Operator's Manual

All LevALERT® Indicator Model 9700's

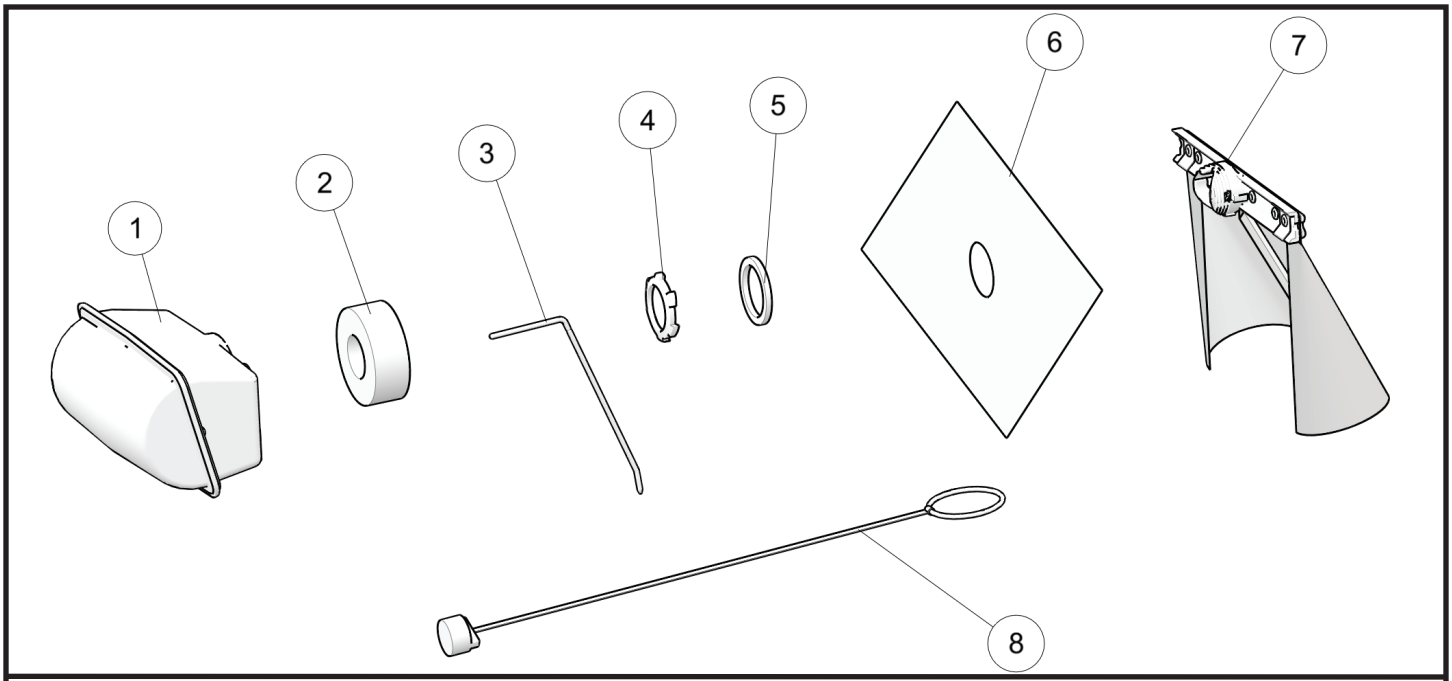
Manufactured by LTJ Enterprises, Inc., Roseau MN - Patent Pending

Thank you for your purchase of the LevALERT Indicator. Our products are proudly Made in the U.S.A. and assembled by hand with the highest quality standards. Each component is inspected prior to assembly to provide you with the highest quality product available on the market today.

IMPORTANT

The Operator's Manual provided is to be used as a reference guide. Please read and understand ALL sections before installing the LevALERT Indicator system. Should you have any questions please feel free to contact your local LevALERT dealer. You may also visit our website on your PC at www.levalert.com or by scanning the QR code with your smartphone.

