

# Eyecon 9420 & 9430

Pill Counting, Inventory, and Validation System



**Instruction Manual** 

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# **Table of Contents**

		pag
Table of Co	ontents	3
0111	Norman Lindon and London Lindon	0
Chapter 1	General information and warnings	
	About this manual	
	Text conventions	
	Special messages	
	Installation	
	Unpacking	
	Intended use	
	Sharp objects	
	Training	
	Warranty policy	
	Specifications	
	FCC statement	
	UL	11
Chapter 2 I	ntroduction	12
p.to	Video training	
	General description	
	Product identification	
	Setup	
	Sulfa and penicillin platter	
	Preparing the Eyecon for use	
	Turn on the Eyecon	
	Routine maintenance	
	Cleaning the machine	
	Funnel and slide gate	
	Rapid fill counting tray	
	Licensing agreement  Medi-Span copyright and disclaimer information	
	, , , , ,	
	Software updates	
	Update warnings	
	Install software updates	
	Turn off the Eyecon (shutdown)	
	Restart	
	Shutdown	
	About Eyecon screen	
	Back up the Eyecon data	
	Helpful hint	
	Navigating the touch screen	
	Definitions	
	Detecting incorrect, broken or other objects	25
Chapter 3	Settings menu	26
•	Setting time and date	
	General menu	
	About Eyecon 9420	
	Speaker Volume	
	Auto Close Transaction Recorded Message	
	Drug Substitution	
	Stock Item Verification	
	Allow an Under-Fill	

· · · · · · · · · · · · · · · · · · ·	
Compress Tray Photos	43
Database Remote Access	43
Database Sharing	43
Auto External Tray Photo Backup	44
Enter Tray Photo Backup Path	44
Fray Photo Backup Path Username	44
Fray Photo Backup Path Password	45
Require Bidirectional Acknowledgment:	
toquilo Bian obtoriai / totaromoaginoria illililililililililililililililililil	53
ble Check menu	
·	54
ole Check menu	54 54
De Check menu	54 54 54
Die Check menu Require Double Counts: Double Count Schedule Code: Require Back Counts:	54 54 54 54
Die Check menu Require Double Counts: Double Count Schedule Code: Require Back Counts: Require Adjust Reasons:	54 54 54 54 55
Die Check menu Require Double Counts: Double Count Schedule Code: Require Back Counts: Require Adjust Reasons: Back Count Schedule Code:	54 54 54 55 55
Die Check menu Require Double Counts: Double Count Schedule Code: Require Back Counts: Require Adjust Reasons: Back Count Schedule Code: mport Back Count Reason:	54 54 54 55 55
Die Check menu Require Double Counts: Double Count Schedule Code: Require Back Counts: Require Adjust Reasons: Back Count Schedule Code:	54 54 54 55 55 55
	Database Sharing Auto External Tray Photo Backup Inter Tray Photo Backup Path Iray Photo Backup Path Username Iray Photo Backup Path Domain Iray Photo Retriever Dot Iray Iray Iray Iray Iray Iray Iray Iray

Setting Login	
Use Imprivata Login	57
Edit Users	58
User Access Right Levels	59
Count Login, Validation Login, and Inventory Login	60
User Lookup	
Auto-Logout	
Test menu	
Scanner test	
Camera test	
Touchscreen test	
Speaker test	62
Auto Updater menu	62
Validate Update Server Access	63
Update Now	
Manual Update from USB	
Automatic Updates:	
Auto Update Time:	
External Path:	
Allow Update Server Communication:	
Medispan Expiration Warning Level:	
Multi-Eyecon menu	
Trained Drugs menu	
Backup / Restore menu	
Backup Location:	68
Backup Interval:	69
Backup All:	69
Restore All:	69
Backup Database:	69
Restore Database:	69
Backup Configuration:	70
Restore Configuration:	70
View Audit Trail:	70
Backup Audit Trail:	70
Backup Debug:	70
Delete Debug Records:	70
Export Drug Data Override Data:	70
Import Drug Data Override Data:	70
Export PMSS Rx Data:	71
Import PMSS Rx Data:	71
Export Troubleshooting Files:	71
Clear Vision Logging File:	71
Inventory menu	71
Inventory Interface Provider:	72
Inventory Server IP Address:	73
Inventory Server Port Number:	73
Inventory Server Connect Timeout:	73
Inventory Server Response Timeout:	
Display Quantity on Hand (QOH):	73
Store Number:	
Auto Delete Inventory Data After Export:	
Export Inventory	
Delete Inventory Data	
Import Inventory Reason Codes	
Export Inventory Reason Codes	
McKesson IVI Specific Details	
Set/Import Server URL:	77

Test McKesson IVI Communication:
START screen         7           Count Only mode         8           Counting         8           Validation mode operation         8           R Validation and dispensing         8           R Physical Inventory mode         9           Inventory operation without the interface connection         9           Inventory operation with the interface connection         9           Inventory operation with the interface connection         9           Practices common to all modes         9           Pre-Login         9           Manual NDC entry         9           Drug Number Not Found         9           Edit drug database         9           Best counting practice         9           Best filling practice         9           Best filling practice         9           Best filling practice         9           Common messages or warnings         10           Unit of Use for pill counting         10           Hand counts         10           Dispensing large quantities         10           Train or Retrain a pill image         10           Double Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         11 </th
START screen         7           Count Only mode         8           Counting         8           Validation mode operation         8           R Validation and dispensing         8           R Physical Inventory mode         9           Inventory operation without the interface connection         9           Inventory operation with the interface connection         9           Inventory operation with the interface connection         9           Practices common to all modes         9           Pre-Login         9           Manual NDC entry         9           Drug Number Not Found         9           Edit drug database         9           Best counting practice         9           Best filling practice         9           Best filling practice         9           Best filling practice         9           Common messages or warnings         10           Unit of Use for pill counting         10           Hand counts         10           Dispensing large quantities         10           Train or Retrain a pill image         10           Double Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         11 </th
Count Only mode
Counting
Validation mode operation         8           Rx validation and dispensing         8           Physical Inventory mode         9           Inventory operation without the interface connection         9           Inventory operation with the interface connection         9           Practices common to all modes         9           Pre-Login         9           Manual NDC entry         9           Drug Number Not Found         9           Edit drug database         9           Best counting practice         9           Best filling practice         9           Best filling practice         9           Common messages or warnings         10           Unit of Use for pill counting         10           Hand counts         10           Dispensing large quantities         10           Train or Retrain a pill image         10           Double Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         10           Chapter 5 User login barcodes         11           User login barcodes         11           Initial use         11           Access Eyecon Auditor         11           Initial use         11 <t< td=""></t<>
Rx validation and dispensing
Physical Inventory mode
Inventory operation without the interface connection   9   Inventory operation with the interface connection   9   Practices common to all modes   9   Pre-Login   9   Manual NDC entry   9   Manual NDC entry   9   Edit drug database   10   Edit drug database   11   Edit drug database   12   Edit
Inventory operation with the interface connection   9
Practices common to all modes         9           Pre-Login         9           Manual NDC entry         9           Drug Number Not Found         9           Edit drug database         9           Best counting practice         9           Best filling practice         9           Common messages or warnings         10           Unit of Use for pill counting         10           Unit of Use for pill counting         10           Hand counts         10           Dispensing large quantities         10           Train or Retrain a pill image         10           Double Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         10           Chapter 5 User login barcodes         11           User login barcodes         11           Access Eyecon Auditor         11           Initial use         11           Specify and view a report         11           Transaction Type:         11           Report Depth:         11           Accessing the saved photos and reports         11           View Data:         11           View Tray Photos:         11           Accessing the saved photos and reports<
Pre-Login         9           Manual NDC entry         9           Drug Number Not Found         9           Edit drug database         9           Best counting practice         9           Best filling practice         9           Common messages or warnings         10           Unit of Use for pill counting         10           Hand counts         10           Dispensing large quantities         10           Train or Retrain a pill image         10           Double Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         10           Back Count (DEA Controlled Substances)         10           Chapter 5 User login barcodes         11           User login barcodes         11           User login barcodes         11           Loser login barcodes         11           Loser login barcodes         11           Chapter 5 User login barcodes         11           Chapter 6 Audit reports         11           Access Eyecon Auditor         11           Initial use         11           Specify and view a report         11           Transaction Type:         11           Report Depth:
Manual NDC entry       9         Drug Number Not Found       9         Edit drug database       9         Best counting practice       9         Best filling practice       9         Best filling practice       9         Common messages or warnings       10         Unit of Use for pill counting       10         Hand counts       10         Dispensing large quantities       10         Train or Retrain a pill image       10         Double Count (DEA Controlled Substances)       10         Back Count (DEA Controlled Substances)       10         Chapter 5 User login barcodes       11         User login barcodes       11         User login barcodes       11         Access Eyecon Auditor       11         Initial use       11         Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11
Drug Number Not Found
Edit drug database   9   Best counting practice   9   Best filling practice   9   Sex filling practice   9   Common messages or warnings   10   Unit of Use for pill counting   10   Unit of Use for pill counting   10   Hand counts   10   Dispensing large quantities   10   Train or Retrain a pill image   10   Double Count (DEA Controlled Substances)   10   Back Count (DEA Controlled Substances)   10   Substances   11   Specify and view a report   11   Transaction Type:   11   Report Depth:   11   Auditor Filters:   11   Auditor Filters:   11   View Data:   11   View Tray Photos:   11   Remote Auditor   11   Remote Auditor   11   Configuring Remote Auditor   11   Configuring Remote Auditor   11   Connect to specific Eyecon   11   Chapter 7 Accuracy verification procedure   12   Chapter 8 Supported bar code symbologies   12   Chapter 8 Supported bar code symbologies   12   Code 128   12   Code 39   12   Code 39   12   Code 39   12   Code 39   12   Code 20   Code 20   12   Code 20   20   Code 20   Code 20   12   Code 20   Cod
Best counting practice   9   Best filling practice   9   Gormon messages or warnings   10   Unit of Use for pill counting   10   Hand counts   10   Dispensing large quantities   10   Dispensing large quantities   10   Double Count (DEA Controlled Substances)   10   Back Count (DEA Controlled Substances)   10   Back Count (DEA Controlled Substances)   10   Chapter 5 User login barcodes   11   User login barcodes   11   Access Eyecon Auditor   11   Initial use   11   Specify and view a report   11   Transaction Type:   11   Report Depth:   11   Auditor Filters:   11   Auditor Filters:   11   View Data:   11   View Data:   11   View Tray Photos:   11   Remote Auditor   11   Configuring Remote Auditor   11   Configuring Remote Auditor   11   Connect to specific Eyecon   11   Chapter 7 Accuracy verification procedure   12   Chapter 8 Supported bar code symbologies   12   Chapter 8 Supported bar code symbologies   12   Code 128   12   Code 39   12   Code 20   C
Best filling practice
Common messages or warnings
Unit of Use for pill counting
Hand counts
Dispensing large quantities
Train or Retrain a pill image       10         Double Count (DEA Controlled Substances)       10         Back Count (DEA Controlled Substances)       10         Chapter 5 User login barcodes       11         User login barcodes       11         Chapter 6 Audit reports       11         Access Eyecon Auditor       11         Initial use       11         Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Double Count (DEA Controlled Substances)   10
Back Count (DEA Controlled Substances)   10
Chapter 5 User login barcodes       11         User login barcodes       11         Chapter 6 Audit reports       11         Access Eyecon Auditor       11         Initial use       11         Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
User login barcodes
Chapter 6 Audit reports       11         Access Eyecon Auditor       11         Initial use       11         Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Access Eyecon Auditor
Access Eyecon Auditor
Initial use       11         Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Specify and view a report       11         Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Transaction Type:       11         Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Report Depth:       11         Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Auditor Filters:       11         View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
View Data:       11         View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
View Tray Photos:       11         Accessing the saved photos and reports       11         Remote Auditor       11         Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Accessing the saved photos and reports
Remote Auditor
Configuring Remote Auditor       11         Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Connect to specific Eyecon       11         Chapter 7 Accuracy verification procedure       11         Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Chapter 7 Accuracy verification procedure 11  Chapter 8 Supported bar code symbologies 12  Supported symbologies 12  UPC/EAN 12  Code 128 12  Code 39 12
Chapter 8 Supported bar code symbologies       12         Supported symbologies       12         UPC/EAN       12         Code 128       12         Code 39       12
Supported symbologies
Supported symbologies
UPC/EAN
Code 128
Code 3912
Code 93
Code 11
Interleaved 2 of 5 (ITF)
Discrete 2 of 5 (DTF)
- ,
,
Codabar (NW - 7)

	Matrix 2 of 5	123
	Korean 3 of 5	123
	Inverse 1D	124
	Postal Codes	
	GS1 DataBar	
	Composite	
	2D Symbologies	
	Symbology-Specific Security Levels	
	Macro PDF	
	Macio i Di	120
Chapter 9	9430 Addendum	
•	Overview	
	Benefits	
	Power-On Behavior	
	Configuration	
	Color Cameras	
	Capture Vial Label & Capture Vial Contents	
	Capture Stock Bottle	
	Save Photo Count Only	
	Save Photo Validation	
	Operation	
	Pre-Count Alerts	
	Auditor	
	Photo Naming Convention	
	Photo Retriever	15
Indov		16

# 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.

The first 9 chapters apply to both the 9420 and 9430 Eyecon Models. Features unique to the 9430 model are detailed in chapter 10.

### 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 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 touchscreen.

# 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.

1.6

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</i> symbologies on page 121 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

9420 evaluated to UL 61010-1 3rd edition UL/cUL.

9430 evaluation pending UL 61010-1 3rd edition UL/cUL.

# 2 Introduction

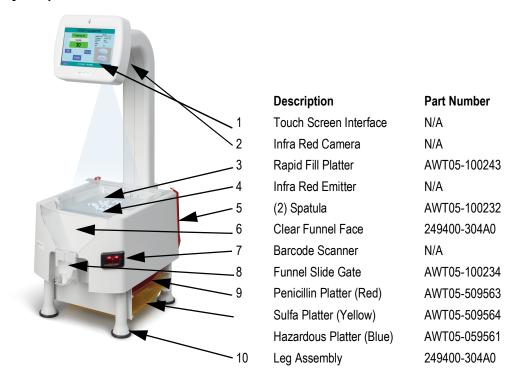
# 2.1 Video training

Visit <u>eyeconvpc.com</u> and go to Support or Click/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-hAOdLOPokPO52rWfNTPbP0rK9RG\_ap.

# 2.2 General description

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

Figure 2.0 Eyecon 9420



### 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.

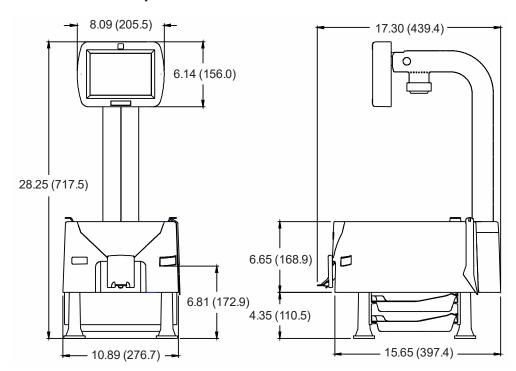


Figure 2.2 Eyecon dimensions

# 2.3.1 Sulfa and penicillin platter

The Sulfa (yellow), Penicillin (red) and, Hazardous (blue) 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 AWT05-509563.
- When ordering the Sulfa platter only, use part number AWT05-509564.

- When ordering the blue Hazardous platter only, use part number AWT05-509561.
- When ordering the orange Hazardous platter only, use part number AWT05-509562 (not included with the purchase of the Eyecon).

