

Eyecon 9430

Pill Counting, Inventory and Validation System



Quick Reference Guide

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Quick Reference Guide

This Quick Reference Guide is not intended to cover all aspects of the Eyecon 9430's capabilities. Refer to the Instruction Manual at www.eyeconvpc.com for more details on other modes and specific operations.

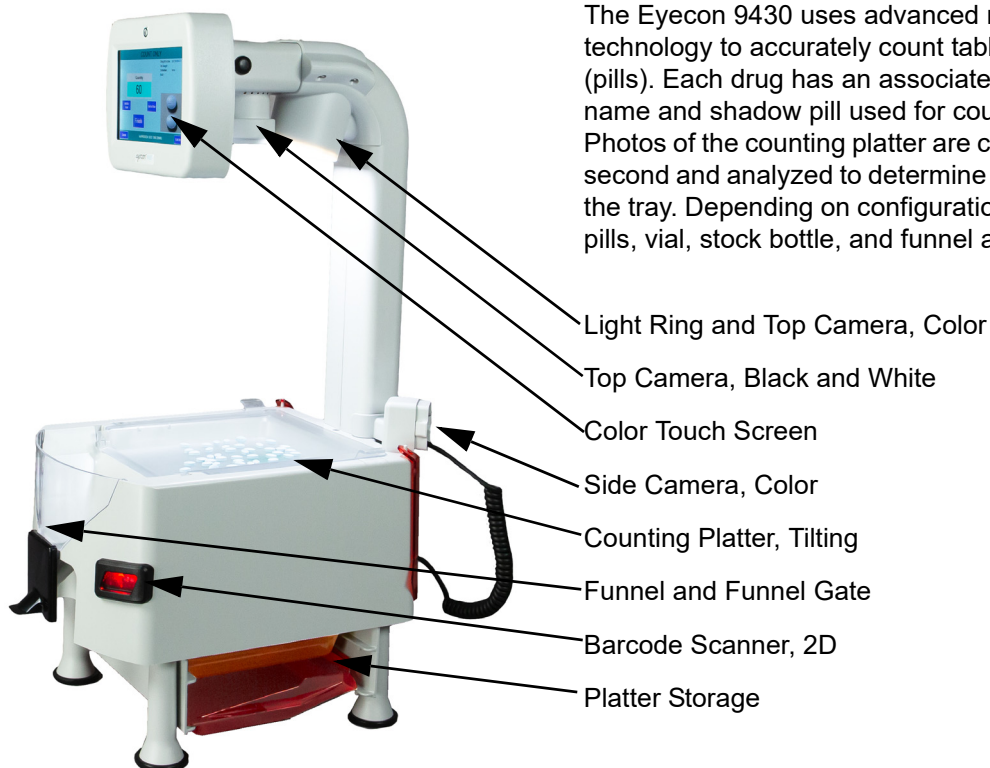
Eyecon Package Contents

- (1) Eyecon 9430 Visual Pill Counter
- (2) Pill Spatulas
- (1) Quick Reference Guide
- (1) Red Penicillin Contamination Platter
- (1) Yellow Sulfa Contamination Platter
- (1) Blue Hazardous Contamination Platter
- (1) AC power cord for USA and Canada operation



CAUTION: *The Eyecon contains components that can be damaged by rough handling. Unpack all items carefully.*

General Description



The Eyecon 9430 uses advanced machine vision technology to accurately count tablets and capsules (pills). Each drug has an associated Drug Number, drug name and shadow pill used for counting. Photos of the counting platter are captured five times per second and analyzed to determine the number of pills on the tray. Depending on configuration, color photos of the pills, vial, stock bottle, and funnel are captured.

Light Ring and Top Camera, Color

Top Camera, Black and White

Color Touch Screen

Side Camera, Color

Counting Platter, Tilting

Funnel and Funnel Gate

Barcode Scanner, 2D

Platter Storage

Installation

When choosing where to install the Eyecon 9430, consider the following.

- The Eyecon 9430 is a precision piece of equipment that can be damaged by rough handling.
- The label at the base of the neck (shown below) must be visible at all times so that the top camera can perform necessary auto focus routines during power up and when not performing a transaction.