PACKAGE CONTENTS:



1 - Indicator Assembly
2 - Gasket
3 - Connecting Rod
4 - Nut
5 - Spacer
6 - Locator Decal
7 - Activator Assembly
8 - Installation Cord
9 - Installation Instructions (not shown)

SPECIFICATIONS/REQUIREMENTS:

LevALERT Indicators are made for bins containing dry bulk solids ranging from 15 - 100 lbs./cubic foot (240-1600 Kg./cu.M) depending on the size of the activator bar selected. See below for recommended activator bar sizes for your specific applications bulk density range.

Minimum/Maximum Bulk Densities:

Model 9700-5: 5" (127 mm) Activator bar width
Maximum: *Not yet rated*
Minimum: *Not yet rated*

Model 9700-6: 6" (152 mm) Activator bar width
Maximum: *Not yet rated*
Minimum: *Not yet rated*

Model 9700-7: 7" (178 mm) Activator bar width
Maximum: *Not yet rated*
Minimum: 15 lbs./cubic foot (240 Kg./cu.M)

Mounting Orientation: LevALERT Indicators are designed to be mounted anywhere along a *VERTICAL* wall section *ONLY*. Do not install on sloped or tapered wall sections or within 5" (130 mm) of bottom cone.

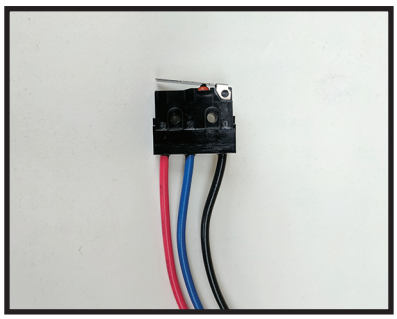
Installation hole size: 1-1/8" (29 mm) diameter

Bin wall thickness: Minimum 22 gauge - .025" (0.644 mm)
Maximum 4 gauge - .204" (5.189 mm)

Operational temperatures: Minimum -30°F/-34°C
Maximum 185°F/85°C

OPTIONAL ACCESSORIES:

Micro Switch:



At anytime by adding this micro switch it allows you to perform an electrical function such as turn ON/OFF motors, lights, horns, etc.

TOOLS REQUIRED:

Center Punch
Hammer
1-1/8" Hole Saw or Step Drill Bit
Round File
Pliers
Channel Lock Pliers

BEFORE YOU BEGIN:

The LevALERT Indicator is designed to visually show you the level of material in your bin while you remain safely on the ground. When filling your bin and the level of material reaches the level of the installed LevALERT a color tube (located within the indicator) changes from *BLACK* to a bright *YELLOW* color. As the material is emptied and recedes below the LevALERT the color tube automatically changes to a *BLACK* color.
LevALERT Indicators can be installed completely from outside the bin through one 1-1/8" (28mm) diameter hole.

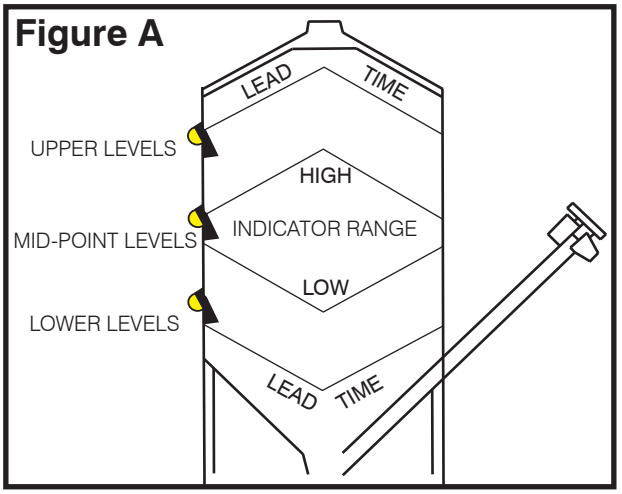
The following is a list of important factors to consider to help determine the best location(s) of the LevALERT indicator:

Determine "Key Level" positions.