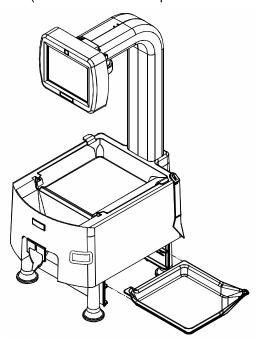


Figure 2.3 Platter Storage Location



The storage racks under the Eyecon has slots to store 2 trays. The 3rd tray can be stored by nesting it on top of the lower tray.

# **Preparing the Eyecon for use**

- 1. Insert the 10' long 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 the power connector location. The Eyecon is designed to be turned off through the touch screen menus. Refer to page 23 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.

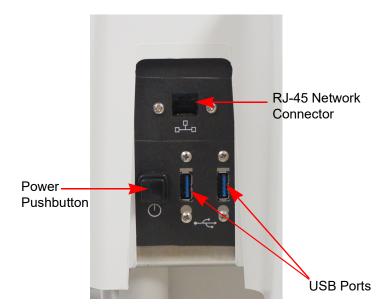


Figure 2.5 Eyecon Back Panel

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 or when excess pill dust is deposited on the tray or funnel surfaces. 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 and 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 guiding it over the top of the rails on each side of the funnel opening, sliding it down until it clicks past the retaining bump and lowers to cover the opening.



6. The gate should drop freely on its own. If the funnel gate sticks, check for burrs in the plastic on the edge of the housing slide rails. If any are found, carefully scrape or file them off to improve the slide action.

### 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 the rapid fill tray onto the Eyecon unit by holding the tray vertical and pushing 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.

 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.



☐ I agree to the Terms and Conditions outlined above.

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.



If you decide you would like to review the EUSA and/or EULA in the future, you
can do this by going into Settings menu, selecting About Eyecon menu in the
General group.

### 2.8.1 Medi-Span copyright and disclaimer information

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# 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. See the Auto-Update section for more details.

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

#### **Update warnings** 2.9.1

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 2.1, 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.

Standard	Level 2	Level 3	Level 4
One warning per day.	1/week	none	none
One warning per 4 hours.	1/day	1/day	1/day
One warning per hour.	1/four hours	1/four hours	1/day
One warning every 10 minutes.	1/hour	1/two hours	1/four hours
One warning every 5 minutes	1/ten minutes	1/thirty minutes	1/hour
	One warning per day.  One warning per 4 hours.  One warning per hour.  One warning every 10 minutes.	One warning per day.  One warning per 4 hours.  One warning per hour.  One warning every 10 minutes.  1/week  1/day  1/four hours	One warning per day.  One warning per 4 hours.  One warning per 4 hours.  1/day  1/day  1/four hours  1/four hours  1/two hours

Table 2.1 Update Warning Frequency

### 2.9.2 Install software updates

1. If your 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 <a href="eyeconvpc.com">eyeconvpc.com</a> to your computer, place them 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.

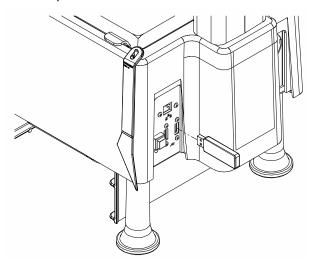


Figure 2.6 USB memory stick Installation

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 **Restart**, **Shutdown** or **Cancel**.

After shutting down the Eyecon, please wait until the screen goes from dark gray to black before disconnecting the power cord.



### 2.10.1 Restart

Press the **Restart** button to begin 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, Medi-Span data and database size information.

- 1. From the **START** screen, press **Settings**.
- 2. If prompted, login with Admin or Supervisor user credentials.



- 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.

Wait a few seconds and then swipe upward on the screen to see additional details, including the usage status of the various tables in the SQL database.

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, data can be permanently lost!!!.

See Backup / Restore menu on page 68 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.

Vial Patient's pill/capsule container to hold their counted Rx.

Vial label 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.

Patient pamphlet This paper may contain information that cannot fit on the

vial label such as patient instructions and barcodes.

**Stock bottle/item** Bulk storage bottles or boxes that hold pills, capsules,

creams or syringes for dispensing.

Stock bottle label The label on the bulk storage bottle that shows the

required information about the contained drug.

**NDC** # 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-XXXX-XXXX but this can vary as usually a leading zero is

dropped from one of the segments.

**UPC barcode** Currently, most drugs in the USA have a UPC barcode

which is associated with the drug's NDC number.

**2D barcode** 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. (It is a square barcode containing a pattern of small black and white

squares)

**Rx barcode** This is a barcode that contains the Rx number. This may

also contain other information as needed by the

pharmacy.

**Rx** Short for prescription.

# 2.15 Detecting incorrect, broken or other objects

The Eyecon identifies many broken pills and non-matching shapes by showing a live photo of the tray with red cross-hairs on the suspected object. However if broken pills or other pills are close enough to the expected flat or side-view shape of pill being counted, the Eyecon may still count it.

Scanning the barcode on the stock item to be dispensed is the best way to ensure the correct drug is being dispensed.

# 3 Settings menu

Depending on your Eyecon's configuration, users may need to scan in when accessing the **Settings Menu**.

To access the **Settings Menu**, press the **Settings** button on the **START** screen.

If your Eyecon has been configured to require User Login and User Login credentials have been created on the Eyecon, they can scan their login barcode or press the **Manual Login** button and key in their login ID as shown in the image below.



Next you will be prompted to key in a password.

Otherwise, users will go directly to the Settings Menu.



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 swipe up or down on either the left or right side of the menu. When you touch the item you want in the top level menu on the left side, 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 Underfill or Over-fill and to calibrate the platter.	

Eyecon 9420 Configuration Manager		
Main Menu Item	Description	
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	
Pharm. Mgmt. SW	Access this to set up 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.

Before adjusting the time, be sure to change the time zone (if needed) based on your location. If your Eyecon is connected to the internet, the

4/18/2017

3:39:25 PM

(UTC-05:00) Eastern Time (US & Canada)

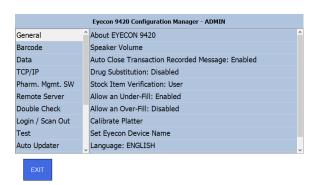
Eyecon clock will automatically be updated with the current time periodically.

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, adjust the Speaker Volume, enable or disable the Auto Close Transaction Recorded Message, Drug Substitution, Stock Item Verification, Allow an Under-fill or Over-fill, Calibrate the Platter, Set Eyecon Device Name, and choose Language and Country of Operation. 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. Some important examples include:

- Speaker
- · Medispan expiration date
- · Medispan data removal date
- · Network information
- Database usage information
- Shared DB information (if Database Sharing is set to 'Client'.)

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

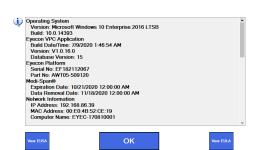
Press **OK** to exit the screen.

### 3.2.2 Speaker Volume

By default, the volume for sounds indicating a correct or incorrect barcode is set to the maximum.

- 1. From the *General* menu, select **Speaker Volume** on the right.
- 2. Use the slider to change the value.
- Press **OK** to return to the previous screen.





### 3.2.3 Auto Close Transaction Recorded Message

The next item in the *General* menu, shown below, 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 below is displayed saying the transaction has been recorded. This message will appear briefly after every counting transaction.



If disabled, the alternate message, shown below, is displayed reminding the user to dispense all of the pills from the tray and into the vial. Press **OK** to proceed in this case.



### 3.2.4 Drug Substitution

This is the next menu item in the *General* menu. The Eyecon can substitute a different stock item (NDC) if you run out of the drug specified in the Rx fill request. Refer to the following options.

- Touchscree
- 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.



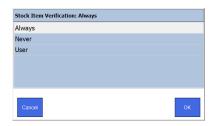
• If Equiv Drug is selected, the user will be prompted to approve the generic equivalent substitution if the scanned stock item differs from the drug (NDC) AND the selected drug is determined to be an equivalent based on the Medi-Span GPI code of the adjudicated drug matching the GPI of the selected drug.

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

### 3.2.5 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.





The PMS system can override this setting if it is sent in the Rx Fill request. This is defined in Settings > Pharm Mgmt SW > Interface Override of Stock Item Verification. If set to, "enabled," the setting on the Eyecon will be overridden if the Stock Item Verification field is populated in the incoming Rx Fill packet from the PMS system.

- 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.

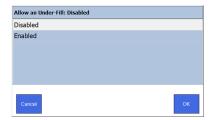


The selection for this parameter can be overridden by the data provided via an interface with the Pharmacy Management Software (PMS).

### 3.2.6 Allow an Under-Fill

If you enable this parameter and perform a partial fill, the Eyecon will keep track of the amount dispensed and inform the user of the remainder required if/when the Rx label is scanned some time after the initial partial fill.

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 Allow an Over-Fill

This item lets you enable or disable the ability to allow an over-fill of an Rx. (While not commonly done, some pharmacies have requested this capability. If an overfill is attempted, the user will be given a warning before the transaction is recorded.)

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



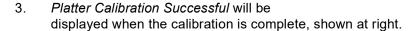
Success

Platter Calibration Successful!

### 3.2.8 Calibrate Platter

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

- 1. Remove all foreign objects and clean the counting platter.
- 2. Press the *Calibrate Platter* menu item and the platter will be automatically calibrated.







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

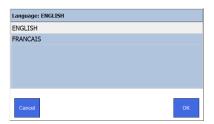
### 3.2.9 Set Eyecon Device Name

This is used to change the computer name of the Eyecon. Most users should not change this, however, some IT professionals may opt to customize the name, depending on their network requirements as the computer name is shown during various network operations if your Eyecon is connected to a network.

The default name is "EYEC-" followed by a numeric portion of your Eyecon's serial number. Any valid computer name can be used, but certain special characters such as "/" should NOT be used in the name. The name change will take effect after the Eyecon reboots.

Press **CANCEL** to return to the *General* menu without saving changes or press **OK** to save any changes made before returning to the *General* menu.

The Eyecon supports both English and French. You can change the language from the *General* menu by tapping **Language** and choosing either **ENGLISH** or **FRANCAIS** followed by **OK**. All displayed prompts and menus will be shown in the selected language upon exiting **SETUP**.



### 3.2.11 Select Country

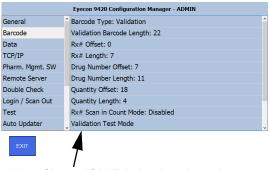
This option allows you to choose the US or Canada. From the *General* menu, tap **Country**. Then choose the country where the Eyecon will operate. Tap **OK** to accept and return to the previous screen.

This completes the General menu.

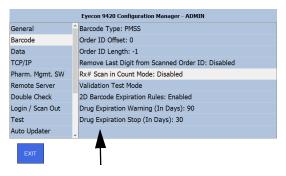


### 3.3 Barcode menu

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.







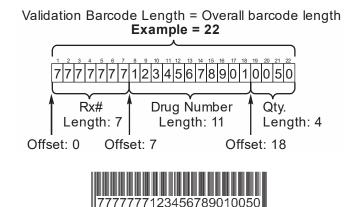
List of items if PMSS is selected.

# 3.3.1 Barcode Type

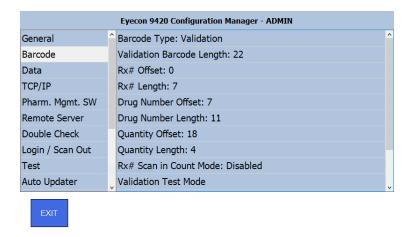
Tap **Barcode Type** at the top of the right hand screen and select a method of Rx filling; *Validation* or *PMSS*. Tap your choice and press **OK** to accept the change or **Cancel** to abort a change. Display returns to the *Barcode* menu.

### **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



Refer to the screen below as you move through determining and setting the values.



To determine the values for each section, you will need one of the barcodes that will be used.

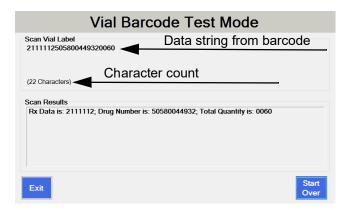
1. Tap **Validation Test Mode** in the right pane.

The Vial Barcode Test Mode Screen appears.

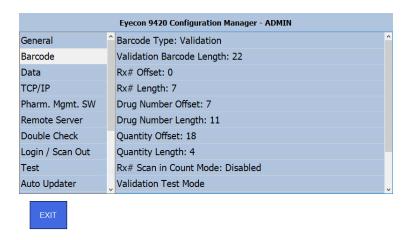


2. Scan the barcode.

The complete string of data from the barcode will be displayed along with the total count of characters.



3. Review the breakdown of the Rx Data, Drug Number, and Rx Quantity. If they appear correct, your barcode configuration is complete. If not, continue with the following steps and refer to the image below as necessary.



- 4. Enter the character count shown on the Vial Barcode Test Mode into the Validation Barcode Length menu item.
- 5. Determine which position in the text string is the start of the Rx#. The first digit would constitute an offset of 0.
- 6. Enter this number as the Rx# Offset.
- 7. Count the number of digits in the Rx# within the displayed number below, "Scan Vial Label." This is the Rx# length.
- Enter the Rx# length.
- 9. Determine which position in the string is the start of the Drug Number. The first digit would constitute an offset of 0.
- 10. Enter the Drug Number Offset.
- Count the number of digits in the Drug Number within the displayed number below "Scan Vial Label. In the US, this MUST be 11 for NDCs. In Canada, this MUST be 8 for DINs.

12. Enter this number as the Drug Number Length.



The total of the Offset and the Length for the last item in the barcode, should not be greater than the Barcode Length.

- 13. Repeat steps 5 through 8 for the Quantity Offset and Quantity Length parameters.
- 14. After adjusting the offset and length values, return to **Validation Test Mode** to confirm the settings have been properly configured.

PMSS stands for Pharmacy Management Software System. Eyecon supports more than 25 Pharmacy Management Software (PMS) providers, allowing pharmacies to have all of their technology connected. Selecting PMSS enables Eyecon's interface with the PMS after exiting setup mode and saving changes.

The following 3 types of interfaces are supported by Eyecon:

- Prescription Filling
- · Inventory Counting
- Counting Platter Pill Photo Sharing

This section of the Eyecon setup menu supports the Prescription Filling Interface.

#### PMSS Rx Filling Interface

The PMSS Rx Filling Interface works as follows.

1. PMS sends Rx fill details to Eyecon, typically when the label is printed.



The message sent to Eyecon may specify that the Eyecon should immediately advance to the Count Mode without any further action by the user. This is primarily used by our robotic product interfaces and central fill providers. Check with your PMSS provider to see if it is supported and how to configure their software to make use of this functionality.

- 2. Eyecon stores the data in the PMSS Table, an internal database.
- 3. When the user is ready to fill a certain prescription, they scan the barcode printed on the Rx label or associated paperwork.
- 4. Eyecon searches the PMSS Table for the record with a matching Order ID.

If a matching Order Id is NOT found, an error is displayed. If there are entries in the PMSS table, this will be error 22. Otherwise, the error message will be error 23. These error messages advise when the most recent data was received to give the user some idea as to whether some Rx messages are being received by Eyecon and is useful for troubleshooting communication issues.

- 5. Eyecon advances to the next menu, prompting the user to scan the stock bottle that matches the Drug Number contained in the record located for that Rx, assuming *Stock Item Verification* is set to either *User* or *Always*.
- 6. If the matching stock item barcode (or that of a different package size or a generic equivalent, depending on Drug Substitution settings) is scanned, the Eyecon advances to *Count Mode after the user accepts any warnings that are provided*, after the user accepts any warnings that are provided.
- 7. The user pours the required number of pills on the tray, scraping any excess off and returning them to the stock bottle.
- 8. The user presses **Finish** to record the transaction data and photo internally. This data is then sent to the PMS, if supported by your PMS System.
- 9. Pills are then quickly dispensed into the patient vial and the Eyecon is ready to fill the next prescription.