Initial Power Up

1. Insert the power cable into the receptacle located on the back of the Eyecon.
2. The Eyecon 9430 must be installed near an easily accessible socket outlet. Plug the power cord into the outlet.
3. When the Eyecon 9430 is first connected to AC power, it will automatically turn on. The display area will illuminate within a few seconds, followed by the illumination of the Light Ring and a progress bar on screen.
4. The terms of the Eyecon *End User License Agreement* (EULA) must be accepted before the unit can be used for the first time.
5. When the **START** screen is displayed, the Eyecon is ready for use.

Shutting Down



WARNING! *It is essential to Shut Down or Restart the Eyecon by using the Shutdown button on the touchscreen to prevent Windows generated issues. Avoid turning off the Eyecon by removing power or unplugging from the outlet before the screen goes from gray to black. The black screen will appear approximately 5 seconds after the gray screen and indicates that it is safe to unplug the Eyecon, if necessary.*

1. To shut down, tap the **Shutdown** key on the touchscreen.
Restart, Shutdown, or Cancel appear on screen.
2. Tap **Shutdown**.

The **START** screen briefly re-appears as the Eyecon 9430 completes the power down routine. Once complete, the screen turns dark gray and then to black and the light ring turns off.



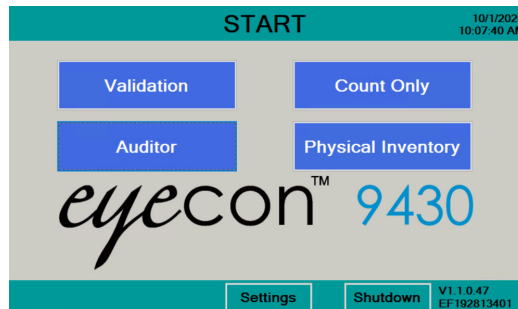
Choosing **Restart** will power the Eyecon off and immediately re-boot. Choosing **Cancel** will return you to the previous screen.

General Operation

This section provides very basic instructions for operating the Eyecon 9430. Refer to the Instruction Manual at www.eyeconvpc.com for more details on other modes and specific operations.

Turning the Eyecon On

To turn the Eyecon on, simply press the button on the rear of the machine. There will be a short delay (approximately 5 seconds) before the Eyecon begins the power up routine described in *Initial Power Up*. Once the power routine is complete, the **START** screen is displayed.



Configuration

The Eyecon can be customized to meet the needs of your pharmacy through a variety of parameters. The most commonly adjusted parameters are listed below. These parameters are part of the Settings menu which is covered in detail in the User Manual, available at www.eyeconvpc.com.

General

- Drug Substitution: Specify whether you require an exact match of the prescribed drug or if substitutions are allowed.
- Allow an Under-Fill: Specify whether partial fills are allowed.

Barcode

- Barcode Type: Specify whether a PMS interface or a barcode containing Rx, NDC, & Qty will be used to ensure the prescription is dispensed correctly.
 - Adjust the subsequent parameters if a barcode is being used.
- 2D Barcode Expiration Rules:
 - Specify the number of days prior to the expiration date that will cause warnings or prevent use of that stock item.

Data

- Database Sharing
 - Enable SQL Sharing if multiple Eyecons are deployed in one facility.

Color Camera

- Select the types of color photos that should be saved for each transaction.
- Specify if funnel detection and barcode detection should be enabled.

TCP/IP

- Set up your Ethernet connection to interface your Eyecon with your PMS and/or to support direct updating of your Eyecon.

Pharm Mgmt SW

- Configure the Eyecon to receive prescription details from your pharmacy system.

Double Check

- Configure the Eyecon to prompt users to double count and/or back count certain controlled substances.

Login / Scan Out

- Configure Eyecon to record the user that filled each prescription and which user made changes to Eyecon configurations.