- LevALERT will work best when positioned at a level which will alert you *"IN ADVANCE"* (Lead Time) of critical turn-off/turn-on of filling and emptying equipment. Lead time is generally based on the container size of the unit that fills or empties the bin such as truckloads, batch size or is based on amount of time. On bins that are filled/emptied more frequently, consider installing multiple LevALERT indicators at midpoint levels.

See Figure A for a reference of indication levels.

Figure A

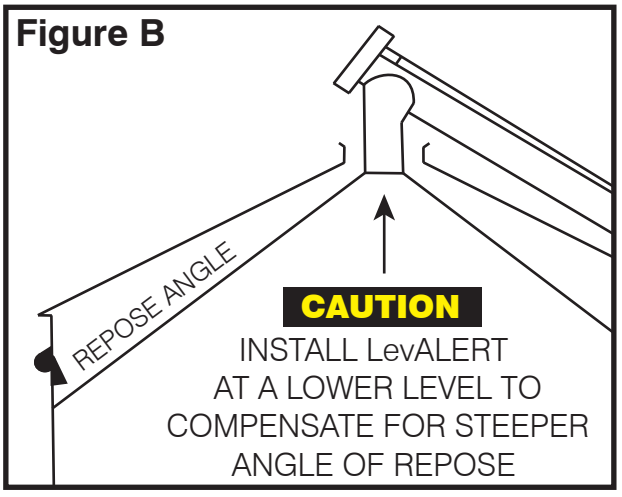


IMPORTANT:

The material in your bin is either higher or lower at the bin wall as compared to at the center of the bin. This is referred to as the "ANGLE OF REPOSE".

***See Figure B** for an example of repose angle. Keep in mind that the angle of repose varies due to type of material stored, moisture content, size of particulate, etc.*

Figure B



BEFORE YOU BEGIN: Cont'd

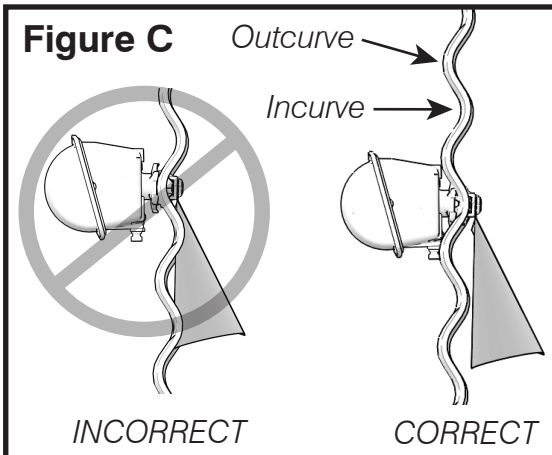
Where NOT TO install LevALERT

- All LevALERT model 9700's are designed to be installed at any position along a 90° *VERTICAL* wall section *ONLY.*

IMPORTANT:

DO NOT install on sloped areas of bin or within 8" (21 cm) of the bottom slope or obstructions inside the bin such as protruding nuts/bolts, ladders, wall stiffeners, etc.
DO NOT install on the outcurve of a corrugated binwall.
See Figure C

Figure C



INSTALLATION INSTRUCTIONS:

IMPORTANT:

Granular material must be a minimum of 6" below the installation point

1. Mount Activator

a. The activator will require a 1-1/8" hole to be drilled in the bin wall. To do so, first mark the location of the hole with a center punch to prevent drill walk and drill hole. The use of a 1-1/8" hole saw or step drill bit is highly recommended. ***Remove all sharp burs with a round file.***

IMPORTANT:

If installing on corrugated bin walls, drill through the center of the INNER VALLEY ONLY.
See Figure 1a

Figure 1a

b. Now apply the black diamond shaped locator decal by first removing only the center strip of backing from the locator and position around the hole as shown then press the center strip firmly against bin wall to hold in place.

IMPORTANT:

Keep the left and right hand tips of the locator as horizontal as possible. If not horizontal, lift and reposition the locator.