#### PMSS Parameters

PMSS configurable parameters are: Order ID Offset, Order ID Length, and Remove Last Digit from Scanned Order ID.



The Order ID is the unique value that the Eyecon uses to identify which prescription was sent to Eyecon by the PMS.

#### Order ID Offset

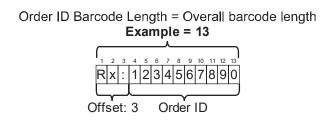
The Order ID Offset defines the number of characters to skip or ignore at the beginning of the Order ID barcode to get to the starting location of the Order ID. The default value of 0 indicates that the barcode contents starting at the beginning of the data should be used. That is the case for the majority of PMS interfaces that Eyecon supports. Please refer either to documentation specific to your PMS or our interface troubleshooting document for more details.

### Order ID Length

The length parameter specifies the number of characters in the barcode that should be used to locate the proper Rx record to be filled. A value of -1 (negative one) indicates that the entire length of the barcoded value (starting at the specified offset) should be used for the lookup.

#### Example:

Order ID Barcode contains the following: Rx:1234567890.



If the Order ID Offset were set to 3, and the Order ID Length set to 10, then the order ID extracted from the barcode by these selections would be 1234567890. Eyecon would then search for that 10 digit Order ID in its PMSS table.

#### Rx Scan in Count Mode

Enable this parameter to require a barcode containing the Rx# to be scanned in order to record an Rx Filling transaction (in both Validation mode and Count Only mode).



This feature is typically used when the pharmacy is NOT using the Eyecon's PMSS interface and they are NOT using a validation mode barcode that contains Rx #. Another scenario would be when an alternative number is to be recorded with each count performed on Eyecon.

When enabled, the [Finish] button is replaced with the following text:, "*Rx Scan Out Required*".

When Rx Scan Out is enabled, it is necessary to specify some aspect of the barcodes that will be used for the Rx Scan Out. This allows the Eyecon to distinguish between a custom vial label barcode, a stock bottle barcode, or a user ID barcode. The following parameters in this menu define the two options:

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

#### Rx Contains Alpha

Only enable this parameter if the barcode that contains the Rx# meets the following criteria:

• The Rx# will contain alpha characters.

#### **AND**

• The Rx# varies in length.

#### OR

• The Rx# will always be 12 characters in length.

(Since UPC barcodes are also 12 digits long, it is important to avoid an Rx# barcode that is also this length.)

#### Rx Barcode Detected

Available choices are **Save Only** and **Save and Finish**. Select **Save Only** to allow the barcode to be scanned before the final count is achieved. Most pharmacies will use the **Save and Finish** option to eliminate the need to press **Finish**.

#### Rx Barcode Length

Use this parameter to specify the total length of the barcode that contains the Rx# if the option for *Rx# Contains Alpha* is disabled. 12 digit Rx barcodes should be avoided since UPC barcodes contain 12 digits. If the Rx Barcode Length is set to 12 digits, the Eyecon will save a scan of a new stock item as the Rx# for that transaction instead of as a scan of an additional stock item.

#### Rx# Length

Enter the number of digits in the Rx# barcode. This can be the same as the Rx Barcode Length if the Rx Barcode only contains an Rx. Oftentimes, the barcode will include leading zeros in front of the Rx# which may not be present in the text printed on the label. Include any leading zeros in the count of digits (for numeric only Rx# barcodes) or characters (for alphanumeric Rx# barcodes).

#### Rx# Offset

The Rx# offset defines the number of characters contained in the Rx barcode that should be skipped to capture the Rx#1234567 in the example below.

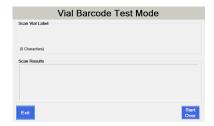
#### Example:

Rx Barcode = 1231234567

In this case, the Rx barcode length would be 10. The Rx# Length would be 7 and the Rx# Offset would be 3.

#### Validation Test Mode

 Select Validation Test Mode to open the Vial Barcode Test Mode window, shown below.



2. While viewing this screen, scan a vial label.

The contents of the barcode will be shown.

3. Press **Start Over** to test another label or **Exit** to return to the Barcode menu.

#### 2D Barcode Information

The Eyecon supports scanning 2D barcodes as a means to capture the serial number lot number, and expiration date of stock items with a 2D barcode. When **2D Barcode Expiration Rules** is enabled, the Eyecon will warn or stop the user from dispensing a stock item with a 2D barcode based on the following 2 parameters:

- *Drug Expiration Warning* Enter the threshold for the number of days before expiration that should result in a warning to the user. The default value is 90 days but valid values can be any value between 1 and 365.
- **Drug Expiration Stop** Enter the threshold for the number of days before expiration that should prevent the user from dispensing the item. The default value is 30 days but valid values can be any value between 1 and 365.

### Data menu

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



#### 3.4.1 **Transaction Purge Time**

Transaction purge time refers to the length of time that transaction data such as text details and saved tray photos, is kept in the Eyecon's database.

The Eyecon's SQL table used to store all of the data saved on Eyecon has a storage limit of 10 GB. If the database size reaches 9 GB, a warning is displayed advising the user to reduce the Transaction Purge Time. If the database continues to grow to 9.5 GB, the Eyecon will automatically reduce the purge time by 10%.

#### Example:

If the purge time was 180 days, the purge time would be reduced to 162 days. If this change does not result in sufficient reduction in database size, additional reduction warnings will occur.

Use the following steps to configure the Transaction Purge Time.

- 1. From the **Data** menu, tap **Transaction Purge Time** to bring up the numeric keypad.
- 2. Key in the number of days (between 1 and 540) to hold data before it is purged.
- 3. Tap **OK** to accept the change or **Cancel** to abort a change.

The display returns to the **Data** menu.



To prevent loss of any transactional data, consider using the Auditor to save older transaction data and annotated tray photos.

### 3.4.2 Delete Report Data

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

The screen returns to the **Data** menu.





Deleting report data will delete all transactions currently viewable in Eyecon's Auditor Transaction Table, including tray photos.

### 3.4.3 Delete Drug Data Override Data

- Tap Delete Drug Override Data and the screen at right is displayed.
- 2. Tap **YES** to delete all drug override data or **NO** if you do not want to delete it.

The screen returns to the **Data** menu.



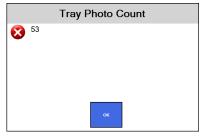


The Drug Override Data includes any edits to the Eyecon supplied Medi-Span drug data as well as any new drugs that were manually entered into the Eyecon.

## 3.4.4 Tray Photo Count

Knowing the Tray Photo Count can be useful in determining the amount of database memory used by these photos.

- Tap Tray Photo Count to see the number of tray photos currently saved on this Eyecon. See image at right for an example.
- 2. Press **OK** to return to the **Data** menu.



### 3.4.5 Compress Tray Photos

If the database on the Eyecon is approaching the 10 GB limit, compressing the tray photos may help by reducing the amount of space these photos occupy.

Tap Compress Tray Photos. The photos are automatically compressed with no need to confirm. You may see a screen flash, depending on how much space the photos occupy, however, the **Data menu** will remain on screen.

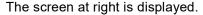


Tray photos are automatically compressed on the Eyecon. This parameter is only relevant to older photos on the Eyecon before this was changed in 2019.

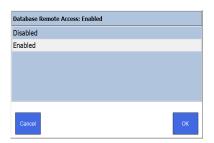
#### 3.4.6 Database Remote Access

Enabling this option allows remote connections access to the Eyecon database. This is used when using the database sharing feature, when multiple Eyecons share a single database, and for the Remote Auditor PC software to access the database on the Eyecon.

1. From the *Data menu*, tap *Database Remote Access*.



- Tap Enabled to allow remote access.
- 3. Tap **OK** to return to the previous screen.



## 3.4.7 Database Sharing

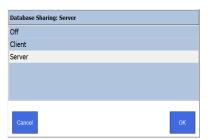
Database sharing allows an Eyecon to be set as the server Eyecon. The server Eyecon can then share its database with many client Eyecons. Client Eyecons must be able to access the server Eyecon's IP address on the network for this feature to work. Check with the Eyecon support team for a detailed document on the setup and use of Database Sharing.

Any Eyecon on the network that is set up to use database sharing can complete a partial fill performed on any other Eyecon in the network.

1. From the *Data menu*, tap **Database Sharing**.

The screen at right is displayed.

Tap the appropriate choice for your setup and network.



Off - no database sharing. All data will be stored locally.

Client - set this Eyecon as a client.

Server - set this Eyecon as the server.

3. Tap **OK** to save changes and return to the previous screen.



Pharmacies with the capability to host a SQL server on their network can avoid the Eyecon's SQL database limit of 10 GB by setting all Eyecons on the network to client. The client Eyecons will then need to be able to access the pharmacy-hosted SQL DB.

### 3.4.8 Auto External Tray Photo Backup

This feature allows the Eyecon tray photos taken when filling an Rx to be saved to a shared pharmacy network location.

1. From the *Data menu*, tap *Auto External Tray Photo Backup.* 

The screen at right is displayed.

- 2. Tap **Enabled** to use this feature.
- 3. Tap **OK** to return to the previous screen. Additional parameters will now be available and are explained in the next four sections.



This option becomes available only after enabling **Auto External Tray Photo Backup** and allows the user to specify where tray photos should be stored on the shared pharmacy network.

- 1. From the **Data menu**, tap **Enter Tray Photo Backup Path.**
- Use the on screen keyboard to type in the path where you want photos to be saved.
   Type the path as shown in this example: \\langd-win10-lap\DLshared.
- 3. Tap **OK** to return to the previous screen.



Auto External Tray Photo Backup: Enabled

Disabled

Enabled

### 3.4.10 Tray Photo Backup Path Username

This option becomes available only after enabling *Auto External Tray Photo Backup* and allows the user to specify the user name, if required, to access the backup path.

- 1. From the **Data menu**, tap **Tray Photo Backup Path: Username:**
- 2. Use the on screen keyboard to type in the user name for the specified network location. Type the user name and press **OK**.
- Tap **OK** to return to the previous screen.

#### 3.4.11 **Tray Photo Backup Path Password**

This option becomes available only after enabling Auto External Tray Photo Backup and allows the user to specify the password, if required, to access the backup path.

- 1. From the Data menu, tap Tray Photo Backup Path: Password.
- 2. Use the on screen keyboard to type in the password for the specified network location. Type the password and press **OK**.
- 3. Tap **OK** to return to the previous screen.

### 3.4.12 Tray Photo Backup Path Domain

This option becomes available only after enabling Auto External Tray Photo Backup and allows the user to specify the domain, if required, to access the backup path.

- 1. From the Data menu, tap Tray Photo Backup Path: Domain.
- 2. Use the on screen keyboard to type in the domain for the specified network location. Type the domain and press OK.
- 3. Tap **OK** to return to the previous screen.

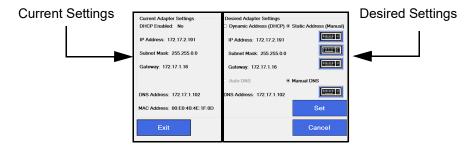
### 3.5 TCP/IP menu

The next menu in the **Configuration Manager** is the **TCP/IP** menu. Access this menu to see or change a variety of network settings.

 From the Configuration Manager, Tap TCP/IP on the left followed by TCP/IP Settings on the right.



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.



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 editing the last segment to use an address in the range your IT department has configured for your router static IP addresses. 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 addresses. Your IT person may pick other values based on your network configuration.

- 2. If needed, use the keypad buttons on the right side of the screen to change the corresponding adapter settings:
  - IP Address
  - Subnet Mass
  - Gateway
  - DNS address

3. Press Set to accept the settings and copy them to the Current Adapter Settings, shown on the left side of the screen. Verify that the values were successfully copied from the right side to the left side. If not, the entered settings may not be compatible with your router. Check with your IT support for assistance.



Pressing Cancel returns you to the TCP/IP menu without saving changes. Pressing Exit saves the changes before returning you to the TCP/IP menu.

## 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 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.



### EXIT

### 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 33, 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 46, establish an IP address.
- 4. Pick the PMSS provider in the menu item PMSS Provider: on page 48.
- 5. Specify a listening port. See *Listening Port on page 48*.
- Set the Use PMSS Connection Timeout on page 49 to Disabled unless otherwise directed.
- 7. Set the purge time. See PMSS Data Purge Time (In Days): on page 50.

To set up the Eyecon to send the Rx filling results back to the pharmacy system, follow these steps:

- 1. In the Remote Server menu on page 53, 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.

#### McKesson Enterprise Rx specific information

There are two choices for interfacing with Enterprise Rx.

- 1. Our original interface which is uni-directional and does not receive data back from your Eyecon.
- 2. McKesson ADS v3 is a new interface being introduced in early 2021. you will need to be running E-Rx 10.4 build or a newer release.
  - Refer to a separate detailed document that can be provided to you by your Eyecon Support team to configure the newer McKesson ADS3 interface.

To set up the Eyecon to send the Rx filling results back to the pharmacy system, follow these steps:

- In the Remote Server menu on page 53, 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 software provider for this information.
- 3. Set the *Remote Server Port Number* to the Port that the pharmacy system is listening to. Consult your pharmacy software 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. Swipe up or down to view all of the available choices. 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 port number the Eyecon will receive Rx Fill requests from the PMSS provider. 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 fill 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 which is also the maximum.

Press **OK** to accept the entry.

The PMSS data sent by the pharmacy system to the Eyecon is held in a table. Every day, the table is purged of any entries older than the chosen value. This table is also used to determine if a prior partial or complete fill has been preformed. Ensure that you maintain the data as long as you feel this is needed for your operations. The default value is 120 days.

### 3.6.6 Send Integer Quantity Only

By default, the Eyecon could send a fractional value, as appropriate for some unit-ofuse items, to the PMSS system in the bidirectional packet (count results packet). If Send Integer Quantity Only is enabled, the Eyecon will truncate any fractional value and send the resulting integer value. This is ideal for a PMSS system that is not capable of processing fractional count values that can occur for unit of use items.

#### 3.6.7 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.

#### 3.6.8 Interface Override of Stock Item Verification

This parameter will allow the incoming PMSS pocket to override the general menu Stock Item Verification parameter. When disabled, the Stock item verification setting on the General menu will be used, even if the PMSS system specifies a different value in the incoming communication to the Eyecon.

### 3.6.9 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 individual annotated tray photos from the Eyecon. Check with your pharmacy software provider to determine if they support viewing of the counting platter photos from within their application.



### 3.6.10 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 counting platter photos. The default port is 80 as most PMSS providers that support this feature also use port 80.

#### 3.6.11 Allow Rx Refills

This parameter allows the Eyecon to refill an Rx that has previously been recorded as filled. If set to, "**Disabled**," the Eyecon will not allow the process to continue when the Rx has been previously filled.

### 3.6.12 Provide Prior Fill Warning

For pharmacies that use the same Order ID value for every fill and that have enabled Allow Rx Refills, enabling this parameter prevents the refill warning from being shown.

#### 3.6.13 Echo Received PMSS Packets

This feature allows the Eyecon to echo an incoming Rx fill request sent by the PMSS system to up to 3 other devices on the pharmacy network. This is useful if the PMSS system cannot send Rx Fill requests to multiple devices. In this case, the PMSS system can send the Rx fill request to an Eyecon on the network. The Eyecon then echoes the request to other devices on the network that are visible to the Eyecon. Enabling this parameter results in the next four 'Echo' parameters becoming visible in the **Data Menu**.

#### 3.6.14 Echo Port #

Select **Echo Port** # to define the port number for the IP addresses defined in the following parameters. The device the Eyecon is echoing the request to must be ready to receive the incoming packet on this port #.

This completes the Pharm. Mgmt. SW menu.