Inventory

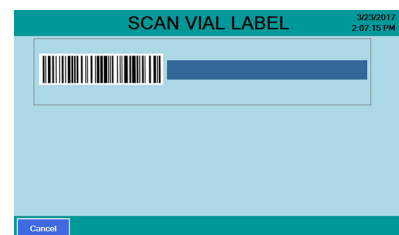
- Configure the Eyecon to send physical inventory counts to your pharmacy system.

Rx Validation

RX Validation mode ensures the proper medication is dispensed by validating that the drug number included in the barcode on the patient vial label or Rx pamphlet matches the drug number associated with the barcode on the stock item.

1. From the **START** screen, tap **Validation**.
2. If Pre-Login is enabled, scan or enter User ID.

The **SCAN VIAL LABEL** screen will be displayed, shown at right.



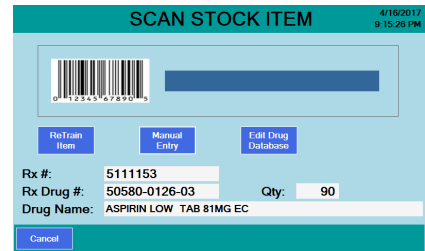
Pressing **Cancel** moves back one screen.

Scan Rx vial/prescription barcode

1. Hold the barcode on the Rx label or paperwork about 2 to 5 inches from the scanner beam so that the red dot is centered on the barcode.

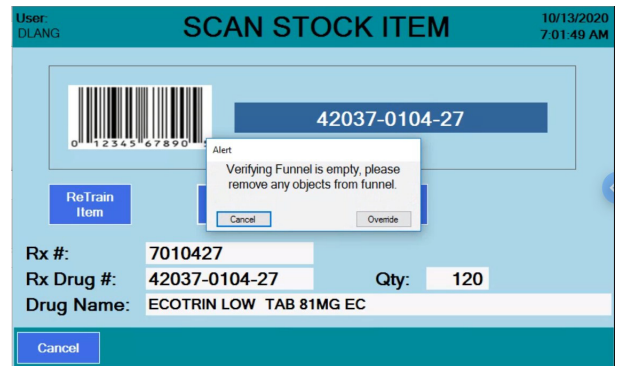
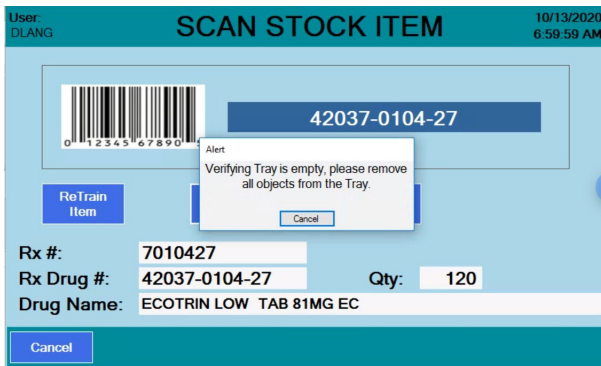
Once the scan is successful, there will be an audible beep and the **SCAN STOCK ITEM** screen, shown at right, will be displayed.

2. Proceed to [Counting and dispensing on page 8](#).



Tray and Funnel Detection

Depending on configuration, the Eyecon 9430 may check that the tray and funnel are empty before advancing to the **Count Menu**. Similar checks can also be performed after the **Add to Total** function, before the user is allowed to press **FINISH**, and after recording the transaction.



Physical Inventory

The Physical Inventory mode provides a way to maintain accurate inventory levels.

1. From the **START** screen, tap **Physical Inventory**.
2. To count inventory, follow the instructions starting at [Counting and dispensing](#).

Count full stock bottle(s)

1. Press the **Unit of Use** button on the top right of the Counting screen.

A numeric keyboard will be displayed.

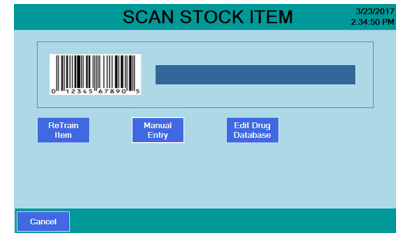
2. Key in the number of full bottles to be counted and tap **OK**.
3. Follow the guidelines in [Counting and dispensing](#) to count the loose pills in the open bottle.

