

KL1 Operating Manual



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Kirby Lester, Automation by Capsa Healthcare • 8170 Dove Parkway • Canal Winchester, OH 43110 USA info@capsahealthcare.com • 800.437.6633 • All Rights Reserved • U.S. Patent Numbers 5,317,645 & 5,768,327 5DIM-380301-OM-Rev B



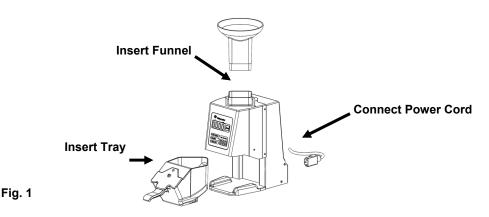
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1) Installation

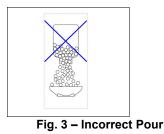
- Remove the KL1 from the shipping box. Save the shipping box and packing materials.
- Allow the KL1 to warm to room temperature before turning it on for the first time.
- Insert the funnel into the top of the KL1 (Fig. 1).
- Slide the counting tray completely into the KL1 (Fig. 1).
- Connect the power cord to the back of the KL1 and plug the other end into a standard power outlet. Turn the power switch to "On" (Fig. 1).
 See power requirement information on p. 7.
- The red display will briefly show the firmware version, then 0000.
- If four dashes with alternating zeros appear in the red display (----), push the counting tray completely in.



2) Counting

- Pour tablets/capsules into the funnel until the desired quantity is displayed.
- If the desired quantity is exceeded, simply remove excess tablets from the tray.
 - For best results, pour continuously, at an even rate (Fig. 2).
 - **Do not pour tablets directly into the funnel hole** (Fig. 3) as this may cause counting errors.





- As the desired quantity nears, slow the pouring speed and stop at the desired count
- (quantity in red on the main display).
- Select a vial or bottle according to the Min. Vial Size indicator (in green, in drams).



2) Counting (continued)

- Flip open the tray cover to the left or right. If right-handed, flip the cover to the right to expose the left-most spout hole. (Fig. 4).
- Pour the tablets from the tray into the vial (Fig. 5).
- Return the tray, inserting it completely.
- The KL1 will automatically reset, and four red zeros will reappear on the main display. The next order is now ready for counting.
- If **Zero** is pressed before removing the tray, an alarm will sound and the number displayed will remain constant.

Potential Errors:

- If tablets are counted and the **tray is not removed** for emptying within 3 minutes, the KL1 will beep every 30 seconds and the display will flash the count.
- If tablets are counted and the **tray is removed but not returned**, the display will alternate between the count and four dashes (----) to show the tray has not been returned to its base position.

Note: Kirby Lester units **will not** accurately count **translucent** capsules (e.g., tessalon perles) or light-tinted capsules, and may not accurately count items with a large hole or an odd shape.

Note: Do not pour liquids into the KL1 as this will disable the device and void the warranty.

Pour Slower Message

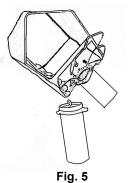
The KL1 is capable of counting up to 15 tablets per second.

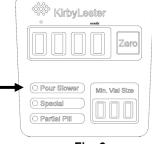
- If tablets are poured too fast, the orange Pour Slower light will illuminate (Fig. 6). Slow down, finish the count, empty the tray into a vial, and recount through the KL1 to ensure accuracy.
- Even though the KL1 will attempt to count multiple tablets at the same time, the Pour Slower light alerts that there is a *potential* for the count to be inaccurate.
- If the pour rate is too fast, the display will read **O-S (Over-Speed).** This stops the count.
 - Stop, remove the tablets from the tray, reinsert the tray and repeat the count.

Partial Pill Message

The KL1 will beep if it detects a partial tablet/fragment that is less than 25% (approx.) of a whole tablet. The orange Partial Pill indicator will flash (Fig. 7).