## **3.6.15 Echo IP Address 1:**

Key in the IP address of the first device to echo the Rx Fill request to, utilizing the port number in the parameter above as well.

### **3.6.16 Echo IP Address 2:**

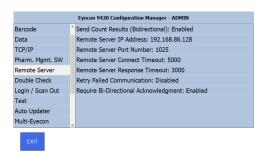
Key in the IP address of the second device to echo the Rx Fill request to, utilizing the port number in the parameter above as well.

### 3.6.17 Echo IP Address 3:

Key in the IP address of the third device to echo the Rx Fill request to, utilizing the port number in the parameter above as well.

### 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.



## 3.7.1 Send Count Results (Bidirectional):

Must be enabled in order to communicate the Rx fill count results back to the PMSS system when completing the fill on the Eyecon.

### 3.7.2 Remote Server IP:

Must be entered using the numeric keypad which appears when this is chosen.

#### 3.7.3 Remote Server Port Number:

Must be entered using the numeric keypad which appears when this is chosen.

#### 3.7.4 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.

### 3.7.5 Remove Server Response Timeout:

Is used to set the time, in seconds, that the Eyecon will wait for a response from the PMSS system before timing out.

### 3.7.6 Retry Failed Communications:

This will cause failed bidirectional communications to be queued up and continually retried until it goes through successfully. There will still be a warning displayed when the original communication attempt fails. This allows the user to be aware that there is a communication problem that needs to be addressed.

### 3.7.7 Require Bidirectional Acknowledgment:

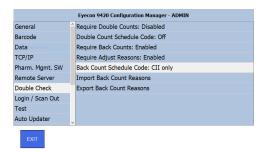
When enabled, this will cause a prompt to be displayed to the Eyecon user, if the proper acknowledgment is not received from the PMSS provider. If this appears, longer than two seconds, check network connections and if the problem persists, call Eyecon tech support or the PMSS provider tech support to get the communication issue resolved.

### 3.8 Double Check menu

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

### 3.8.1 Require Double Counts:

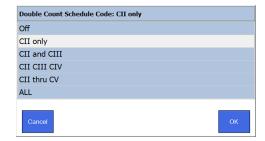
Enable or disable the requirement to preform double counts.



#### 3.8.2 Double Count Schedule Code:

Specify which controlled substance should result in the user being prompted to perform a 2nd count of the item being dispensed.

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.



# 3.8.3 Require Back Counts:

Enable or disable the requirement to perform back counts. Back counts only apply to the quantity of pills remaining in the currently open stock item bottle. If a new bottle was opened to fill the Rx, the back count calculation will take that into account. It will then indicate how many pills should be left in the newly opened bottle after filling the Rx.

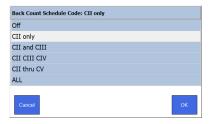


Your Eyecon will calculate and display the Expected Back Count by subtracting the amount dispensed from the most recent back count of the drug number being dispensed, If the drug has not been previously back-counted on the Eyecon, '???' will be displayed for the first back-count of each drug. If you have multiple Eyecon's in your pharmacy, we recommend that you enable Database Sharing as described in Section 3.4 to allow all Eyecons to share a single transaction table where the prior back-counts are recorded.

Enable or disable the requirement to specify an adjust reason when the final back count does not match the expected back count.

#### 3.8.5 Back Count Schedule Code:

Choose the Back Count Schedule Code from the list that appears, shown at right. This indicates the schedule of drugs that back count functionality will be applied. Tap **OK** to accept the change or **Cancel** to abort a change and return to the *Double Check* menu.





The following options allow the pharmacy to customize the back count adjust reason choices that will be displayed on the Eyecon whenever the final back count does not match the expected back count, if Require Adjust Reason is enabled.

Export the Back Count Adjust Reasons to a USB flash drive. You can then edit the reasons on your PC by following the instructions within the file and then import the updated file into the Eyecon when complete.

### 3.8.6 Import Back Count Reason:

See note above.

## 3.8.7 Export Back Count Reason:

See note above.

## 3.9 Login / Scan Out menu

### 3.9.1 User Recording Overview:

The Eyecon can be set up to either simply record the contents, or a portion, of a user barcode or to look up the contents of a scanned barcode in a preconfigured table of users and record the name and ID found in the barcode.

#### **Record User Barcode Contents**

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.



The simplest method to record which user filled each prescription or performed an inventory count is to simply record a portion of the full contents of a scanned user barcode.

The barcode may contain whatever user details you prefer. The following are some common choices:

- · First few characters of a user's first name
- · First few characters of a user's last name
- Initials
- ID #
- · Date of Birth

When creating user barcodes for this method, consider the following:

- The length of the barcode must be consistent for all users.
- 12 character barcodes should not be used for user barcodes so as to avoid confusion with stock bottle UPC barcodes.
- This method does not restrict access to the setup menus.
- This is the simplest method as it is not necessary to set up users on the Eyecon.

To record the contents of the user barcode, set **User Lookup** to **OFF**.

#### Look up a User Barcode in Users Table

If you want to look up a user barcode in the users table, set **User Lookup** to **ON**. Users will then need to be defined in the **Edit Users** menu. See *Edit Users* for details.

### 3.9.2 Setting Login

Tap Setting Login to either enable or disable (**Require** or **Off**) the need for Eyecon users to enter their login credentials to access the Eyecon Settings menu.

### 3.9.3 Use Imprivata Login

Using the Imprivata dual authentication on the Eyecon requires the pharmacy to have independently subscribed to Imprivata's user authentication service (refer to a separate more detailed document for use of this feature). It also requires that the count modes of interest be configured to use the Pre-login or Scan-out. See below for details.

By default, Use Imprivata Login is disabled. To enable it, tap on **Use Imprivata Login** and then tap **Enabled**, followed by **OK**.

If this feature is enabled, the following two parameters appear in the **Login/Scan Out** menu.

#### Imprivata Server FQDN/IP

• This option allows you to enter the Fully Qualified Domain Name or IP address of they Imprivata Server. Consult your IT professional for this information.

#### **Imprivata Scan Retries**

• Configure the number of fingerprint scan attempts before failing. The default number is 2, however, the number of attempts is currently doubled, so a user would actually have 4 attempts before the scan failed.



When adding Eyecon users, the, "Username" must match the registered Imprivata user name exactly. This is typically an email address. You can also create a barcode with the Eyecon user id to allow the person using the Eyecon to easily log in by scanning the newly created user ID barcode.

If using Imprivata, you can configure your Eyecon(s) to require dual authentication for any combination of the available modes (Count Only, Validation, or Inventory). The available choices for each mode are:

- **Off**: Dual authentication will not be used. Eyecon will use the, "one to many" method of authentication which may take longer, depending on the number of registered Imprivata users.
- **Pre-login**: The person using the Eyecon will be required to log in before starting the counting process.
- Scan Out: The person using the Eyecon will be required to scan their Eyecon user barcode to complete the counting process instead of tapping the **Finish** button. Users will be prompted to scan their Eyecon user ID instead of seeing a Finish button.

#### 3.9.4 Edit Users

Upon initial power-up, there will be no users entered. To add new users or edit existing users, you will need the following information.

- User ID
- User Name
- Password
- Access Level
- · Whether the user can train pills

If you have existing barcodes for each Eyecon user in your pharmacy, refer to *Test menu on page 61* and select *Scanner Test*. Record the contents of each user's barcode, so that you can enter it manually in this menu.



User ID barcodes are available in chapter 5, User login barcodes for you to use or you can create your own.

1. From the Login / Scan Out Menu, tap Edit Users

A table showing any existing users with their access levels appears.



2. Tap the **Add** button to access *Add New User* screen, shown below.



ADMIN

- 3. Enter the information for each box:
  - User ID Tap the keyboard button and enter the contents of the user's barcode. If using barcodes that begin with 'ID+', omit this prefix in your entry.
  - User Name Tap the keyboard button and enter the User Name exactly as you would like to have it recorded in the Eyecon's transaction table and sent to your pharmacy management system, if your Eyecon will be interfaced.
  - Password Tap the keyboard button and enter the Password for this user. There are no password limitations, so any value entered will be what the user needs to enter when logging in. Users will only be prompted to enter a password when accessing the setup mode, not for filing prescriptions, and ONLY IF Settings Login is set to Required.
  - Access Level Tap the down arrow and you Access Level will see a drop down list, shown at right. Select ☐ This user is SUPERVISOR the level of access you are assigning to this user. Refer to the *User Access Right Levels* in section 3.9.5 to see the restrictions imposed based on this section for each user. NOTE: at least one user must be assigned Admin level in order to maintain this menu.
  - Allowed to Train Pills If this user should be allowed to enter a new drug, change an existing drug or train pills, tap in the small box next to the text. A check mark 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.

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



#### **User Access Right Levels** 3.9.5

This table defines which Setting menus are accessible for each of the Access Levels available in the Editor User menu.

**USER** (Personnel assigned an Access Level of 'User' will only be allowed access to the following Settings menus)

#### General

- About Eyecon 9420
- Speaker volume
- Calibrate Platter
- Language

#### **Barcode**

Validation Test Mode

#### Data

Tray Photo Count

#### **Test**

- Scanner
- Camera
- Touchscreen
- Speaker

#### Backup/Restore

- Export User Drug Entered Data
- Export PMSS Rx Data
- Export Trouble Shooting files

### **Tech Support**

• All except Grant Users access To Configuration

**SUPERVISOR** - Personnel assigned an Access Level of 'Supervisor' will be able to access all Setting menus except the following:

### Login / Scan out

- Edit Users
- Setting login

**ADMIN** - Access is allowed to all parameters without restriction.

## 3.9.6 Count Login, Validation Login, and Inventory Login

For each of these counting modes, 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 counting modes. Choose *Off* so logins are not required. Choose *Pre-Login* to require the user to log in before starting counting, validation or inventory. Choose *Scan-Out* to require the user to scan their user barcode when finished with each count.



Choosing Scan-Out will cause the **Finish** button on the count screens to be replaced with a label indicating that User Scan-Out is required.

### 3.9.7 User Lookup

Choose to turn the user lookup function *On* or *Off.* If *User Lookup* is enabled, the Eyecon will look up the User ID that was entered/scanned to validate that it is an actual Eyecon user. It will also record the name associated with that user in the transaction record for future reference.

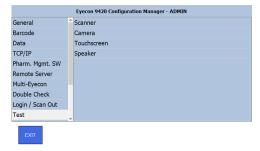
### 3.9.8 Auto-Logout

If using Pre-Login, this allows the Eyecon to automatically log off the currently logged in user after the count in process is completed i.e Pressing the Finish button for each transaction.

This completes the Login / Scan Out menu.

### 3.10 Test menu

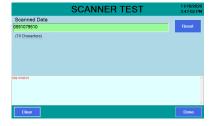
The Test menu, shown at right, allows you to test the scanner, camera, touchscreen and speaker of the Eyecon.



#### 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 barcode contents will also be displayed in the bottom of the screen, along with the number of characters coontained in the barcode.

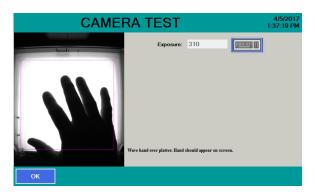


Press **Reset** to test another barcode. The first barcode number disappears from the green window but remains in the bottom window. All subsequent scans will save the number in the bottom screen. To clear this list press the **Clear** button.

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 a live image is being displayed. If a live image is NOT displayed, there may be a problem with your camera; if so, pelase contact Eyecon Technical Support.



#### 3.10.3 Touchscreen test

Press *Touchscreen* to bring up the test screen shown at right. Follow the instructions to test the touchscreen. If a problem is encountered, contact Eyecon Technical Support.



## 3.10.4 Speaker test

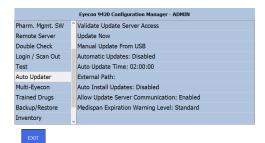
Press *Speaker* to start a tone playing from the Eyecon speaker. Press **OK** to stop the test and return to the *Test* menu. If a problem is found, contact Eyecon Technical Support.

# 3.11 Auto Updater menu

The Auto Updater menu allows you to make use of the various methods available to keep your Eyecon up to date. Enabling Augomatic Updates is the simplest method to do so. See details in *Automatic Updates*:

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

Each item is explained below.



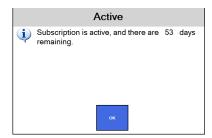


In order to use the Automatic Updates or the Update now selections\*, you must have connected your Eyecon to your network and configured the TCP/IP settings, as described in section 3.5. If your pharmacy firewall has been configured to only allow access to specific URLs, ask your IT support to allow this URL: https://update.eyeconvpc.com

\*unless you have also configured the External Path selections, in which case, the specified path is used instead of the Eyecon web portal.

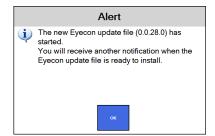
### 3.11.1 Validate Update Server Access

Tap on this to check if the Eyecon can access the Eyecon web portal where updates are posted and to see the remaining days in your annual subscription. See the example screen at right. Press **OK** when done viewing screen.



### 3.11.2 Update Now

Press this to begin downloading the latest Eyecon update from the Eyecon update website, if a newer update is available. 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 you want the update installed. Once the download has completed, the Eyecon will begin applying the update.





Download progress is displayed on the Eyecon Start screen in the lower left corner of the display.

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 a direct connection to the Eyecon web portal is not possibly in your pharmacy, you may click on the **My Account** link on the home page of the Eyecon website: **eyeconvpc.com** and enter your login credentials to manually download the latest Eyecon update to the root folder of a USB flash drive.

Plugging a USB drive that contains a newer update into either USP port on the back of the Eyecon should cause the user to be prompted to apply the update. If that prompt does not appear, this menu can be used to check for an update file on the USB Drive.

Insert the USB memory device into the USB and follow the onscreen prompts to install the update.



### 3.11.4 Automatic Updates:

Enabling automatic updates will result in the Eyecon checking for any newer updates, once per day, at the time specified in the subsequent parameter. If a newer update is found, that update is downloaded at that time.

## 3.11.5 Auto Update Time:

Choose time of day when the Eyecon should check for the existence of a newer update and if available, download that update file. The default is 2:00am, but if you intend to turn off your Eyecon at night, you may want to set this time to be your normal pharmacy closing time.

#### 3.11.6 External Path:

If your IT policy will not allow the Eyecon to access the Eyecon web portal to download updates, you can manually download the Eyecon update (as described in section 3.11.3) and place the update file on a server in your facility. Then you could configure this parameter on each Eyecon to point to this location. If you have configured this path, then; automatic updates will check this location for newer update files, update Now will check this location for newer update files, the next three parameters will appear below this menu item to allow you to enter to the credentials that may be required to access the specified location.

- 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.



Automatic updates requiring an external path are not commonly used. Organizations that do not allow Eyecon to access the Eyecon web portal should have their own IT personnel that can configure the External Path parameters as required for their network.

• Auto Install Updates: - Enable to cause automatically downloaded updates to also be automatically installed upon completion of download.

### **3.11.7 Allow Update Server Communication:**

When enabled, this allows the Eyecon to access the EyeconVPC.com update server. This parameter should remain enabled unless you have configured the External Path parameters and accessing the Eyecon site causes exception to occur on your network.

## 3.11.8 Medispan Expiration Warning Level:

The Medi-Span drug data needs to be updated quarterly and is included as part of the standard Eyecon quarterly update. The Eyecon will start warning the Eyecon user when the current date is past the Medi-Span expiration date for the drug data installed on your Eyecon.

The frequency of the warnings increases every week after the expiration date, as per the Warning Level selected here.