Count

1. From the **START** screen, tap **Count Only**.

The **SCAN STOCK ITEM** screen, shown at right will be displayed.

2. Proceed to *Counting and dispensing*.



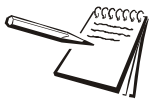
Counting and dispensing

1. Hold the barcode on the stock item about 2 to 5 inches from the scanner beam. The red dot should be centered on the barcode.



Use the 2D GTIN barcode printed on most stock items, whenever available.

2. Once the barcode is recognized, the Eyecon will beep and the next menu will appear.
3. Dispense the desired quantity on the counting platter, keeping the following in mind:
 - It is quicker to over-pour slightly in one motion instead of slowly adding pills on multiple times to achieve the target amount.
 - Never pour more than can easily fit flat, unstacked, on the tray.
 - If more pills are required than can fit, press the **Add to Total** button to save the current amount and then follow the instructions to complete the count.
4. Lift the tray slightly and tap it down against the bumpers to knock pills off of each other and form a single layer. For flat pills, you may need to use the spatula to assist with de-stacking.



Pills must be distributed in a single layer on the counting platter (not stacked). A counting error message will occur if individual pills cannot be discriminated.

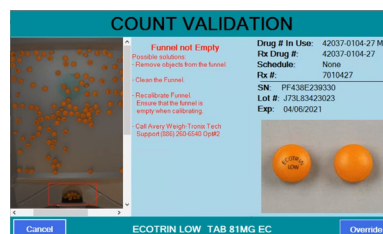
- In **Validation** mode, the required quantity will appear above the current quantity and the quantity window will change color depending on the target quantity status.

Yellow = under target quantity
 red = over target quantity
 green = target quantity.

- Once the required count has been achieved by scraping any excess pills into the funnel, return any pills in the funnel to the stock bottle.



The **Finish** button (or User Scan Out Required prompt) will be grayed out until the Eyecon confirms that the funnel is empty. Tapping the grayed out button (or scanning the user barcode) without first emptying the funnel, will show the contents of the funnel as shown in the image at right.



Once the funnel is empty, the funnel preview image will close and the count will be displayed. The **Finish** button (or User Scan Out Required prompt) will be green

- After ensuring that all excess pills have been removed from the funnel, place one finger on top of the funnel gate to ensure it has closed completely, then lift the counting platter to near vertical so that pills flow into funnel.
- Place the vial under the tongue of the funnel gate to lift it up and allow the pills to flow into the vial. See Dispensing Techniques on page 6.
- Continue filling prescriptions by scanning the NDC barcode on a stock bottle anytime in either the Scan Stock Bottle or Counting Pills screen if you need to use an additional bottle to achieve the desired count.

NOTE: Pressing **Cancel** in the lower left corner of display moves back one screen.

Tips to pour pills on the counting platter efficiently

- When pouring pills onto the counting platter, use a scattering motion as you pour so that the pills are evenly distributed in a single layer. Visually estimate your target quantity while pouring.
- It is faster and easier to slightly over pour from the stock bottle instead of trying to reach your target by pouring a few pills at a time.
- If you do over pour from the stock bottle, use the spatula to remove the excess into the funnel. After achieving the desired quantity, return any excess to the stock bottle by lifting the funnel gate with the stock bottle positioned under the funnel opening.
- Do not manually count off the excess pills. For example, if your target is 60 and you've poured 87, estimate a scrape off of 20 to 25 pills. If you're still not within 7 pills, scrape off another group. When you get within 7 pills or less, you can easily scrape off the number required to reach your desired amount.

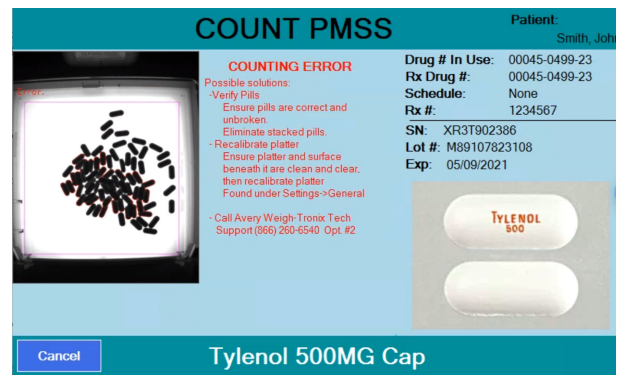
Example of correct pill distribution

Pour pills onto counting platter using the entire platter surface. Make sure not to stack the pills on top of each other.