Then remove remaining upper and lower backing from the locator and press firmly onto bin wall.
See Figure 1b

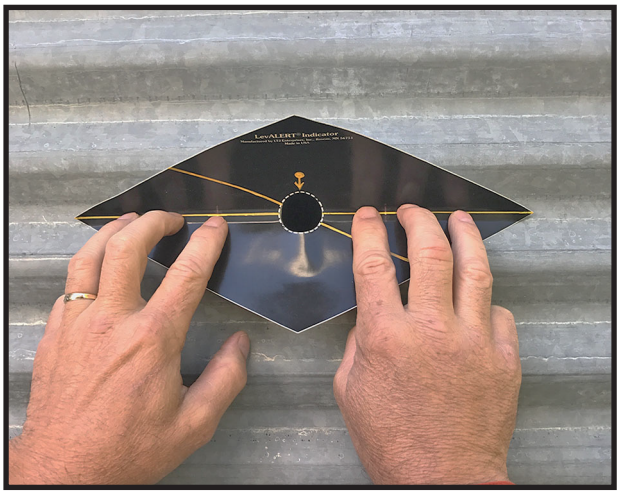


Figure 1b

Made in the U.S.A.

INSTALLATION INSTRUCTIONS: Cont'd

1. Mount Activator *(continued)*

c. Assemble installation chord by first threading the cord thru the nut. Then thread thru the spacer washer if required.

IMPORTANT:

Use the spacer washer on all wall types except for 2.66" corrugation.

See Figure 1c

NOTE: For 2.66" corrugation bin walls place the points of the nut facing away from the bin. For all other bins place the nut with the points facing towards the bin. **See Figure 1c**

Figure 1c

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d. After assembling the installation chord slide the installation plug straight into the slotted holes of the activator body and turn counter-clockwise to click/lock into place. **See Figure 1d**

Figure 1d

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e. Remove the green plastic spreader from the rod pocket in the activator fabric and discard. **See Figure 1e**

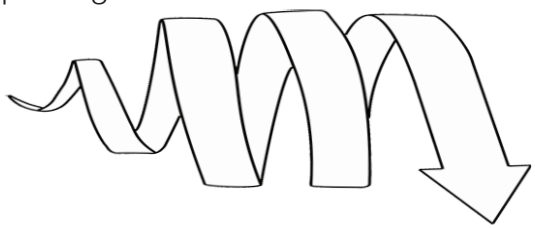
Figure 1e

INSTALLATION INSTRUCTIONS: Cont'd

1. Mount Activator *(continued)*

f. Lay the white plastic strip of the installation chord towards the end of the activator bar and then roll the fabric tightly around the mid section of the activator bar to form into a tubular shape as shown. **See Figure 1f**

NOTE: By rolling the fabric around the midsection in a spiralling fashion it will fit thru the hole easier.



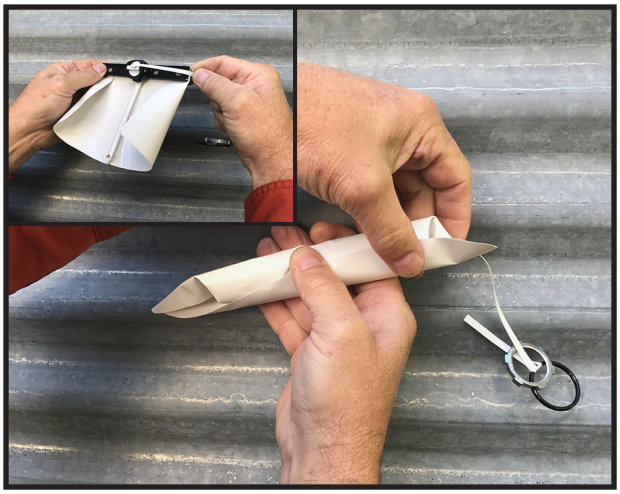


Figure 1f

g. Carefully insert the activator bar assembly completely through the hole. The black stop ring on the end of the installation chord will prevent it from falling into the bin. **See Figure 1g**

Figure 1g

h. Carefully pull the on the stop ring on the installation chord to retrieve the threaded end of the activator back through the bin wall and position on the yellow mark on the activator bar assembly in the 12:00 position (straight up). ***See Figure 1h***