Level	Week 1	Week 2	Week 3	Week 4	Last 2 Days
Standard	Once per day	Every 4 hours	Every hour	Every 10 minutes	Every 5 minutes
Level 2	Once per week	Once per day	Every 4 hours	Every hour	Every 10 minutes
Level 3	None	Once per day	Every 4 hours	Every hour	Every 30 minutes
Level 4	None	Once per day	Once per day	Every 4 hours	Every hour
Level 5	None	None	None	Once per day	Every hour

Once the current update is applied, the warnings will cease. If update is not applied 28 days after the expiration date, the leased Medi-Span drug is deleted from the Eyecon, as is required by our lease agreement with WKH and your sub-lease agreement contained in the EUSA described in section 2.8.

If the drug data has been removed from your Eyecon, scanning the barcode for any drug, except any that have been manually entered, will result in the 'Drug Not Found' error message being displayed.

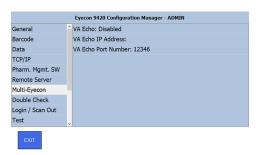
Applying the newest update will remedy this by reinstalling the current Medi-Span drug data.

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 directly together, not through the network, supporting the ability for one Eyecon to send Rx fill data to a 2nd Eyecon.

This feature was developed for use in the 'vault' where controlled substances are filled in VAMC pharmacies.



The Tech fills the Rx on the first Eyecon, in validation or count only mode, and scans out with the Rx# barcode.

Upon Finishing, the first Eyecon sends a packet to the 2nd Eyecon which is in PMSS mode, with Eyecon Native selected.

The 2nd Eyecon receives the Rx data and saves the details in the PMSS table.

The Pharmacist then scans the Order ID barcode and the Eyecon looks up the data and prompts the pharmacist to double count the pills, saving a 2nd tray photo of the pills being dispensed.

You will need to configure both Eyecons to have an IP address with the same value in the first 3 segments.

- 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 of the 2nd Eyecon.
- VA Echo Port Number: Select this and use the keypad that appears to enter the listener port that is configured on the 2nd Eyecon's Pharm Mgmt SW group.

# 3.13 Trained Drugs menu

Trained Drugs are the pill shadow images the Eyecon uses to count the pills on the counting platter. The Eyecon comes with trained pill images that accommodate over 50,000 NDCs. However, your pharmacy may need to train an NDC if the Trained Pill Image database on the Eyecon does not already have an associated trained image for it.

The export/import of the Trained Pill file allows you to transfer this data from one Eyecon to another. However, for pharmacies with more than one Eyecon, we recommend use of the Database Sharing feature described in section 3.4.7 which supports real-time sharing of the Trained Pill data, as well as other data. This can help when adding a second Eyecon to your pharmacy or if you need to send your Eyecon in for service.

Periodic exports of the Eyecon trained pill database is recommended to make sure you do not lose the custom training your pharmacy has already completed to accommodate any NDCs that were not initially supported by the default trained pill database on the Eyecon when new. Use the *Trained Drugs* menu, shown at right, to import or export the TrainedDrugs.mdb file. The menu choices are explained below.



- 1. Overwrite Existing on Import: Select True to use ALL of the trained Pill images in the imported file. Select False to only add any additional trained pills, not already on your Eyecon. We recommend choosing true unless you have already preformed a lot of pill training on this Eyecon.
- 2. Export to MDB Select this to export the TrainedDrugs.mdb file to a USB memory stick inserted in the USB drive of the Eyecon.
- 3. *Import from MDB* Select this to import the TrainedDrugs.mdb file from a USB memory stick inserted in the USB drive of the Eyecon.
- 4. Delete Trained Drugs This will delete all of the trained drugs from the Eyecon.

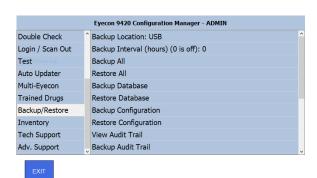


Use extreme caution when deleting trained drugs as this action cannot be undone without a pre-existing backup of the TrainedDrugs.mdb file. While the Eyecon support staff can provide a standard TrainedDrugs.mdb file, any drugs that your pharmacy uses not contained in the standard file will need to be retrained manually.

5. Test All Trained Drugs - This parameter will run an algorithm on all the trained drugs stored in the Eyecon to ensure that they do not have any clear problems. If a poorly trained drug is detected, it will be deleted from the Eyecon and will need to be re-trained.

# 3.14 Backup / Restore menu

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



# 3.14.1 Backup Location:

This defines where subsequent backup/restore functions will be saved to and restored from. There are 3 available options.

- *USB* This is the default location. Be sure to use a USB memory device with enough space for your backup needs. 8 GB should be sufficient for most Eyecon users but a 16 GB drive may be needed if your Eyecon database is nearing a full state. Check your database size in the **About** menu described in section 3.2.1.
- External This option allows the backup and restore operations in this menu to use network location. Consult with your IT department for help in setting this up as a user name, password, and domain may be necessary.
- Internal This option will use the Eyecon's hard drive as the backup/restore location.



The time required to complete various backups is affected by the amount of data on the eyecon as well as the speed rating of your USB drive or if an external path is specified, the speed and other activity on the network connection. Database backups can take up to 30 minutes longer, based on the above factors.

### 3.14.2 Backup Interval:

This defines the time in hours that the Eyecon will perform an auto-backup of its own database to the selected backup location. The default setting of 0 disables automatic backups. Configuration Files are not included in this backup process but can be backed up independently as necessary.

### 3.14.3 Backup All:

Backup All - Select this, to back up the entire Eyecon database to the selected Backup Location above.

#### 3.14.4 Restore All:

Select this to restore the entire Eyecon database, including Configuration Files from the selected Backup Location above. *Backup All* must have been performed at some point before choosing *Restore All*.

## 3.14.5 Backup Database:

Select this, to back up the Eyecon database to the selected Backup Location above. Configuration Files are not included in the process.

#### 3.14.6 Restore Database:

Select this to restore the Eyecon database from the selected Backup Location above.

### 3.14.7 Backup Configuration:

Select this to back up the Eyecon configuration file to the selected Backup Location above. The configuration file contains the majority of the settings that can be changed in the Eyecon settings menu, except items that are stored in a database such as the User Table and Trained Drugs.

### 3.14.8 Restore Configuration:

Select this to restore the configuration file from the selected Backup Location above.

#### 3.14.9 View Audit Trail:

View Audit Trail - Select this to view the changes that have been made to the Eyecon settings menu. If Eyecon users are configured, as described in **3.1.3** and **3.1.5**, and the Settings Login has been enabled in the Login/Scan Out menu, the user that performed the change will be recorded in the audit trail.

## 3.14.10 Backup Audit Trail:

Select this to back up the Eyecon audit trail to the selected Backup Location above.

## 3.14.11 Backup Debug:

Select this to back up the Eyecon Debug Table to the selected Backup Location above. This option is only required if Eyecon Technical Support requests it. It is used to collect details to investigate potential counting problems with specific pills.

# 3.14.12 Delete Debug Records:

Select this to delete the debug records if instructed to do so by Eyecon Technical Support.

# 3.14.13 Export Drug Data Override Data:

Select this to export the Drug Data Override Data to the selected Backup Location above. This is where the Eyecon stores drug information that is not part of the supplied Medi-span drug data used on the Eyecon. This table is where the data is stored for any drugs that were manually created or modified on your Eyecon. this export is saved as a .csv file which can be opened on a computer using Excel or other software applications.

# 3.14.14 Import Drug Data Override Data:

Select this to import the Drug Data Override Data from the selected Backup Location above.

## 3.14.15 Export PMSS Rx Data:

Select this to export the PMSS Rx Data to the selected Backup Location above. This export is saved as a .csv file which can be opened on a computer using Excel or other software applications. this can be used when installing a replacement Eyecon or to investigate communication problems.

### 3.14.16 Import PMSS Rx Data:

Select this to import the PMSS Rx Data from the selected Backup Location above. This will overwrite any existing PMSS Rx data currently on the Eyecon.

## 3.14.17 Export Troubleshooting Files:

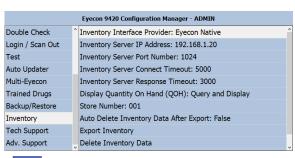
Select this when Eyecon Technical Support requests it to better assist you when investigating an issue. Typically, the configuration file and error.log file are requested, however, Eyecon Technical Support may require additional files.

## 3.14.18 Clear Vision Logging File:

Select this if instructed to do so by Eyecon Technical Support.

## 3.15 Inventory menu

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



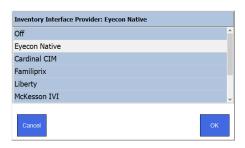


## 3.15.1 Inventory Interface Provider:

Tap this and you see the screen at right. The list of Inventory Interface Providers is updated regularly. If your provider is not listed below, they may support the Eyecon Native Interface. The list below was current at the time this manual was produced.

- Cardinal CIM
- Familiprix
- Liberty
- McKesson IVI
- Pioneer-Rx
- Qs1/Nrx
- Rx 30

Off - Select this to disable the inventory interface.





Eyecon Native - If your Inventory Interface Provider has indicated that they work with Eyecon but is not listed above, choose Eyecon Native to use the native Eyecon interface to query and send inventory counts back and forth with the pharmacy system.

When you select a provider, the following additional menu items appear in the *Inventory* Menu:

# 3.15.2 Inventory Server IP Address:

Enter the IP address where the inventory should be sent.

# **3.15.3 Inventory Server Port Number:**

Enter the Port number where the inventory should be sent.

# **3.15.4 Inventory Server Connect Timeout:**

Enter the amount of time in milliseconds that the system will try to connect. The default value is 5000 milliseconds.

# 3.15.5 Inventory Server Response Timeout:

Enter the amount of time in milliseconds that the system will try to connect. The default value is 3000 milliseconds.

# 3.15.6 Display Quantity on Hand (QOH):

Choose one of the following options for QOH.

- Disabled No QOH from the Inventory Interface Provider will be recorded or displayed.
- Query Only The QOH from the Inventory Interface Provider will be recorded but will not be displayed as a target.
- Query and Display The QOH from the Inventory Interface Provider will be recorded and will be displayed as the count target.

#### 3.15.7 Store Number:

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

# 3.15.8 Auto Delete Inventory Data After Export:

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

### 3.15.9 Export Inventory

Select this to download/export the inventory data that you can then upload to some inventory software providers. Some pharmacy systems support importing this file to update the on-hand position in the PMS, for those PMS providers that do not yet support an inventory interface with Eyecon. This file can also be opened with Excel, or some other programs, to review and analyze the data, or to save a record of the counts that were preformed on that date. The following files will be generated when exporting inventory data:

File Name	Header ?	Drug #	Drug Name	Qty	# of Transactions	T/D	Transaction #	User ID	User Name	NDC Format	# of fields	Compatibility
Summary_YYYY-MM-DD HH_MM_SS.csv	Yes	Yes	Yes	Yes	Yes	No	No	No	No	11 digit plus two dashes	4	
Summary_YYYY-MM-DD HH_MM_SS.txt	Yes	Yes	Yes	Yes	Yes	No	No	No	No	11 digits	4	
BriefSummary_YYYY- MM-DD HH_MM_SS.csv	No	Yes	No	Yes	No	No	No	No	No	11 digits	2	Computer Rx
CIMAudit_YYYY-MM-DD HH_MM_SS.csv	Yes	Yes	No	Yes	No	No	No	No	No	11 digits	3	Cardinal CIMs
Transactions_YYYY-MM- DD HH_MM_SS.csv	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	11 digits plus two dashes	19	Pioneer Rx
Transactions.txt	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	11 digits	19	
EntRxInv_YYYY_MM_DD _HH_MM_AM.txt	No	Yes	No	Yes	No	No	No	No	No	11 digit	4	McKesson Enterprise Rx

The message at right appears if the download/ export was successful.



# 3.15.10 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.

# 3.15.11 Import Inventory Reason Codes

Custom Inventory Reason Codes can be imported to the Eyecon. Use one of the following methods to import the codes.

#### **USB Flash Drive**

- 1. Place the edited *InventoryAdjustReasons.txt* file in the root directory of the USB flash drive.
- 2. Plug the USB flash drive into the Eyecon before tapping *Import Inventory Reason Codes.*

### **Eyecon Temp Directory**

If you need to import the Inventory Reason Codes from the Eyecon temp directory, please contact Eyecon Technical Support first.

- 1. Place the edited *InventoryAdjustReasons.txt* file in c:\temp of the Eyecon.
- 2. Tap *Import Inventory Reason Codes* without a USB flash drive attached to the Eyecon.

# **3.15.12 Export Inventory Reason Codes**

Inventory Reason Codes can be exported from the Eyecon to a USB memory device. This allows you to customize the Reason Codes and Adjust Signs to fit your specific needs.



The default InventoryAdjustReasons.txt file contains detailed instructions on the formatting and options for the Reason Codes and Adjust Signs.

The following export methods are available.

#### **USB Flash Drive**

 Plug a USB flash drive into the Eyecon before tapping Export Inventory Reason Codes.

The InventoryReasonCodes.txt file will be placed in the root directory of the USB flash drive. The InventoryReasonCodes.txt file will also be placed in the C:\Temp directory on the Eyecon.

### **Eyecon Temp Directory**

1. The Eyecon Temp Directory is C:\Temp. When exporting the inventory reason codes, a copy of the InventoryReasonCodes.txt is automatically placed in the Eyecon Temp Directory.

# 3.15.13 McKesson IVI Specific Details

*McKesson IVI* - If you have selected McKesson IVI for your inventory provider, the following additional menu items appear in the *Inventory* menu:

# 3.15.14 Set/Import Server URL:

Enter the McKesson supplied URL OR to avoid a typo in the entry process, copy the URL into a file name 'IVI\_URL.txt', place the file on a USB flash drive, insert the flash drive into the Eyecon's USB port, and click on this menu to import the URL.

# 3.15.15 Import Security Certificate:

Copy the McKesson supplied certificate file (named 'interface.cer') to a USB flash drive and insert it into the Eyecon's USB port and select this menu to import the file.

#### 3.15.16 Test McKesson IVI Communication:

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



It is necessary to also import Inventory reason codes that exactly match those in your configuration of Enterprise Rx in order for the interface to work.

# 4 Eyecon operation

### 4.1 START screen

Four modes of operation are offered.

- **Count Only** is a basic counting mode where the stock bottle barcode is scanned or the NDC is manually entered recalling associated drug information. Pills can then be counted by scattering pills on the counting platter. See *Count Only mode on page 80*.
- Validation provides an additional level of patient safety by assuring the stock bottle and quantity are correct for the prescription being dispensed. This mode is used both for simple barcode validation where the user scans a barcode (printed on each Rx label) that contains the Rx#, NDC, & Qty and the interfaced mode where the pharmacy management system (PMS) sends the details for each prescription to be filled to the Eyecon. See Validation mode operation on page 84.
- **Physical Inventory** offers a means to physically count all of your inventory. It also supports an interface with your PMS system to instantly update your on-hand position in the PMS. This can be used for cycle counting your stock, verifying your C-II inventory, or preforming your full physical inventory as needed. See *Physical Inventory mode on page 91*.
- Auditor allows you to view the details of completed transactions, the saved tray photos of dispensed pills, and the counts performed in Eyecon's inventory mode. A variety of filters are available to assist you in locating specific transactions of interest to you. You can also export the reports to a .csv file and the photos as .jpg files. A free Remote Auditor application is available by request. It provides the Auditor functionality remotely using a Windows based pharmacy computer. Contact Eyecon tech support to inquire about the Remote Auditor application. See *Audit reports on page 112*.



Button	Description	Reference Page(s)
Validation	Advance to the Validation mode	84

Button	Description	Reference Page(s)	
Count Only	Advance to the Count Only mode	80	
Physical Inventory	Advance to the Physical Inventory mode	91	
Auditor	Advance to the Auditor	96	
Settings	Change Eyecon settings	24	
Shutdown	Restart or turn off Eyecon	21	

# 4.2 Count Only mode

The Count Only 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. This mode can also be used to preform a quick check of any pills.