• Visually inspect the contents of the tray, remove the partial tablet, and restart the count.







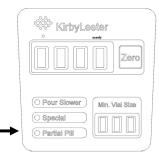


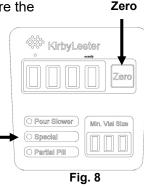
Fig. 7



Special Mode

Use the Special mode setting to count unique/odd-shaped tablets, tablets with holes or small to medium sized semi-translucent medications. Perform a test to ensure the KL1 can accurately count these items.

- To enter Special Mode, press and hold the Zero button (Fig. 8) and release after the single beep. The green Special mode light will illuminate (Fig. 8).
- Count orders as needed. The KL1 will remain in special mode.
- To exit Special mode, press and hold the Zero button and release after the single beep.
 Special



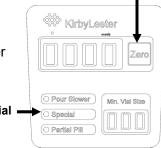
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Inventory Mode

Use the Inventory mode to count a large number of tablets/capsules that may exceed the tray capacity.

- To enter Inventory mode, press and hold the Zero button and release after the double beep (Fig. 9).
- The 4-digit red display will show "INV" and the green Special mode light
 will flash.
 Special
- Count the order. If the tray needs to be emptied mid-count because the amount of tablets being counted is larger than the tray capacity, stop counting and remove the tray. The 4-digit red display on the KL1 will remember the quantity at which it stopped. Empty the tablets into another receptacle, reinsert the tray, and continue to pour the remainder of the tablets.
- To continue counting another medication in Inventory mode, quickly press and release the **Zero** button. The display will flash INV, then 0000. A triple beep will sound and the green Special mode light will continue to flash. Proceed with counting the next medication.
- To enter Special mode within Inventory mode (for counting unique/odd-shaped tablets), press and hold the **Zero** button and release after the single beep.
 - To exit Special mode within Inventory mode, press and hold the Zero button and release after the single beep.
- To exit Inventory mode and return to Normal mode, press and hold the **Zero** button and release after the double beep. The flashing green Special light will turn off.

To Enter Special mode: Press and hold the Zero button and release after the single beep; The green Special light will illuminate. **To Enter Inventory Mode:** Press and hold the Zero button and release after the double beep; The green Special light will flash. Zero







3) Cleaning and Maintenance

Clean the following components at least once daily. Clean more frequently if your pharmacy dispenses many dust-generating medications or if you experience counting errors.

Materials: 70% isopropyl alcohol or mild soapy water (e.g., dish soap), lint-free cloth or paper towels. Do not use facial tissue, cotton balls or cotton swabs.

Before starting, turn off the unit and unplug it.

1. Funnel (Fig. 10)

A. Remove the top funnel and channel from the unit. Clean outside and inside thoroughly with mild soapy water. **Do not** use alcohol.

2. Glass Detector Windows (Fig. 11)

The unit's counting sensors are located behind the four glass detector windows (windows) inside the square hole. **Most counting errors are caused by pill dust accumulating on the edges and corners of the windows.** Clean the windows well.

- A. Wipe off excess pill dust on the four windows with a dry cloth.
- B. Wet a clean cloth with mild soapy water or alcohol and clean the four windows thoroughly to remove all remaining dust and residue. Wipe back-and-forth, not up-and-down. Do not press hard as this may break the windows.
- C. Wipe glass windows dry with clean cloth to remove streaks.

3. Counting Tray

Clean thoroughly with mild soapy water. Do not use alcohol.

4. Tray Sensor (Fig. 12)

Located on the KL1 behind the counting tray when the tray is fully inserted. This sensor tells the unit that the tray is properly seated. With the tray removed, clean the sensor window with water. Wipe dry to remove streaks.

Note about the use of mild soapy water versus isopropyl alcohol: Mild soapy water and alcohol both provide appropriate sanitary cleansing. Water leaves fewer streaks than alcohol on a Kirby Lester device's inside glass sensor windows. If streaks are found after cleaning, use just water and wipe dry. In general, prolonged alcohol exposure causes faster wear-and-tear on plastic.



