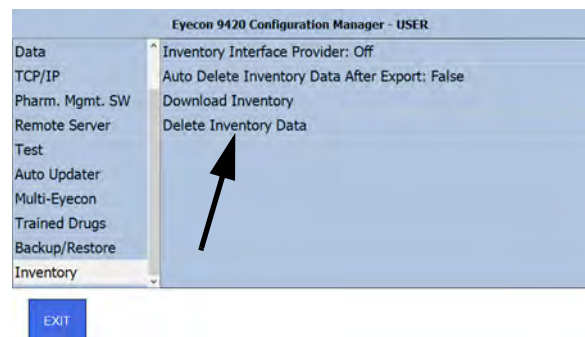


The message at right will be displayed only when existing inventory data is stored in the Eyecon database and the **Physical Inventory Mode** was started.



- 2a. If a new physical inventory is being performed press the **YES** button ...

The *Inventory* menu item in the *Settings* menu, shown at right, will be displayed so that you can press the *Delete Inventory Data* menu item. Follow the onscreen prompts to complete this task and press **Exit** to return to the *SCAN STOCK ITEM* screen of the inventory mode.



OR

- 2b. If an existing inventory is being resumed, press the **NO** button ...

The *SCAN STOCK ITEM* screen appears and you can continue taking inventory.



3. Scan the Stock Item barcode ...

If the item is a pill, the screen at right is an example of the screen that appears.

If the item is a hand count item, the *HAND COUNT INVENTORY* screen appears. Press **Unit of Use** to record the number of

containers. For liquids you can estimate amounts for a partially full bottle and type in 3.75, as an example, for three full bottles and one 3/4 full bottle. See *Unit of Use for pill counting* on page 59 for more information.



If the barcode does not scan see *Manual NDC entry* on page 56.

If drug information is not present in database, **Drug Number Not Found** screen will appear. See *Drug Number Not Found* on page 56.



If multiple stock bottles are being used to complete a transaction, be sure to scan each one to verify all are the same drug.

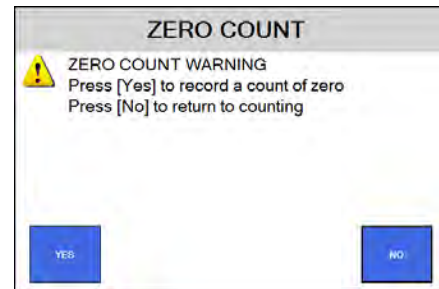
4. If you have full bottles press the **Unit of Use** button and type in the quantity of full bottles and then press **OK** to total the number of pills in those bottles. See *Unit of Use for pill counting* on page 59 for more information.

The screen will return to the *COUNT INVENTORY* screen.

5. Pour the pills from any open bottles onto the counting platter. See *Best counting practice* on page 57. If you have more pills than will easily fit on the pill platter, see *Dispensing large quantities* on page 63.
6. Press the **Finish** button to record the quantity to the Eyecon inventory database.

A message will be displayed briefly along with an audible sound indicating the transaction was recorded.

- 6a. If the **Finish** button was pressed with a count of 0, the screen at right is displayed. Press **Yes** to record the zero count or press **No** to cancel and return to the *Counting* screen.
7. Dispense pills into the stock bottle. See *Best filling practice on page 58*.
8. Return to step 3 to count more inventory.



4.4.2 Inventory operation with the interface connection

Contact the factory for information on this operation.

4.5 Practices common to all modes

The following sections cover procedures which are similar or are useful in Count mode, Validation mode and Inventory mode. The following procedures are covered:

- [Login on page 55](#)
- [Manual NDC entry on page 56](#)
- [Edit drug database on page 57](#)
- [Best counting practice on page 57](#)
- [Best filling practice on page 58](#)
- [Unit of Use for pill counting on page 59](#)
- [Hand counts on page 61](#)
- [Dispensing large quantities on page 63](#)
- [Train or Retrain a pill image on page 64](#)
- [Double Count \(DEA Controlled Substances\) on page 65](#)
- [Back Count \(DEA Controlled Substances\) on page 66](#)

4.5.1 Login

Simply scan your user barcode to login. If a user does not have a user barcode or the barcode is damaged, the number can be entered manually.

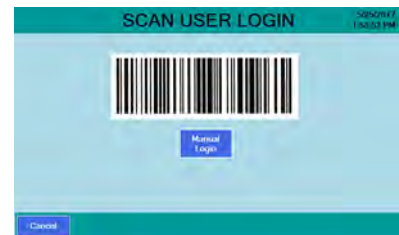
1. From the *SCAN USER LOGIN* screen press the **Manual Login** button.