Click on **Count Only** to enter this mode; you may be asked to scan in or manually enter your login ID. This is determined by the settings for Count Login on **page 53**. Follow the onscreen prompts when asked for an ID.

At the bottom of the screen, you also have the following options:

**Retrain Item**: Click this button before scanning the stock item barcode if you are having difficulty counting a particular stock item. This will replace the currently trained pill shadow images with new shadow images. See *Train or Retrain a pill image on page 105*.



**Manual Entry**: Select this option if the stock item barcode is not able to scan properly. Then enter the number manually. See *Manual NDC entry on page 97*.

**Edit Drug Database**: Click this button before scanning the stock item barcode if you need to change or update any information about the drug. See *Edit drug database on page 98*.

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

# 4.2.1 Counting

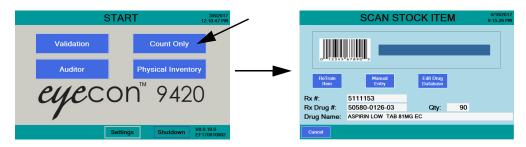
Stock bottles with 2D barcodes are becoming the norm and they are now required by the Drug Supply Chain Security Act (DSCSA). These barcodes contain the UPC code as well as the serial number, lot number and expiration date of the stock item.



The Eyecon can read this information and display it as part of the counting function.

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

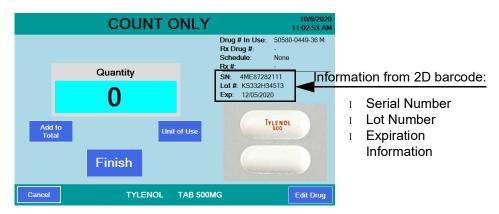
The SCAN STOCK ITEM screen is displayed.



2. Scan the stock bottle barcode. If a 2D barcode is available it is recommended that you scan it instead of the UPC code to capture the extra information it provides. It can be useful to cover the UPC barcode with your finger, if it is near the 2D barcode, to make sure it is not accidentally scanned.

> The display changes as shown below. A photo of the drug will be shown. If the drug photo does not exist or it is disabled, a message indicating that no photo is available will be displayed in place of the photo.

> Information such as the serial number, lot number, and expiration date will appear if a 2D barcode was scanned. If a UPC barcode is scanned, these values are not populated.





See Train or Retrain a pill image on page 105 to Re-Train an existing pill image or if the pill is new to the system.

See Manual NDC entry on page 97 if the barcode does not scan.

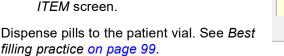
If NDC information is not present in the database, NDC not found! screen will appear. See Drug Number Not Found on page 97 for further information.

- 3. Pour pills onto counting platter. See Best counting practice on page 98.
- 4. Scrape excess pills into the funnel and return them to the stock bottle.



5. 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 followed by *the SCAN STOCK ITEM* screen.









6.

See Unit of Use for pill counting on page 100 for details.

See Dispensing large quantities on page 104 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 98.

#### **Expiration Messages**

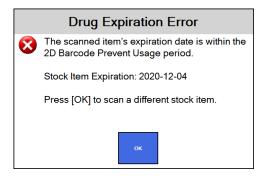
Your Eyecon will display warnings or prevent dispensing, if the expiration date obtained by scanning the 2D barcode on the stock items is within predefined limits. See **pg 36**.

#### **Expiration Warning**



This message indicates that the medicine will expire within a reasonable time after being dispensed. For example, the medicine may expire within 60 days and the Rx is for 30 days. Press **Continue** to fill the Rx with this medication and proceed or press **Cancel** to use a different stock item.

## **Expiration Stop**



This message indicates that the medicine has expired and cannot be dispensed. You will need to use a different stock item to complete this prescription. Press **OK** to continue.

# 4.3 Validation mode operation

Validation mode allows two methods of obtaining the Rx information. The method in use is defined by the *Barcode Type* menu item. See *Barcode Type on page 30*.

### 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 (PMS). See *Pharm. Mgmt. SW menu on page 42*. Typically when an Rx is printed, the PMS 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 PMS which includes the drug number dispensed, quantity dispensed, time/date of dispense and User details, as well as the Lot#, serial number, and expiration date of the drug dispensed. See *Remote Server menu on page 47* for information on setting up bidirectional communication. This allows the PMS workflow 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 PMS.

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 53*. Follow the onscreen prompts when asked for an ID.

# 4.3.1 Rx validation and dispensing



This section covers both Validation mode and PMS mode operation. The 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 PMS. This is for reference and troubleshooting only.

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

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 28 can bypass this screen or add an extra button on the screen (Skip Validation). The PMS data packet can also override this setting, if Interface



**Override of Stock Item Verification** is enabled in the Pharm. Mgmt. S.W. setting group. 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 105.

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 97.

3. Scan the 2D barcode on the stock item to be dispensed.



If multiple stock bottles are being used to complete a transaction, after emptying the first bottle, press the Add-to-Total button to record the number of pills from the first bottle. then after transferring those pills into the patient vial, before pouring any more pills on the tray, scan the 2D barcode on the next bottle to capture the Lot #, SN, and expiration values for this new bottle. Repeat as needed for each additional bottle to be dispensed. Your Eyecon will save multiple sets of these values.



If NDC information is not present in database, **NDC not found!** will appear. Refer to Drug Number Not Found on page 97.

See Edit drug database on page 98 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 27* for directions.

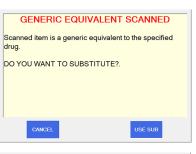


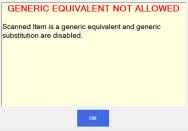


This is allowed only if enabled in the General menu. See *Drug Substitution on page 27*.

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.

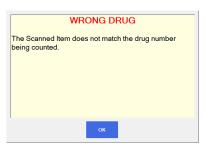
If *Equiv Drug* is not selected, you will see the warning at right, bottom, telling you that it can't be substituted.





# **Wrong Drug**

The warning at right, will be displayed if the scanned stock item is not the correct one specified for this prescription and it is also not a generic equivalent drug.





See Unit of Use for pill counting on page 100 for details.

See Dispensing large quantities on page 104 for more information.

If any details on the right side of the COUNT screen are incorrect, press the **Edit Drug** button. See Edit drug database on page 98.

#### 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 98*.

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



If you are in PMSS mode with bi-directional enabled (see Remote Server menu on page 47), when you press the **Finish** button the Rx filling results are sent back to the pharmacy management system. If there is a connection problem you will see the message screen at right.



Require Bidirectional Acknowledgement can be disabled if the Remote Server Error is displayed. This can be disabled if the PMS system is receiving bidirectional communication from the Eyecon but is having an acknowledgement issue. Please contact Eyecon Technical Support if this is required. They will work with your PMS provider to address the problem.

**QUANTITY MISMATCH** 

Target Quantity = 30

Current Quantity = 47
Over fills are not allowed!

Press [OK] to Resume Counting

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 28 or Allow an Over-Fill on page 28.

QUANTITY MISMATCH

Target Quantity = 30
Current Quantity = 0
Press [Yes] to Record Anyway.
Press [No] to Resume Counting

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 99 for tips.
- 7. Repeat the procedure for the next Rx.

#### Partial Fill

Each time a prescription barcode is scanned, the Eyecon looks into it's database to determine if a previous partial fill of that prescription was preformed. Follow the steps below to perform a partial count and to later fill the remainder due for that prescription.

- 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.

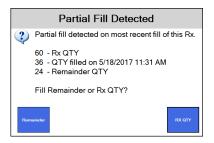
Press the **YES** button to save the Rx for completing at a later time or press the **NO** button to return to the *COUNT VALIDATION* screen. If you press **YES**, the *Transaction* Recorded screen is briefly displayed.



#### Fill the Remainder of the Rx

When the remaining portion of the prescription 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.

4. 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 107 and Back Count (DEA Controlled Substances) on page 107 for information on counting controlled substances.

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 61*. 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 some pharmacy management systems to update perpetual counts with an accurate physical count. See See Export Inventory on page 64.

As you begin or end a session, you may be asked to scan in or manually enter your login ID. Follow the onscreen prompts when asked for an ID.

The steps below assume you log in 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. Deleting the data only clears the Eyecon's inventory table. It does not affect the counts in your pharmacy.

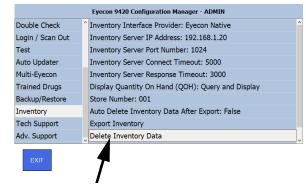
Deleting the data is recommended if you are about to perform a full store physical inventory so that the



Eyecon's inventory database will only contain a complete tally of the products in stock when the counting is finished.

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. Or press **NO** if you are simply performing cycle counts and do not need to have a database with only the counts beginning performed now.

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



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 100* for more information.

If the barcode does not scan see Manual NDC entry on page 97.

If drug information is not present in database, **Drug Number Not Found** screen will appear. See *Drug Number Not Found on page 97*.



If multiple stock bottles are being used to complete a transaction, after emptying the first bottle, press the Add-to-Total button to record the number of pills from the first bottle. Then after transferring those pills into the partial vial, before pouring any more pills on the tray, scan the 2D barcode on the next bottle to capture the lot#, SN, and Expiration values for the new bottle. Repeat as needed for each additional bottle to be dispensed. Your Eyecon will save multiple sets of these values.

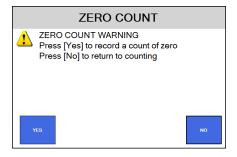
4. If you have full bottles press the **Unit of Use** button and type in the quantity of full bottles and then press **OK** to total the number of pills in those bottles. See *Unit of Use for pill counting on page 100* for more information.

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 98*. If you have more pills than will easily fit on the pill platter, see *Dispensing large quantities on page 104*.
- 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 99.
- 8. Return to step 3 to count more inventory.



# 4.4.2 Inventory operation with the interface connection

The Eyecon can be set up to make changes to and override the inventory Quantity On Hand (QOH) in your PMS System. Although many different inventory interface provider options are supported, the process of performing inventory with an interface connection is the same.

The process of performing inventory when using an interface connection is almost the same as described above with the addition of choosing a reason code after step1 in the previous section.

#### **Reason Codes**

When performing inventory with an interface connection, the Eyecon will prompt you for a reason code. This means you will need to select a reason for performing inventory from a selection as shown at right.





Inventory reason codes can be customized in the Settings menu by exporting the default inventory reason codes and editing as desired. Import the customized reason codes to have them available for the next inventory count. The export and import functionality can be found in the Inventory group in the settings menu. The inventory reason codes file contains detailed instructions on how to edit the file. The default options are the most common.

Inventory reason codes can only have one of three effects.

- Override update the inventory by either increasing or decreasing the Quantity On Hand (QOH).
- Add update the inventory by increasing the QOH.
- Subtract update the inventory by decreasing the QOH.

Refer to the table below for a simple explanation of the default reason codes.

Reason Code	Type of Action
Cycle Count	Override
PO Receipt	Add
Transfer In	Add
Transfer Out	Subtract
Return to Supplier	Subtract
Broken	Subtract
Physical Inventory	Override

# 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:

- Pre-Login on page 96
- Manual NDC entry on page 97
- Edit drug database on page 98
- Best counting practice on page 98
- Best filling practice on page 99
- Unit of Use for pill counting on page 100
- Hand counts on page 102
- Dispensing large quantities on page 104
- Train or Retrain a pill image on page 105
- Double Count (DEA Controlled Substances) on page 107
- Back Count (DEA Controlled Substances) on page 107

# 4.5.1 Pre-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.

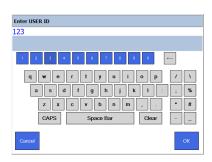
A keypad entry screen appears.

 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.

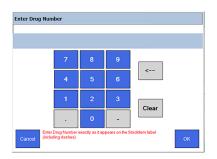




# 4.5.2 Manual NDC entry

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.

- 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

- If a scanned barcode number is not found in the database, the **Drug Number Not Found** screen, shown at right, is displayed.
- Tap the keyboard icon and key in the correct number. Be sure to also enter the dashes between the segments if the number has only 10 digits 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.

- Enter the missing information and press
   Save to add this drug into your Eyecon's database.
- 4. If the trained pill shadow was not found, the **Train Pill**

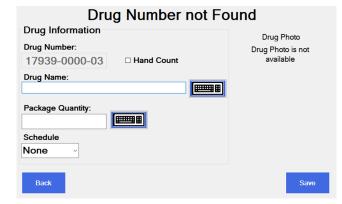


Image screen will appear next. See Train or Retrain a pill image on page 105.

### 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.

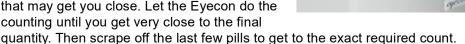
Press **Save** to save the changes.



# 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 as needed until the desired count is achieved.

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





When counting large quantities of pills, don't fill the tray more than 70-80% full. See Dispensing large quantities on page 104 for more information. Also, refer to this video for more information: https://www.youtube.com/watch?v=ysdKd1Q1iME&index=1&list=PLl-hAOdLOPokPO52rWfNTPbP0rK9RG\_ap

If pills are on top of each other, broken or other objects are present (such as a wrong shape/size pill or a desiccant) on the tray, the unidentified object is marked with a red cross-hair on the live photo of the tray that is shown on the screen.



Remove broken pills or foreign objects and/or unstack the piled up pills by slightly lifting the tray about 1/4" and forcefully tapping it back down to vibrate the stacked pills off of each other. For more severely stacked pills, you can use the Eyecon's spatula to slide pills off of each other. 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 105*.

# 4.5.6 Best filling practice



If you empty a bottle and need to use additional bottles to complete your count, after emptying the first bottle, press the Add-to-Total button to record the number of pills from the first bottle. Then after transferring those pills into the patient vial, scan the 2D barcode on the next bottle to capture the lot#, SN, and expiration values for this new bottle. Repeat as needed for each additional bottle to be dispensed. Your Eyecon will save multiple sets of these values.

#### 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.
- 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 bridge in the funnel if dispensed using the small pill method above. Follow these steps to avoid this situation.

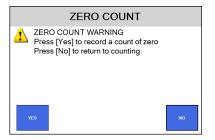
- 1. Cup your hand around the mouth of the bottle or vial and place this hand under the funnel and place the tongue of the funnel inside the vial or stock bottle.
- 2. Push your hand up to raise the funnel gate.

- 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.

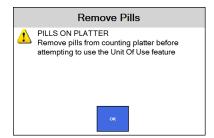


## 4.5.7 Common messages or warnings

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:

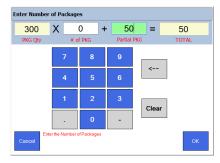
You want to dispense a combination of a full bottle of pills and loose, Eyecon counted pills. This saves the time of opening a full bottle and counting them on the Eyecon.

Below is an example of how this is used.

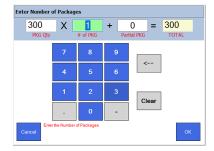
- Scan a barcode and, with the counting platter empty, press the **Unit of Use** button on the *COUNT ONLY* screen, shown at right.
- A keypad will be displayed. The entry window is pre-populated with a quantity of one package. The database knows this drug has 300 pills in one package and enters that in the first field



automatically. To change the number of packages, enter a new quantity and press the **OK** button to accept.



Unit of Use with partial package



Unit of Use with complete package

- 3. The COUNT ONLY screen is displayed showing the Total QTY calculated by the last screen. You can add to the current quantity by:
  - Scanning 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.
- Press the **Finish** button and the total quantity dispensed is recorded. See screen at right.

See *Data menu on page 37* 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) and was designated 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. Press either of the following.
- 1a. Press **Dispense Rx Amount** to immediately record that the Rx has been filled completely.