Example of incorrect distribution (pill stacking)

If pills are stacked (as shown in the image below and to the left) or foreign substances such as an incorrect pill or a desiccant pack (not shown) is on the counting platter, the message on the right appears.

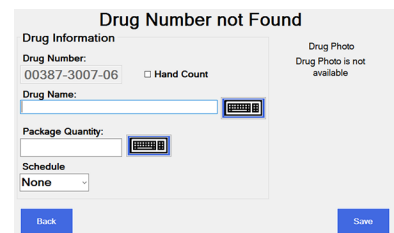
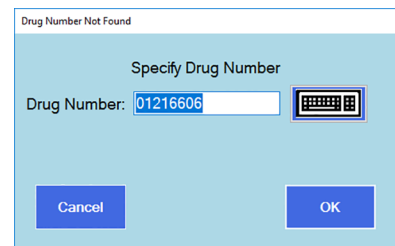


Drug number not found in the database

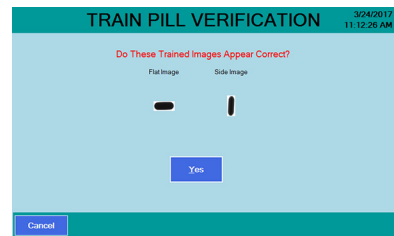
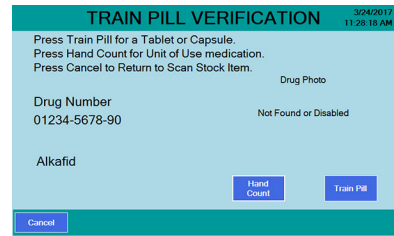
If a drug barcode is scanned and the number is not found in the database, the screen at right appears. At this screen:

1. Use the keypad to enter the correct drug number including dashes and press **OK**.
2. If the entered drug number is found, the Eyecon advances to the next step. If not, enter the Drug Name, Package Quantity and Schedule.

Press **Save** to save the information.



3. The **TRAIN PILL VERIFICATION** screen may appear. If the item is a gel cap or a unit-of-use type (syrup, syringe, ointment, etc...), select **Hand Count**, which will take you to a *Hand Count* screen. Otherwise, press **Train Pill** and go to step 4.
4. When the screen shown at right appears, place 2 pills near the center of the tray but not touching each other, one pill on its side the other resting flat. If a pill will not stand on its side, lay both pills flat. Press **Train Pill**.
5. If the shadow images displayed represent the pills on the platter, press **Yes**. The pill is now trained and Eyecon has stored the drug name and shadow pill image in the database.
6. Proceed with standard Counting and Dispensing steps.

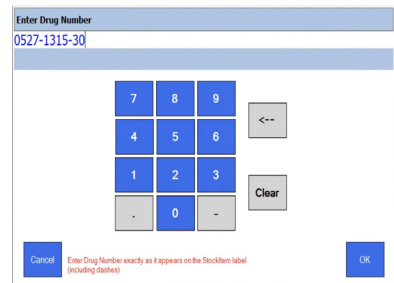


Drug number Found but no shadow pill image

If a drug's barcode is scanned and the drug name and pill photo are recalled but the shadow pill image is not trained, the **Train Pill Verification** screen will appear. Go to step 3 in [Drug number not found in the database on page 10](#).