A keypad entry screen appears.

2. Key in the user login number with the numeric buttons and press **OK** to accept the entry.

If the login ID was accepted the *SCAN STOCK ITEM* screen is displayed.

3. Continue with the current process.



4.5.2 Manual NDC entry

If the stock bottle's NDC barcode is damaged or not present, press the **Manual Entry** button and the keyboard screen, shown at right, is displayed.

1. Key in the stock bottle's NDC number exactly as shown on the stock bottle including the dashes. Press **OK** to accept.
- 2a. If the NDC number was found in the database, the count screen appears.

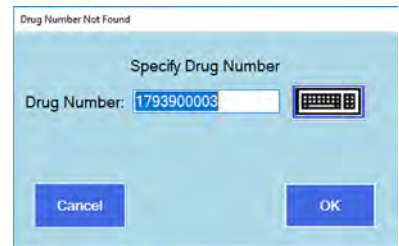


OR

- 2b. If the NDC number was not found in the database, the *Drug Number Not Found* screen appears. See [Drug Number Not Found](#) below for more information.

4.5.3 Drug Number Not Found

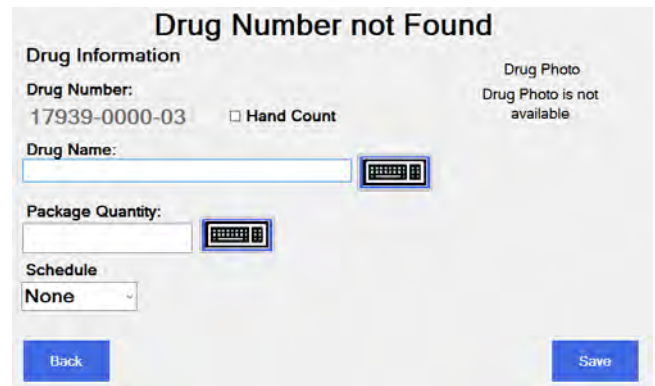
1. If a scanned barcode number is not found in the database, the **Drug Number Not Found** screen, shown at right, is displayed.
2. Tap the keyboard icon and key in the correct number. Be sure it has the correct format and press **OK** to accept. Press **OK** again on the next screen.



If the specified drug number is found, the count process screen is displayed.

If the drug number is not found, the screen at right is displayed.

3. Enter the missing information and press **Save** to add this drug into your Eyecon's database.
4. If the pill image was not found the **Train Pill Image** screen will appear next. See [Train or Retrain a pill image](#) on page 64.



4.5.4 Edit drug database

An **Edit Drug** button appears on the lower right corner of all the COUNT screens. Press this button to access the screen at right. See the arrows pointing out all the things you can set or change.

Press **Save** to save the changes.



4.5.5 Best counting practice

Pour pills onto the counting platter in a scattering motion to minimize stacking. This means moving the bottle around the platter as you pour and being sure to over pour the quantity. It's faster to pour excess pills and remove the excess with the spatula into the funnel than to dribble some pills on, check the quantity and repeat over and over.

When removing the excess don't count each pill as you scrape them off but remove a quantity that may get you close. Let the Eyecon do the counting until you get very close to the final quantity.



When counting large quantities of pills, don't fill the tray more than 70-80% full. See [Dispensing large quantities](#) on page 63 for more information. Also, refer to this video for more information: https://www.youtube.com/watch?v=ysdKd1Q1iME&index=1&list=PLI-hAOdLOP0kPO52rWfNTPbP0rK9RG_ap

If the pills are piled up, if there is a broken pill or other foreign matter the **COUNTING ERROR** message, shown in red at right, appears and a picture of the pill tray shows the items which can't be counted by marking them with red plus (+) marks.

Remove broken pills or foreign objects and/or unstack the piled up pills. The screen will automatically return to the count mode when the problem is resolved.

If you notice that pills lying on their sides are causing a problem, see *Train or Retrain a pill image* on page 64.



4.5.6 Best filling practice



If you empty a bottle and need to use a additional bottle to complete your count, be sure to scan the new bottle before pouring the pills on the counting platter.

Small pills

Use the following procedure whenever you are dispensing small pills from the counting tray into a vial or stock bottle.

1. Raise the counting platter to pour the pills into the funnel.
2. Cup your hand around the mouth of the bottle or vial and place this hand under the funnel and place the tongue of the funnel inside the vial or stock bottle. See photo at right.
3. Push your hand up to raise the funnel gate and empty the pills into the vial or stock bottle.
4. Validate all pills were dispensed into bottle to avoid cross contamination.
5. Ensure funnel gate is returned to the closed position.