OR

1b. Press the **Unit of Use** button to record how many full and partial containers are being dispensed.



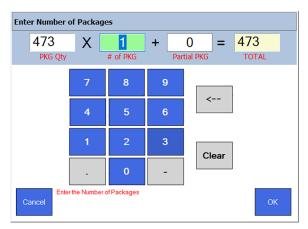
For blister packs, syrups, ointments, creams or syringes, you can key in fractions when prompted for **# of Pkgs**.

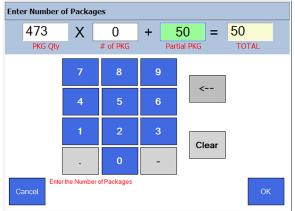
For example, if birth control pills come in blister packs with 28 pills/pack and 5 packs/box and you want to dispense 1 card or 2 cards, you can enter .2 or .4 in the # of Pkgs window. (.2 equals 1 card out of the 5 in the box. .4 equals 2 cards out of the 5 in the box).

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 pre-populated with the full amount of the package. In this example, it is 473 ml. The # of *PKG* window is also pre-populated with either 0 or 1, depending on if the target quantity is above or below a full package.

For example, if the target amount to dispense is 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.

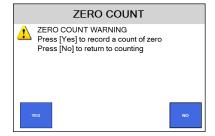




- 2a. If a change needs to be made, press the **Clear** button. The entry window will be blank. Use the numeric keys to enter the correct value and press **OK**.
- 3. Press **OK** and the *Hand Count Only* screen is displayed with the entered value.
- 4. Press the **Finish** button to save the entry.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

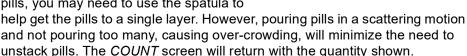
When dispensing more pills than can be comfortably placed on the platter, you can use the **Add to Total** key to save the current tray count, then remove the pills to a vial, you can then count another tray of pills. This can be repeated as necessary.

 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.



COUNT ONLY

- 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. Lift the tray about 1/4" and forcefully tapping it back down to separate pills from each other, repeat as needed. For more severely stacked pills or completely flat pills, you may need to use the spatula to



- 4. Press the Add to Total button and the screen at right appears. This message will remain on the screen until you dump the pills off the tray. It is recommended that you do NOT leave the counted pills in the funnel to avoid invalidating the count in case some of the pills fall into the funnel during the next pour from the stock bottle.
- 5. Dispense the pills on the tray into a vial using best filling practice and this screen appears. See *Count Only mode on page* 80.





- 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 to remove the excess pills.
- 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.
- geor geor
- 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 84*.

# 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 (as shown below) you can press the **ReTrain Item** button and go to step 3.

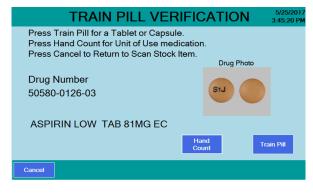


 Press the ReTrain Item button. The button will be highlighted in green when selected.



- 2. Scan the stock bottle label or manually enter the NDC number. The screen at right appears.
- 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 102* for more information.

 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. See *Double Check menu on page 48*.

 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.





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.

3. 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 and a second annotated tray photo will be saved.



# 4.5.13 Back Count (DEA Controlled Substances)

The Back Count feature is used to count the remaining pills in the stock bottle after each dispense based on the Back Count Schedule Code setting. Back Counts must also be enabled. See *Double Check menu on page 48*.

If the drug being dispensed meets the specified criteria for Back Counts, you will be prompted to count the remaining pills in the stock bottle after completing the fill. 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.

• 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. *Note: The Back Count will occur after a Double Count is preformed, if enabled and required.* 



• 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



shown will be '???'. Once the initial Back Count has been recorded, the Eyecon will track the remaining contents of the open Stock bottle.

#### **Back Count Quantity Mismatch**

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

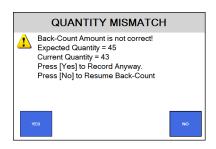
• If **Finish** is pressed, and the amount is a mismatch, the warning message at right appears.

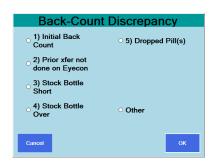
If all of the pills in the open bottle for the NDC have been counted, press the **YES** or

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

• If Require Adjust Reasons was selected in the Double Check menu on page 48, 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**.



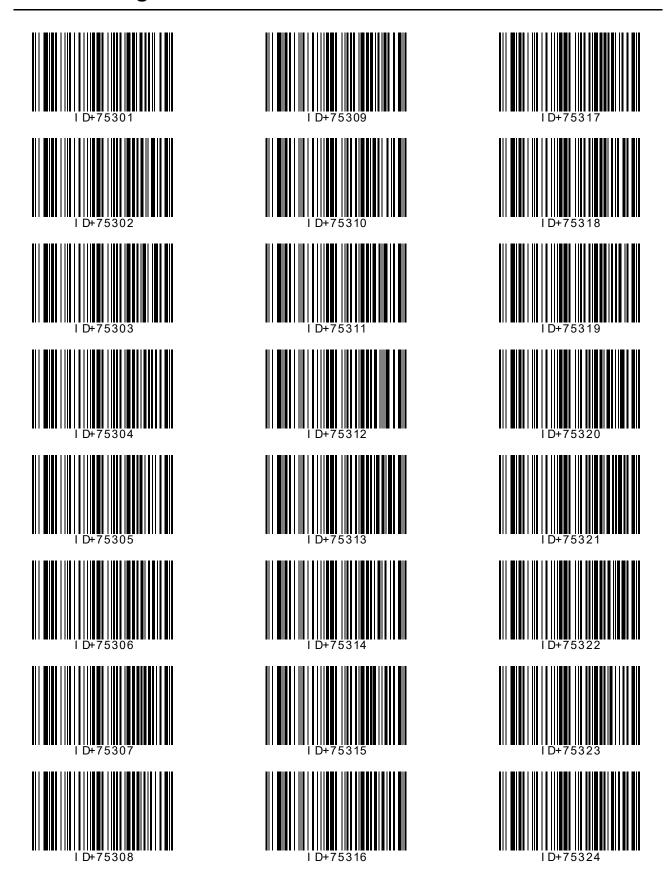


# 5 User login barcodes

Any of the example labels can be scanned at the Eyecon Scanner Test. See *Test menu on page 61* to determine which 6 digit code it contains. The User IDs 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 56*.

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. There is also a Windows-based application that you can install on your pharmacy computer that offers the same functionality with the added benefit of being able to print directly from the PC. The Remote Auditor is free and can be installed in as many of your pharmacy Computer(s) as necessary. For more information on the remote auditor, see *Remote Auditor*.

The audit 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.

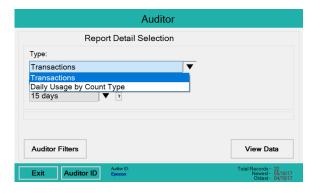
- 1. Press the **Auditor ID** button at the bottom of the screen and a text entry screen appears.
- Enter a unique name for this Eyecon, such as Store 123, and press the OK button to accept it ...

The Auditor window appears again.

## Specify and view a report

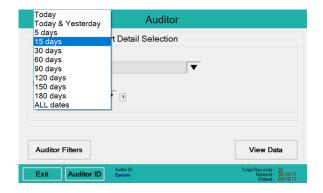
#### 6.3.1 **Transaction Type:**

Select the desired report type with the drop down menu. If any inventory transactions have been preformed, and not since deleted, then two additional choices appear in the drop down menu: **Inventory** and **Inventory** Summary.



#### 6.3.2 **Report Depth:**

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. NOTE: the report depth selection is not available for Inventory reports.



### 6.3.3 Auditor Filters:

Press the Auditor Filters button to select the filters for the report. The screen at right is displayed. NOTE: The Auditor Filters selection is not available for Inventory or Data Usage reports.

Press the desired filters to narrow the displayed transactions. There may be a list that appears for you to choose from or a keypad to type in name or value.



#### **6.3.4** View Data:

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

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.

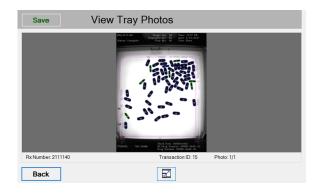


Press the Save All button to save the report to a USB memory stick.

## **6.3.5 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.

 Press the Save button to save the displayed photo and the last viewed report to a USB flash drive.



- 2. Press the **zoom** button at the bottom center of the screen to zoom the photo.
- 3. Press the **Back** button to return to the report *Transactions* screen.
- 4. Press the **Back** button again to return to the *Auditor* screen.
- 5. Press the **Exit** button when finished to return to the *START* screen.

## 6.3.6 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<sup>®</sup> 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.

## **6.4 Remote Auditor**

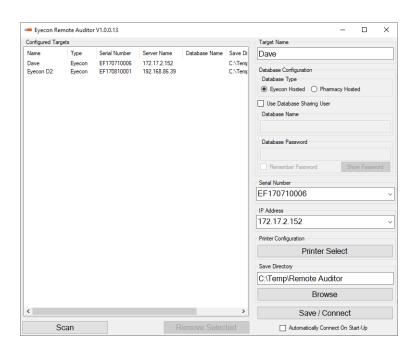
Remote Auditor is a Windows-based application that can be installed on your pharmacy PCs. This application provides the same functionality as the Auditor in your local Eyecon but also allows you to print tray photos as well as specific transaction information. Because the functionality of the remote auditor is practically identical to the audit application resident in the Eyecon, this section only covers those parts that are different.



The Remote Auditor application must be installed on a PC that is on the same network as the Eyecon and **Allow Remote Access** must be enabled on that Eyecon. See Remote Server menu on page 53 for information on this setting. If using SQL DB Sharing, the Remote Auditor should point to the Eyecon set as server or to the pharmacy hosted SQL database, if required.

## **6.4.1 Configuring Remote Auditor**

Once the Remote Auditor is installed, you will need to configure a few fields. This example shows how to configure for Eyecon hosted database.



- Choose Eyecon hosted database.
- 2. Click on **Scan** to see all available Eyecons in the network.
- 3. Double click on the Eyecon that is the server.

The fields on the right side of the screen populate with the Target Name, Serial Number, and IP address of the selected Eyecon.

4. Click on **Save / Connect** after all settings are correct.

## 6.4.2 Connect to specific Eyecon

After the Remote Auditor is set up, you can connect to a specific Eyecon remotely and perform the audit functions from your computer.

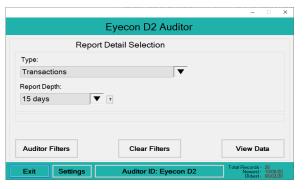
1. With the Remote Auditor open, click on Scan.

A list of connected Eyecons appears.

2. Double click on the Eyecon you want to audit.

The serial number and IP address for that Eyecon are displayed.

- Click on Save / Connect to view the Report Detail Selection for that Eyecon.
- Click on View Data to run the report. This could take a while depending on the size of the report.
- 5. To view a specific tray photo, select a specific record and click 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.
- 6. Click on the **Print** button to print the displayed photo and the last viewed report to the Eyecon.
- 7. Click on **Export** to save a copy of the tray photo on your PC.





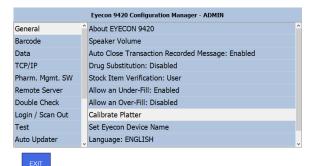
# 7 Accuracy verification procedure

In order to confirm that counts provided by the Eyecon are accurate, it is recommended that you 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.

- 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.
- 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 counting platter, 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

Accuracy verification procedure

# 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

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

## 9 9430 Addendum

This section of the 9420/9430 manual describes the features, configuration, and use of the additional capabilities of the Model 9430 Eyecon.

### 9.1 Overview

- 1. The Eyecon 9430 provides all the features and capabilities of the model 9420 plus the additional features described in this section.
- The 9430 include two additional high resolution, auto-focusing color cameras
  that are used to capture various photos of the prescriptions being dispensed.
  Also included is high intensity LED light ring surrounding the upper camera to
  help provide sufficient lighting for these photos.
- 3. Product Diagram:
- 4. Photo Types:
  - Pills spread out on the tray
  - · Pills in the vial
  - · Label on the vial
  - Stock bottle used to fill Rx



- Multiple photos of each type are automatically captured when appropriate such as after performing the **Add-To-Total** operation for larger counts that cannot be accommodated on a single fill of the tray.

#### 5. Funnel Checking:

a) The 9430 can scan the camera images at key points in the dispensing process to check and warn if pills are not completely removed from the tray and funnel, thus helping to ensure that all counted pills are placed in the patient vial and all excess pills are returned to the original stock bottle.

### 9.2 Benefits

The benefits that these color photos provide to a pharmacy include:

- 1. Allow a pharmacist in a pharmacy to approve prescriptions while seated at a computer, without handling each filled vial.
- 2. Allow for workload leveling between pharmacies (or to a call center or main office), allowing the in-store pharmacist to focus on the patients in the store.
- 3. Support placing a pharmacy in a remote rural area where the prescription volume would not justify a pharmacist salary, by performing 100% remote verification of prescriptions filled by a technician in the remote pharmacy (where permitted by state pharmacy regulations).

## 9.3 Power-On Behavior

Each time the model 9430
is powering up, the camera
auto-focus process will run.
This can take up to a minute
to complete.



2. Ensure that the focus target behind the tray is unobstructed. Once completed the Eyecon will advance to the Start Menu and is ready to use.

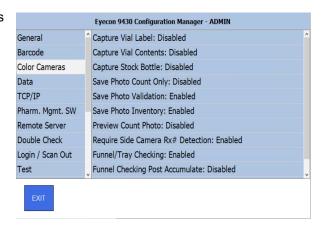


## 9.4 Configuration

Basic settings are those that should be adjusted to meet the operational preferences of your facility. Advanced settings are restricted and should only be adjusted under direction of Eyecon support personnel.

### 9.4.1 Color Cameras

 From the main menu, press the [Settings] button to view the configuration menus. Select the Color Cameras group on the left side.



2. The first 3 parameters specify which type of color photos should be captured:

## 9.4.2 Capture Vial Label & Capture Vial Contents

If either of these parameters are enabled, after a prescription is dispensed, the user would be prompted to place the filled vial on the tray and photo(s) of the Vial Contents and/or Vial label would be captured simultaneously.

- The user will be given the opportunity to capture multiple sets of these photos if needed

## 9.4.3 Capture Stock Bottle

Enabling this parameter will cause the Eyecon to prompt the operator to place the stock item on the tray after the Vial Label and/or Contents Photo(s) have been captured.



Alternatively, the stock item image can instead be captured by placing it next to the filled vial when the photo(s) are being captured, thus eliminating a step and a photo. Place the stock bottle towards the front of the tray so that it does not obstruct the view of the vial ensuring that the vial label photo is fully captured.

If the stock bottle barcode can be seen by the side camera, the vial label Rx barcode detection may produce errors and result in the 'bonk' sound.

- The next 2 parameters specify which counting modes should prompt for capturing of the specified color photos:

## 9.4.4 Save Photo Count Only

Specify whether the color photo capturing should take place in the Count Only mode.

#### **Save Photo Validation** 9.4.5

Specify whether the color photo capturing should take place in Validation Modes of operation. This includes both the barcode-based validation mode (without a PMS interface or the interfaced based validation).

#### 1. **Preview Count Photo**

Specify if the color photo of the Eyecon tray should be displayed to the user upon pressing [Finish] before it is saved. You may wish to enable this when you are first trying out the Eyecon 9430 to help familiarize you with the photos being saved, but most will soon want to disable this, to eliminate an extra button press in the dispensing process.

#### 2. Require Side Camera Rx# Detection

Enabling this parameter results in the side camera locating and decoding a barcode label on the vial, to ensure that the label applied to the vial is the correct label. The barcode contents must be the same as that which was used to initiate the Count mode. NOTE: This section only applies to Validation mode.