Drug number barcode doesn't exist on stock bottle or won't scan

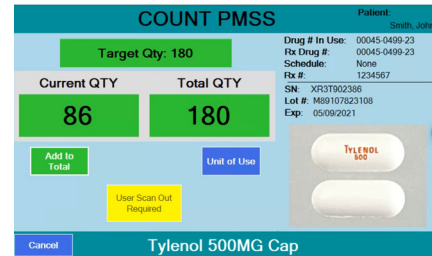
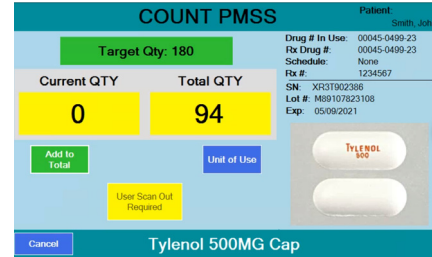
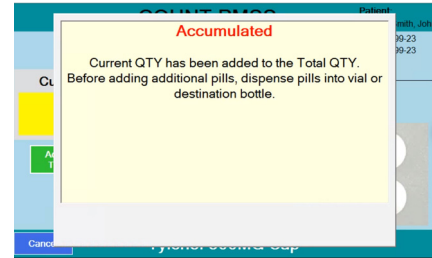
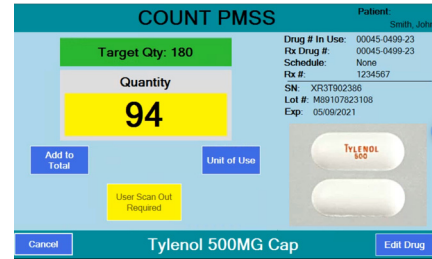
1. At the Scan Stock Item screen, press **Manual Entry**.
The keyboard screen will be displayed.
2. Enter the drug number in the format printed on the stock bottle taking care to assure digits and any hyphens are properly inserted.
3. Press **OK** and continue.



Dispensing large quantities or inventory management

When dispensing more pills than the counting platter will hold without pills stacking, an accumulate function is available.

1. With pills dispensed on the platter, the actual live quantity will be displayed as **QTY**, the Total QTY shows the sum of any previously saved amounts plus the Current QTY.
2. Verify no pills fell into the funnel; if so, return those to the stock bottle.
3. Tap **Add To Total** to temporarily save the current poured quantity as part of the **Total QTY**.
4. Tilt counting platter to pour pills into funnel and then transfer them to the vial or a temporary container if counting inventory.
5. Pour additional pills and continue accumulating to desired quantity.



Dispensing small pills - technique

1. To dispense small pills, lift/tilt the Counting Platter to fill the funnel area with pills.
2. Grip the vial as illustrated, with half of your index finger above the vial and the rest of your hand wrapped around the mouth of the vial.
3. Use your hand wrapped around the vial to raise the funnel gate and fill the vial. Never use your other hand to raise the funnel gate in order to avoid spilling pills!



Dispensing Large Pills - Technique

Large pills can bridge / bind in the funnel area. To prevent bridging, follow this technique.

1. Grip the bottle as illustrated at right and raise the funnel gate completely open before lifting / tilting the Counting Platter.
2. With the bottle in position under the funnel gate, lift / tilt the Counting Platter slowly to allow pills to flow through the funnel into the bottle without bridging.
3. If the pills do bridge in the funnel, insert the spatula into the funnel to loosen the bridged pills.

**Cleaning the Machine**

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

It is recommended the Eyecon unit be cleaned whenever pill dust builds up. Powder and pill dust tend to accumulate on surfaces such as the rapid fill tray and funnel gate.

To clean most surfaces of the Eyecon, use isopropyl alcohol in a spray bottle to wet the surfaces and then wipe with a soft cloth or paper towel.

Cleaning the Funnel Gate

The funnel gate can be removed and cleaned so that it slides smoothly.

1. Raise the funnel gate to the maximum opening.
2. Pull outward and upward simultaneously. The funnel gate will flex slightly to disengage the tiny bump that otherwise retains it.
3. Clean the funnel opening, the back face, the slots that guide the travel path, and the housing edges that the funnel gate rides upon

Shutting down



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Restart, Shutdown, or Cancel appear on screen.

2. Tap **Shutdown**.

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Choosing **Restart** will power the Eyecon off and immediately re-boot. Choosing **Cancel** will return you to the previous screen.

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