Large pills

Large pills can sometimes jam in the funnel if dispensed using the small pill method above. Follow these steps to avoid this situation.

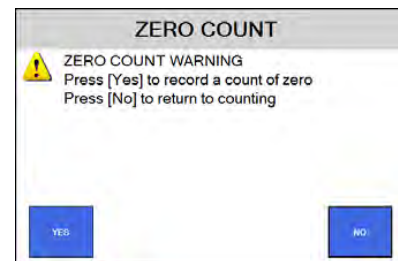
1. Cup your hand around the mouth of the bottle or vial and place this hand under the funnel and place the tongue of the funnel inside the vial or stock bottle.
2. Push your hand up to raise the funnel gate.

3. With your other hand, lift the pill counting platter upward to pour pills through the funnel and into the bottle. See photo at right.
4. Validate all pills were dispensed into bottle to avoid cross contamination.
5. Ensure funnel gate is returned to the closed position.



4.5.7 Common messages or warnings

If you press the **Finish** button with a count of 0, a warning screen will be displayed. Press **YES** to record the zero count or press **NO** to cancel and return to the count mode.



If you press the **Unit of Use** button with pills on the platter, a warning message will be displayed.



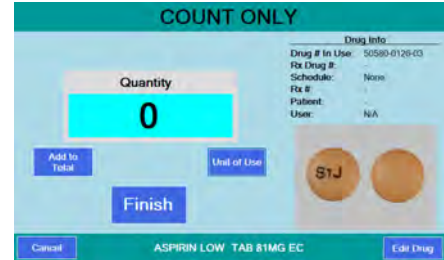
4.5.8 Unit of Use for pill counting

Use this method when:

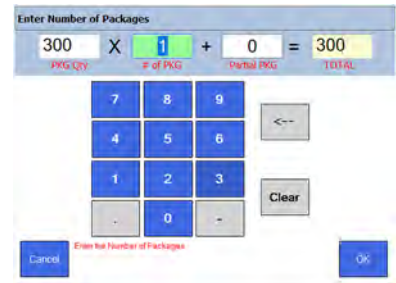
- You want to dispense a combination of a full bottle of pills and loose, Eyecon counted pills. This saves the time of opening a full bottle and counting them on the Eyecon.

Below is an example of how this is used.

1. Scan a barcode and with the pill tray empty, press the **Unit of Use** button on the *COUNT ONLY* screen, shown at right.

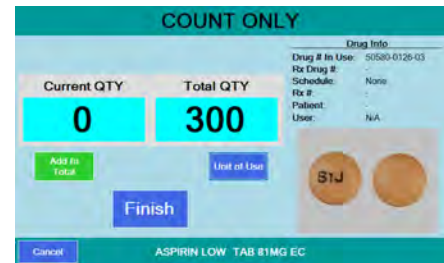


2. A keypad will be displayed. The entry window is prepopulated with a quantity of one package. The database knows this drug has 300 pills in one package and enters that in the first field automatically. To change the number of packages, enter a new quantity and press the **OK** button to accept.



3. The *COUNT ONLY* screen is displayed showing the *Total QTY* calculated by the last screen. You can do any of the following:

- Add to the current quantity.
or
- Scan another bottle and pour additional pills on the tray to achieve the desired quantity.
or
- Press the **Unit of Use** button to include another full bottle or manually enter a quantity.



- 3a. Press the **Finish** button and the total quantity dispensed is recorded. See screen at right.

See *Data menu on page 28* for information regarding recorded data and pill photo examples.



4.5.9 Hand counts

These instructions assume you are in Validation mode, where Eyecon provides the most value for Hand Counting because it ensures the correct item is being dispensed. If the drug is a unit of use (such as syrups, ointments, creams, blister packs, gel-caps or syringes) or was trained as a hand count drug, the *HAND COUNT VALIDATION* screen is displayed, shown at right, when the stock item barcode is scanned.



When dispensing multiple containers it is recommended to scan each one to ensure they are the correct item.

1. Either press **Dispense Rx Amount** button to immediately record that the Rx has been filled completely or press the **Unit of Use** button to record how many full and partial containers are being dispensed.



For blister packs, syrups, ointments, creams or syringes you can key in fractions for # of Pkgs.