The user must orient the barcode to face the side camera.

#### 3. Funnel/Tray Checking

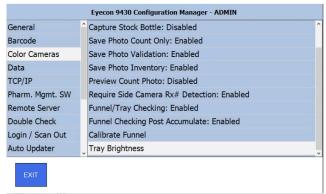
Enable this feature to have Eyecon verify that the tray and/or funnel are empty at key points in the Rx Filling process.

- a) Before the count mode begins (tray & funnel)
- b) Before pressing [Add to Total] or [Finish]
- c) After pressing [Add to Total] or [Finish] (tray & funnel)
- d) After dumping the tray, before prompting for the Vial Photos (funnel only)
- e) If **Funnel/Tray Checking** is disabled, then the next two parameters are no longer displayed in Eyecon Settings menu.

#### 4. Funnel Checking Post Accumulate

Enable this to force the user to remove the pills from the funnel after preforming an **[Add to Total]** operation. Some users prefer to keep the pills in the funnel to save time but this can result in count errors if uncounted pills, from the subsequent pour from the stock bottle, fall into the funnel.

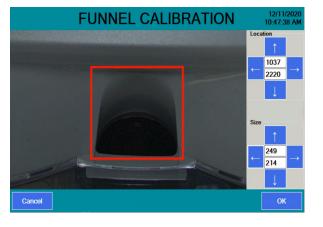
This shows the remaining parameters within the **Color Cameras** options.



#### Calibrate Funnel

This menu is used to define the area in the photo of the bottom of the funnel that the Eyecon analyzes to verify that the funnel has been emptied.

a) Touch & slide on the live view shown on the screen to pan around the camera's image to bring the bottom of the funnel into view.



- b) use the arrows (or click on the numeric value) in the top half of the menu to adjust the location of the red rectangle defining the perimeter of the funnel opening.
- c) use the arrows (or click on the numeric value) in the bottom half of the menu to adjust the size of the red rectangle defining the perimeter of the funnel opening.
- d) The rectangle should be sized and located similarly as shown at the right.
- e) Press **[OK]** to save the changes.
- Follow the next prompted instructions "Press OK after ensuring that the funnel is empty"
- The Eyecon will display "Calibrating Funnel" for up to a minute while it establishes the appearance of an empty funnel.

### 6. Tray Brightness:

Upon selecting this parameter, the autofocus will be preformed. Afterward this menu will appear:

If the pharmacy lighting is not very bright, increase the brightness on your Eyecon. The default brightness is 60. if



the brightness is too high, white pills may be over-exposed. Press OK to save any changes you have made to the brightness setting.

#### 7. Advanced Configuration:

Additional configuration menus exist in the **Adv. Support** menu. These menus will not normally need to be accessed within a pharmacy and therefore require the use of a factory supplied code to access them. Check with Eyecon Support if you are experiencing issues with your Eyecon 9430.

- If they believe that some adjustments are needed within these advanced menus, they will provide the access code and walk you through the appropriate checks or changes.

## 9.5 Operation

The 9430 operates in much the same manner as the 9420, with additional steps inserted where appropriate to ensure the tray and/or funnel are empty, and to capture the additional color photos.

### 9.5.1 Pre-Count Alerts

The first additional step in the prescription filling process is Tray/Funnel detection, which occurs as soon as the correct stock item is scanned.

- If the Funnel/Tray
   Checking is NOT enabled, skip ahead to step 6.
  - Remove any pills or other objects from the tray to advance to the next step. (If the



tray has been emptied and the message remains displayed, it may be necessary to recalibrate the platter; to do so, go to **Settings > General > Calibrate Platter**.)

 Next, the funnel is confirmed to be empty. If not, the warning at right is displayed:



- a) Dispense any pills remaining in
- the funnel. If the alert persists, try cleaning the funnel to remove any residue or debris.
- If that fails to resolve the problem go to **Settings > Color Cameras > Calibrate Funnel** and verify the rectangle location is correct. Then Click **[OK]** twice to re-calibrate.



Once the tray and funnel are emptied, the Eyecon advances to the count mode and the user preforms the counting process as described in section 4. During the counting process, you may click [Override] to ignore this warning. If you do so and user logins are enabled, a prompt will appear asking for login, which must be for a person with Supervisor or Admin status.

3. During the counting process, once the tray is becoming quite full, and you wish to save the current count, you can use [Add to Total] feature to do so.

However, if the funnel is not detected to be empty, this button will be temporarily disabled,



showing black text, until any extra pills have been removed from the funnel. This prevents the extra uncounted pills from being dispensed.

a) When the desired count is achieved, if there are any excess pills in the funnel, the [Finish] will appear grayed out with



'Funnel not Empty' above it, until the pills are removed.

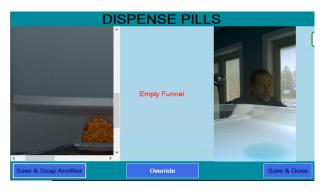
b) if the grayed out [Finish] button is clicked, the camera's view of the funnel is shown to identify what the camera is seeing that is preventing the completion of the transaction.



4. If funnel/tray checking is enabled, after the count has been saved, the user is prompted to "lift tray to transfer pills into funnel." Otherwise, the user will not be prompted to transfer the pills, but the transfer still should take place as part of the standard filling process. After tranferring pills, skip to step 6.



- 5. When the tray is empty, the user is prompted to empty the funnel into a patient vial. (first apply the Rx label to the patient vial.)
  - After the funnel has been emptied into the patient vial, proceed at the next screen
- 6. Place the filled and labeled vial on top of the green circle near the rear of the counting tray, rotating the desired portion of the vial label toward the right rear corner of the Eyecon. The top camera will capture the contents of the filled vial, which is shown on the left side of the menu





and the camera on the right rear corner will capture the label applied to the filled vial, and shown on the right side of the display.

- If desired, the stock bottle that was used to fill the Rx can be place adjacent to the filled vial to capture an image at the same time. However, ensure that the placement of the stock bottle does not impact the



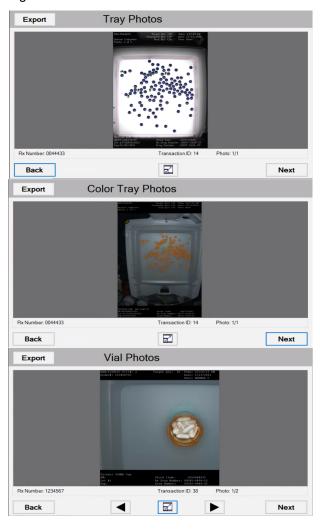
ability to detect the vial barcode, if enabled.

- 7. Press [Save & Done] to capture the photos. OR if additional photos are needed, click [Save & Snap Another] for the initial photo(s) and [Save & Done] for the final photo.
- 8. If Captured Stock Bottle is enabled, you will be prompted to set the stock bottle on the tray next. After doing so, press save to capture this photo.
- 9. The Eyecon will return to the first menu in the counting sequence for the chosen mode of operation and is ready for the next prescription.

## 9.6 Auditor

The Eyecon records the details for each prescription dispensed in a transaction table located in the on-board SQL database. The photos captured are also stored in a SQL table and linked to the corresponding translation.

- The auditor operates the same on a 9430 and the 9420 as described in the main body of the manual, except the additional photos may be viewed by pressing the [Next] button below each photo.
- 2. Additional photos of the same type may be viewed by pressing the [<] [>] button.



## 9.7 Photo Naming Convention

The Eyecon 9420 saves a black and white photo of the pills spread out on the tray each time the user presses **[FINISH]** in both the **Validation** mode and the **Count Only** mode of operation. The photos are annotated with over a dozen details for the Rx being dispensed.

The model 9430 also saves a configurable number of types of high-resolution color photos of the items being dispensed at various stages of the dispensing process.

- 1. The following specifics the naming convention for these saved photos when they are exported from the Eyecon in any of the three methods supported:
  - 1) **Auditor or Remote Auditor:** Exports are provided on demand by the user.
  - 2) **Photo Retriever:** Specific photos can be requested over the network connection.
  - 3) Auto-Save: Eyecon can be configured to automatically save the captured photos as each transaction is completed.



Each segment of the file name is separated with an underscore "\_"

**RX** RX#, i.e. the prescription #:

- Typically 7 digits numeric, but can be alpha and variable length
- For Count Only mode transaction when the Rx# is unknown, this
  is a sequential # assigned by the Eyecon.

#### **ID** Order ID:

- This segment is included if the Eyecon is interfaced with the pharmacy management system (PMS) in the pharmacy.
- This is the value, or subset of the value, contained in the barcode scanned at the Scan Vial Label menu.
  - Typically, this is the Rx# + Fill# but it can be any unique number used by the PMS.

YY-MM-DD: The date that the photo was captured

HH-MM-SS: The time that the photo was captured

- All of the photos captured for a single dispense will have the same date/time stamp on the photo filename.
  - The actual time stamp annotated on each photo will vary and indicate the instant the photo was saved.
- If the same Rx# and Order ID are captured again, the Date/Time
  of the photos can be used to identify a specific dispense.
- TT TYPE: These are used to designate the type of photo:
  - Most of the photo types can have multiple occurrence a number as appended to provide a unique name for each. This is indicated with a '#' in the following specs.
    - # will be 1 for the first photo, 2 for the second photo, etc.
    - These occur when [Add To Total] is used to capture multiple tray fills to complete the dispense, or [Save and Snap Another] for Vial photos.
    - The first 3 photo types are available on both the Model 9420 and 9430:
      - 1) **BWTP#** (Black & White Tray Photo)
        - Annotated black and white tray photos.
        - Each pill is sequentially numbered.
        - Multiple photos will be saved and sent if the

- [Add to Total] feature was used, in which case an incremental number will be applied.
- These photos are NOT captured for unit-of-use items
   (i.e. Hand counts or full bottles that are not opened).
- 2) BWDC# (Black & White Double Count)
  - Similar photo and same details as the BWTP, except these are captured during the double-count of an Rx, which is typically preformed with DEA scheduled drugs.
- 3) BWBC# (Black & White Back Count)
- Similar photo and same details as the BWTP, except these are captured during the back-count of the remainder in a stock bottle. Eyecon is typically configured back-count after dispensing DEA Scheduled drugs.

The new Model 9430 also captures color photos of each Rx Dispensed, in addition to the black and white photos described above. Which color photos are captured is configurable in the Eyecon's Settings>Color Camera menu.

- The next three photos are captured simultaneously as the 3 black and white photos are listed above, respectively.
  - 1) CoTP# (Color Tray Photo)
    - Captured at the same time as each of the black/white tray photos, BWTP.
    - Multiple photos are saved if [Add to Total] is used to count multiple tray fulls of pills.
  - 2) CoDC# (Color Double Count Photo)
    - Captured simultaneously as the BWDC.
  - 3) CoBC# (Color Back Count Photo)
    - Captured simultaneously with BWBC.
- The next photo is captured IF Funnel/Gray Checking is Enabled and Capture Post Dispense Photo is Enabled.
  - 1) CoPD# (Color Post Dispense)
- The next group of photos are captured after the pills are dispensed from the tray and placed in the patient vial.

- 1) CoVC# (Color Vial Contents photo)
  - Eyecon can be configured to capture and save this photo or skip this step.
- 2) CoVL# (Color Vial Label photo)
- Eyecon can be configured to capture and save this photo or skip this step.
- 3) CoST# (Color Stock bottle Top View photo)
- Eyecon Can be configured to capture and save this photo or skip this step.
- 4) CoSS# Color Stock bottle Side View photo:
- Captured simultaneously as the CoST photo.

This naming convention will result in all the photos for a single Rx fill to be grouped together if the list of files is sorted by filename in a viewer such as Windows File Explore.

## 9.8 Photo Retriever

- 1. The photo retriever interface is intended to allow pharmacy management software systems the ability to request specific photos from the Eyecon.
- There is a listener on the Eyecon that responds to incoming HTTP\_GET requests; this feature works identically to the operation on the 9420, except some additional arguments are available that allow for all or some subsets of the captured color photos to be returned.

**&AllPhotos:** This argument will send all available photos that match the Rx# or the OrderID# arguments

&TrayBW

&TrayColor

&VialTop

&VialSide

&FunnelPre

&FunnelPost

-If no additional arguments are appended to the Photo Retriever HTTP\_GET request, then, only the black/white tray photos will be sent back.

## Index

#### **Numerics** es)... 107 Drug Number Not Found... 97 2D barcode... 25 Drug Substitution... 29, 87 Α Ε About Eyecon... 23 Edit drug database... 98 About EyeCon 9420... 28 External scanner... 15 Access Eyecon Auditor... 112, 1 Eyecon Native Modes... 78 Accessing the saved photos and reports... Eyecon Operation... 78 Accuracy verification procedure... 118 Audit reports... 112, 1 F Auditor... 78 Auto Close Transaction Recorded Mes-Funnel... 12 Funnel Slide Gate... 12 sage... 29 В Н Back Count (DEA Controlled Substances)... Hand count... 102 107 Hand Counts... 102 Back Count Quantity Mismatch... 108 Back up data... 24 Barcode Scanner... 12 ı Barcode Type... 33 Infra Red Emitter... 12 Best counting practice... 98 Install Software Updates... 22 Installation... 13 C Calibrate Platter... 32, 33 L Camera test... 62 Leg Assembly... 12 canner test... 61 Licensing Agreement... 20 Cleaning... 17 Licensing agreement... 20 Clear PMSS Data... 50 Listening Port... 48 Count Only... 78 Login... 96 Counting... 80, 88 M D Maintenance... 16 Definitions... 24 Manual NDC entry... 97 Delete Report Data... 42 misfit objects... 25 Dispensing large quantities... 104 Double Count (DEA Controlled Substanc-

N	Serial number
NDC 24	location 12
NDO 24	Setting time and date 27
	Settings menu
0	Auto Updater menu 62
O	Backup / Restore menu 68
Over-Fill 32	Barcode menu 33
	Data menu 41
	Double Check menu 54
P	General menu 28
D (; 1 C) 00	Inventory menu 71
Partial fill 89	Login / Scan Out menu 56
Patient pamphlet 24	Multi-Eyecon menu 67
Penicillin Platter 12	Pharm. Mgmt. SW menu 47
Pharmacy package	Remote Server menu 53
configure 20	TCP/IP menu 46
Photo Retriever Application 51	Test menu 61
Photo Retriever Port 50, 51	Trained Drugs menu 67
Physical Inventory 78	Shutdown 22
Physical inventory mode 91	Software Updates 21
Platter	Speaker test 62
sulfa and penicillin 13	Specifications 11
PMSS 37	START Screen 78
PMSS Data Purge Time 50	Start-up Screen 78
PMSS Provider 48	Stock bottle label 24
Power	Stock bottle/item 24
off 22	Stock Item Verification 31
on 15	Storing Sulfa and Penicillin platters 14
Practices common to all modes 96	Sulfa Platter 12
Product 12	Supported bar code symbologies 121
Q	T
Quantity Mismatch 89	Touch Screen Interface 12
<b></b>	Touchscreen test 62
R	Train or Retrain a pill image 105
	Transaction Purge Time 41 Tray Photo Count 42
Rapid Fill Platter 12	
Routine Maintenance 16	Turn off the Eyecon 22 Turn on the Eyecon 15
Rx 25	Tufff of the Eyecoff 15
Rx barcode 25	
Rx Validation and Dispensing 85	U
	U
	Unit of Use for pill counting 100
S	UPC barcode 24
Scanner 20	Updates
external 15	software 21
OMOTHUL TO	

Use PMSS Connection Timeout... 49 User login barcodes... 110

## ٧

Validation... 34, 78
Validation mode operation... 84
Vial... 24
Vial label... 24
Video training... 12
View a Report... 113

## W

Warranty Policy... 24 Wrong Drug... 87

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