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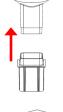




Fig. 11





4) Specifications

- Minimum Tablet/Capsule Size: 0.125" (3.175mm) diameter or width
- Maximum Tablet/Capsule Size: L 0.86" x W 0.74" (22mm x 19mm)
- **Power Supply:** Standard wall outlet, 110V/ 220V / 240V, 60Hz / 50Hz (no adjustments needed)
- Fuse: 250 volts 500 milliamps (slo-blow)
- Light Source: Infrared LED's
- Dimensions: H 14.6" x L 12.5" x W 5.6" (37cm x 32cm x 14cm)
- Weight: 6.95 lbs. (3.2kg)
- Operating Noise Level: Does not exceed 70 decibels
- Serial Number: Found on the silver plate attached to the right side of the KL1.

Electrical - Important

Wires in the power cable of the KL1 are color-coded as follows:

Europe		US/Canada	
Blue:	Neutral	White:	Neutral
Brown:	Live	Black:	Live
Green/Yellow:	Earth	Green:	Ground

If you change the plug of the KL1, note the above. If colored markings in the plug don't correspond, proceed as follows:

- \circ The neutral wire must be connected to the terminal marked N
- The live wire must be connected to the terminal marked L
- \circ The earth or ground wire must be connected to the terminal marked ${\bf G}$

The lightning flash with arrowhead symbol in an equilateral triangle indicates the presence of dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

Le voyant clignotant composé d'une tête de flèche dans un triangle équilatéral indique la présence d'une tension dangereuse dans le boîtier du produit pouvant avoir une magnitude suffisante pour entraîner un choc électrique.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance instructions in the literature accompanying the machine.

Le voyant montrant un point d'exclamation dans un triangle équilatéral vise à alerter l'utilisateur de l'existence d'instructions de fonctionnement et d'entretien importantes dans la documentation accompagnant la machine.







5) Safeguards

- Read these instructions carefully before using the KL1.
- Bring the KL1 to room temperature before turning it on for the first time.
- Unplug the KL1 before cleaning.
- Do not immerse the KL1 in water.
- Do not place the KL1 on an unstable surface.
- Lift the KL1 carefully from the bottom or sides (Fig.13).
- Do not pour liquids into the KL1.

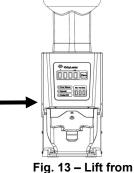


Fig. 13 – Lift from bottom or sides

6) Troubleshooting

Problem or Error Code	Probable Cause	Possible Solution(s)
E-1, E-9, O-S or unit counts by itself	Glass detector windows contain dust, residue or are cracked.	Clean glass detector windows thoroughly. Send unit in for repair if glass detector window is cracked.
Overcounts (more counted than poured)	Glass detector windows contain dust, residue or are cracked. Or pill fragments were poured through.	Clean glass detector windows thoroughly. Send unit in for repair if glass detector window is cracked. Remove pill fragments.
Undercounts (fewer counted than poured)	Pouring too fast, or pouring tablets directly into the funnel hole.	Slow pouring speed so the "Pour Slower" indicator does not activate.
Display flashes "" instead of "0000" with tray pushed in	Tray not fully inserted. Tray sensor window is dirty.	Fully insert tray. Clean tray sensor window.
Display reads "0000" even though counting tray is not fully inserted	Tray sensor is dirty or damaged.	Clean tray sensor window. Send unit in for repair if tray sensor is damaged.
Cannot exit Inventory Mode	Medications are still in tray.	Empty tray, then exit Inventory Mode.
KL1 is beeping	Medications are still in tray.	Empty tray.
Display is flashing	Tray is missing.	Empty tray, then fully insert tray.

7) Kirby Lester Service

Read this Operating Manual carefully. If additional help is required, contact Customer Service at 800.243.2465 or techsupport@capsahealthcare.com.