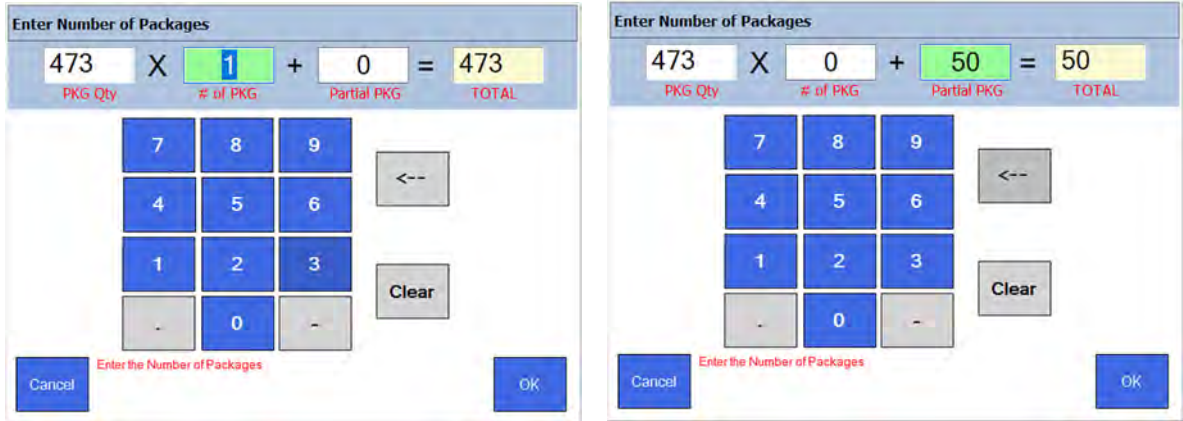
For example, if birth control pills come in blister packs with 28 pills/pack and 5 packs/box and you want to dispense 1 card or 2 cards, you can enter .2 or .4 in the # of Pkgs window. (.2 equals 1 card out of the 5 in the box. .4 equals 2 cards out of the 5 in the box).

TOTAL is always a whole number (It will be rounded up at .5 or down at .49).

Unit of measure can be either ml, grams or each (per pill).

2. If you press the **Unit of Use** button the *PKG Qty* window is prepopulated with the full amount of the package. In this example it is 473 ml. The *# of PKG* window is also prepopulated with either **0** or **1**, depending on if the target quantity is above or below a full package.

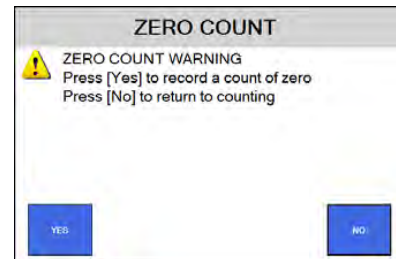
For example, if you want to dispense 50 ml of this fluid, enter 0 for *# of PKG* and 50 in the *Partial PKG* window. See the example screens below. If the value is acceptable, press **OK** or see step 2a below.



- 2a. If a change needs to be made, press the **Clear** button. The entry window will be blank. Use the numeric keys to enter the correct value and press **OK**.
3. Press **OK** and the *Hand Count Only* screen is displayed with the entered value.
4. Press the **Finish** button to save the entry. The *Transaction Recorded* screen briefly appears and then the *SCAN STOCK ITEM* screen is displayed.



- 4a. If the **Finish** button was pressed with a count of 0, a message screen will be displayed. Press **Yes** to record the zero count or press **No** to cancel and return to the *Hand Count Only* screen.



4.5.10 Dispensing large quantities

When dispensing more pills than can be comfortably placed on the platter, you can use the **Add to Total** key to save the current tray count, then remove the pills to a vial, you can then count another tray of pills. This can be repeated as necessary.

1. Scan the barcode and pour the pills on the tray. Don't fill the tray more than 70-80% or it may be difficult to get the pills to lie flat or unstack them.



2. If the pills are stacked on one another the screen may change, highlighting the position of the pills that were not able to be counted.
3. Lightly shake the pill counting platter until the pills are no longer stacked and the **COUNT ONLY** screen returns with the quantity shown.



4. Press the **Add to Total** button and the screen at right appears.



5. Dispense the pills on the tray into a vial using best filling practice and this screen appears. See *Count Only mode* on page 43.



6. Pour more pills onto the counting platter.
7. If the required count (*Total QTY*) is exceeded, remove excess pills from the platter with the spatula into the dispensing funnel. Place stock bottle under funnel gate and lift.
8. Repeat the **Add to Total** process if you want to add even more pills or press **Finish** to complete the operation and the transaction is recorded.



9. Lift the tray and dispense the pills into the vial with the first group that had been counted. See *Validation mode operation* on page 45.

4.5.11 Train or Retrain a pill image

The trained pill image is a shadow image used as a reference for counting.

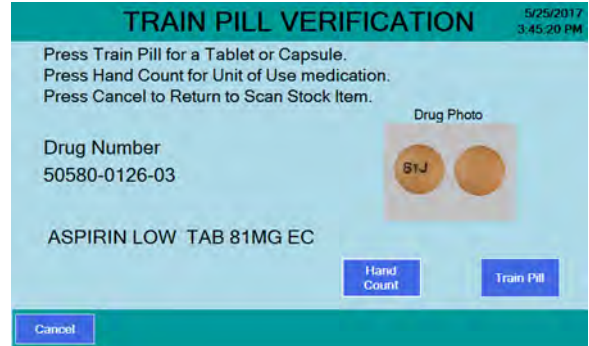
The process below is used to update existing pill images in the event the pill size/shape changes or the count is incorrect or unstable.

If you know that a pill needs to be trained before you start counting, go to step 1.

If you see a count error screen you can press the **ReTrain Item** button and go to step 3.

1. Press the **ReTrain Item** button. The button will be highlighted in green when selected.

2. Scan the stock bottle label or manually enter the NDC number. The screen at right appears.



3. If the drug scanned is a pill or capsule press the **Train Pill** button and proceed to step 4.

If the drug is a unit of use (such as an ointment, cream, gelcap or blister pack), press the **Hand Count** button. This item is designated as a hand count item going forward. See *Hand counts* on page 61 for more information.

4. Place two pills near the center of the platter and not touching each other. One pill should lie flat and the other pill must be on its edge.



If there is only one stable orientation, such as a capsule, only one pill or capsule is required.

5. Press the **Train Pill** button and the screen at right appears.



If the pill images match the shape of the pills on the platter go to the next step.

- Press the **Yes** button. The **Counting** screen will be displayed. Refer to the **Counting** section for more details.

If the pill images are not correct, press the **Cancel** button. Go back to step 4.

The re-trained pill images will be stored to the internal database automatically after the images are accepted.

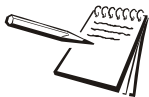
4.5.12 Double Count (DEA Controlled Substances)

If the Rx being dispensed is a controlled substance, a double count may be necessary depending on the setting under the Double Check item in the General menu. See *Double Check menu on page 33*.

- Begin the counting procedure as usual and when you press **Finish**, the transaction is recorded and, if a double count is required, the display at right will appear.



- Remove pills from the counting platter. The *Double Count* screen is displayed.



Note that when you work with a Scheduled drug, the schedule is listed in the upper right corner of the screen. In the example above the schedule is C-II.

- Re-pour the pills on the platter and be sure the *Quantity* matches the *Target Qty*: window. Press the **Finish** button to finalize the double count. The transaction will be recorded.



4.5.13 Back Count (DEA Controlled Substances)

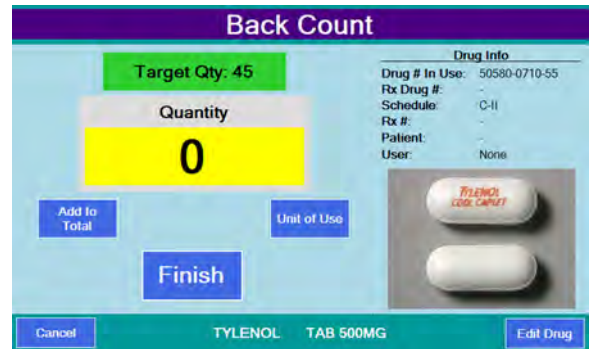
The Back Count feature is used to count the remaining pills in the stock bottle after every controlled substance dispense. Back Counts must be enabled, see *Double Check menu on page 33*.

You are prompted to count the remainder and the Eyecon supplies the expected back-count based on the prior back-count minus the dispensed amount. If the dispense results in opening a new stock bottle, the Eyecon takes that into account by adding in the full bottle quantity. The expected back-count amount is displayed at the top of the count screen, in the same manner as the target quantity for Rx filling.

1. Begin the counting procedure as usual and when you press **Finish**, the transaction is recorded and, if a back count is required, the display at right will appear.



2. Dispense the pills. The **Back Count** screen will be displayed. The expected amount for the Back Count is shown at the top of the screen. If this is the first time that the current NDC is being back-counted, the expected amount is the full bottle amount.



Back Count Quantity Mismatch

If the final Back Count achieved doesn't match the expected Back Count amount, the count window back-ground color will be yellow if it is lower, and red if it is over.

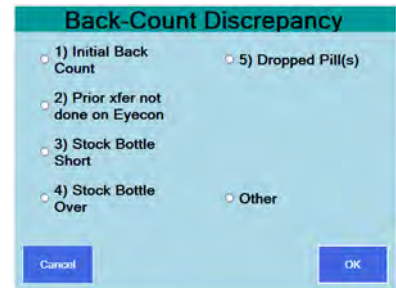
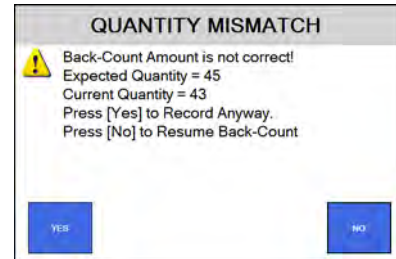
- If **Finish** is pressed and the amount is a mismatch the warning message at right appears.

If all of the pills in the open bottle for the NDC have been counted, press the **YES** or

Press **NO** to return to the **Counting Pills** screen.

- If *Require Adjust Reasons* was selected in the *Double Check* menu [on page 33](#), a reason menu will be displayed. See the example at right.

Select a reason and press the **OK** button. The display will return to **Scan Vial Label**.



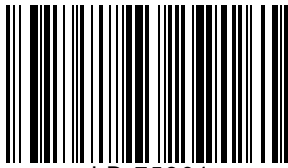
5 User login barcodes

To change users at any count menu it is possible to create barcodes that are recognized by the Eyecon specifically as User IDs. Any barcode that begins with the characters "ID+" followed by numeric digits will be processed as a user login. Therefore, it won't be necessary to return to the login menu in order to change users. You can simply scan a User Login label and the scanned user ID will be established as the new current user.

Any of the example labels can be scanned at the Eyecon Scanner Test. See *Test menu on page 35* to determine which 6 digit code it contains. The User ID's encoded in the barcode labels will still need to be entered into the User Login table as described in Login/Scan out menu item. See *Login / Scan Out menu on page 34*.

If you'd like to implement user barcodes in your pharmacy but don't have the resources to print custom barcode labels, you can print the example barcodes on the next page, apply them to a small badge, and issue to your personnel. However, if you need to maintain a high level of security where ID numbers are only known by an administrator, you will need to create badges with unique login codes.

5.1 User login barcodes



6 Audit reports

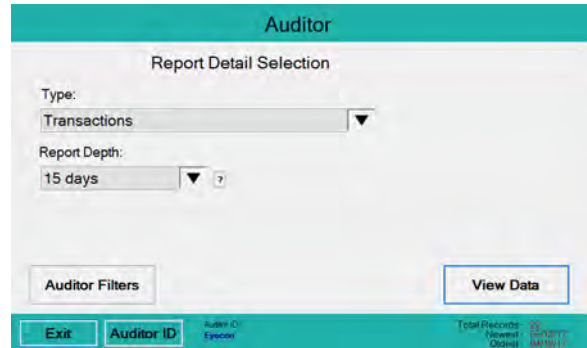
Audit reports can be viewed from the Eyecon display or copied to a computer via USB memory stick.

The report automatically starts with the most recent data.

6.1 Access Eyecon Auditor

1. Press the **Auditor** button on the *START* screen ...

The *Auditor* window appears, shown at right.



6.2 Initial use

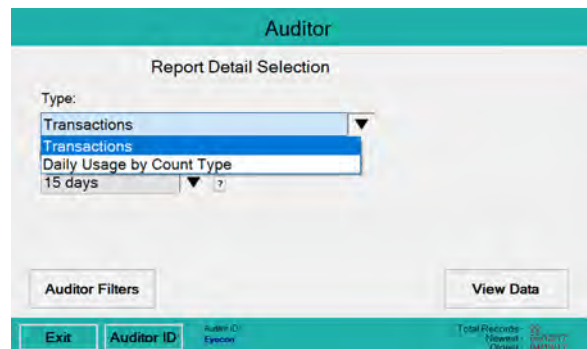
The first time you use the Auditor, it is suggested the Eyecon be named. This will ensure that any reports saved are appropriately named so the source of the data can be identified.

1. Press the **Auditor ID** button at the bottom of the screen and a text entry screen appears.
2. Enter a unique name for this Eyecon, such as Store 123, and press the **OK** button to accept it ...

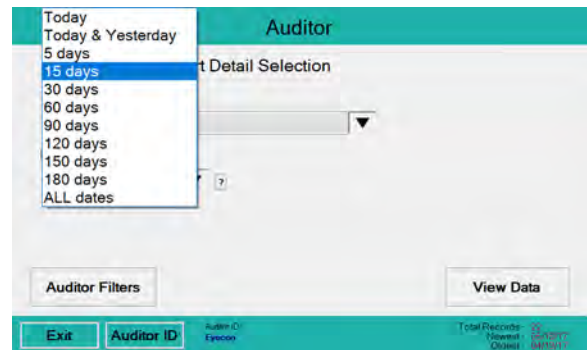
The *Auditor* window appears again.

6.3 Specify and view a report

1. Select the desired report type with the drop down menu (only *Transaction* and *Daily Usage by Count Type* at this time) If an inventory transaction has been performed a third choice appears, *Inventory - Summary*.



- Press the down arrow key to show the drop down list of time periods you can choose from for the depth of the report. See the example at right.



- Press the **Auditor Filters** button to select the filters for the report. The screen at right is displayed.



- Press each choice to make your selection. There may be a list that appears for you to choose from or a keypad to type in name or value.

- Press the **View Data** button to run the report. This could take a while depending on the size of the report ...

Roll	Rx Drug Number	Drug Name	UPC Dispensed	Drug Number Dispensed	Target Qty	Filled Qty	Fill Status	Cou Met
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	24	24	Complete	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	60	36	Partial	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	24	24	Complete	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	60	36	Partial	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	24	24	Complete	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	60	36	Partial	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	60	60	Complete	Eye
211140	50580-0449-32	TYLENOL TAB 500MG	5058044932	50580-0449-32	60	60	Complete	Eye

The report will be displayed according to the filters set. Use the scroll bars on the bottom and side of the screen to view the entire report.

- Press the **Save All** button to save the report to a USB memory stick.

View Tray Photos

- To view a specific tray photo, select a specific record and press the **View Tray Photo** button. An example of the screen is shown at right. If more than one image is available, use the arrows to scroll to the other images.



8. Press the **Save** button to save the displayed photo and the last viewed report to the Eyecon.
9. Press the **zoom** button at the bottom of the screen to zoom the photo.
10. Press the **Back** button to return to the report *Transactions* screen.
11. Press the **Back** button again to return to the *Auditor* screen.
12. Press the **Exit** button when finished to return to the *START* screen.

6.3.1 Accessing the saved photos and reports

1. Insert the USB drive into your computer USB drive slot.
2. Open Windows Explorer.
3. Click on the drive letter of the USB drive in the left window. The drive letter should be highlighted.
4. In the right window is a folder named "EyeconVPC". Double click on this folder to open it.

Inside the folder is a Transactions Report folder with the Eyecon name and serial number. Inside this folder will be a *csv* folder and a *Photos* folder.

5. In the CSV folder will be a report(s) with a time code. Double click the file you want to view and it will open in Excel, if the .csv file type is associated with Excel® on your computer.
6. Click the Photos folder to see a list of photo filenames containing dates. Double click to open in your photo viewer.

7 Accuracy verification procedure

In order to confirm that counts provided by the Eyecon are accurate, it is recommended to follow the procedure below on a monthly basis, or whenever there is any question regarding the accuracy.

This check may be required by some states' Boards of Pharmacy.

1. Clean the Eyecon pill platter, top and bottom, as well as the surface below the tray to remove any pill dust build-up. Tiny specks can affect the calibration so be sure to eliminate all of them.
2. From the Eyecon *START* screen, press the **Settings** button.

3. Select the *General* menu.
4. Select the *Calibrate Platter* menu item ...

The platter will be automatically calibrated by the software and a *Platter Calibration Successful* screen will be displayed.



5. Press **OK** to accept the calibration then press **EXIT** to exit the *General* menu.
6. From the Eyecon *START* screen, press the **Count Only** button.
7. Scan the barcode of a selected bottle of tablets and pour any quantity pills onto the Eyecon counting tray (preferably 30 or more). Ensure that none of the pills are stacked upon each other. Note the quantity displayed on the Eyecon screen.
8. Lift the pill tray, dumping the pills into funnel. Transfer pills from the funnel into a vial, and then dump pills on the tray again.
9. Verify the count is the same as the first count.
10. Manually count the pills by scraping them into the funnel on the front of the Eyecon.
11. Confirm that the manual count matches the Eyecon count.
12. If a discrepancy is found, re-perform the manual count to check the results.



Double check the platter and tray for dust or specks, especially the side walls. If there are still problems calibrating the platter or during the accuracy check, contact Eyecon Technical Support for assistance at (866) 260-6540.

13. Record these results in a log book to create a record of the verification having been performed.
14. The next page may be printed to create pages for a log book.

Table 7.1 Eyecon Accuracy Log

Date	Time	Name	Quantity Verified	Notes

8 Supported bar code symbologies

8.1 Supported symbologies

8.1.1 UPC/EAN

UPC-A
UPC-E
UPC-E1
EAN-8/JAN 8
EAN-13/JAN 13
Bookland EAN
Bookland ISBN Format
Decode UPC/EAN/JAN Supplementals (2 and 5 digits)
User-Programmable Supplementals
Supplemental 1
Supplemental 2
UPC/EAN/JAN Supplemental Redundancy
Decode UPC/EAN/JAN Supplemental AIM ID
Transmit UPC-A Check Digit
Transmit UPC-E Check Digit
Transmit UPC-E1 Check Digit
UPC-A Preamble
UPC-E Preamble
UPC-E1 Preamble
Convert UPC-E to A
Convert UPC-E1 to A
EAN-8/JAN-8 Extend
UCC Coupon Extended Code
Coupon Report
ISSN EAN F1h 69h Disable 9-25

8.1.2 Code 128

Code 128
Set Length(s) for Code 128
GS1-128 (formerly UCC/EAN-128)
ISBT 128
ISBT Concatenation
Check ISBT Table
ISBT Concatenation Redundancy DFh 10 9-30

8.1.3 Code 39

Code 39
Trioptic Code 39
Convert Code 39 to Code 32 (Italian Pharmacy Code)
Code 32 Prefix
Set Length(s) for Code 39
Code 39 Check Digit Verification
Transmit Code 39 Check Digit
Code 39 Full ASCII Conversion
Buffer Code 39

8.1.4 Code 93

Code 93
Set Length(s) for Code 93

8.1.5 Code 11

Code 11
Set Lengths for Code 11
Code 11 Check Digit Verification
Transmit Code 11 Check Digit(s)

8.1.6 Interleaved 2 of 5 (ITF)

Interleaved 2 of 5 (ITF)
Set Lengths for I 2 of 5
I 2 of 5 Check Digit Verification

Transmit I 2 of 5 Check Digit

Convert I 2 of 5 to EAN

8.1.7 Discrete 2 of 5 (DTF)

Discrete 2 of 5

Set Length(s) for D 2 of 5

8.1.8 Codabar (NW - 7)

Codabar

Set Lengths for Codabar

CLSI Editing

NOTIS Editing

Codabar Upper or Lower Case Start/Stop Characters Detection

8.1.9 MSI

MSI

Set Length(s) for MSI

MSI Check Digits

Transmit MSI Check Digit

MSI Check Digit Algorithm

8.1.10 Chinese 2 of 5

Chinese 2 of 5

8.1.11 Matrix 2 of 5

Matrix 2 of 5

Matrix 2 of 5 Lengths

Matrix 2 of 5 Check Digit

Transmit Matrix 2 of 5 Check Digit

8.1.12 Korean 3 of 5

Korean 3 of 5

8.1.13 Inverse 1D

8.1.14 Postal Codes

- US Postnet
- US Planet
- Transmit US Postal Check Digit
- UK Postal
- Transmit UK Postal Check Digit
- Japan Postal
- Australia Post
- Australia Post Format
- Netherlands KIX Code
- USPS 4CB/One Code/Intelligent Mail
- UPU FICS Postal

8.1.15 GS1 DataBar

- GS1 DataBar (GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional)
- GS1 DataBar Limited
- GS1 DataBar Limited Security Level
- GS1 DataBar Expanded (GS1 DataBar Expanded, GS1 DataBar Expanded Stacked)
- Convert GS1 DataBar to UPC/EAN

8.1.16 Composite

- Composite CC-C
- Composite CC-A/B
- Composite TLC-39
- UPC Composite Mode
- Composite Beep Mode
- GS1-128 Emulation Mode for UCC/EAN Composite Codes

8.1.17 2D Symbologies

- PDF417
- MicroPDF417

Code 128 Emulation
Data Matrix
Data Matrix Inverse
Decode Mirror Images (Data Matrix Only)
Maxicode
QR Code
QR Inverse
MicroQR
Aztec
Aztec Inverse
Han Xin
Han Xin Inverse

8.1.18 Symbology-Specific Security Levels

Redundancy Level
Security Level (UPC/EAN and Code 93)
Intercharacter Gap Size

8.1.19 Macro PDF

Macro PDF Transmit/Decode Mode Symbols
Transmit Macro PDF Control Header
Escape Characters
Flush Macro PDF Buffer
Abort Macro PDF Entry

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