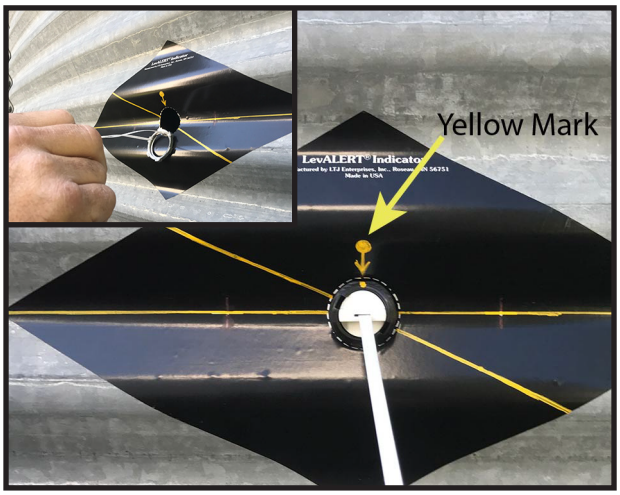


Figure 1h

INSTALLATION INSTRUCTIONS: Cont'd

1. Mount Activator *(continued)*

i. Keep light tension on the stop ring and position the yellow mark on the metal nut at a 12:00 position (same position as on activator body) and carefully thread nut onto threaded portion of activator body. **See Figure 1i**

CAUTION

Be careful not to crossthread nut.

Nut threads onto activator body very easily when correct.

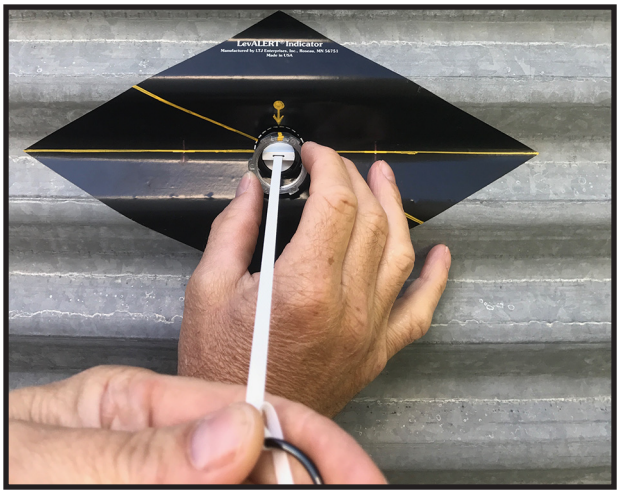


Figure 1i

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j. Titghten nut by holding center rib of installation plug with one plier and hold in a horizontal position. Use the channel lock plier to to turn nut clockwise until tight. **See Figure 1j**

CAUTION

DO NOT OVERTIGHTEN

Due to the supporting design of the activator body it is unnecessary to overtighten nut. **Make certain to maintain the yellow mark on the activator body in the 12:00 (straight up) position during tightening of the nut.**

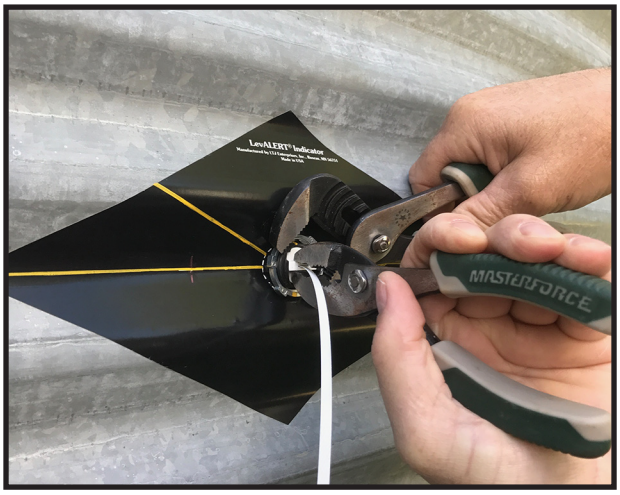

Figure 1j

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k. Remove installation plug by turning clockwise then pulling outwards to remove. ***See Figure 1k***

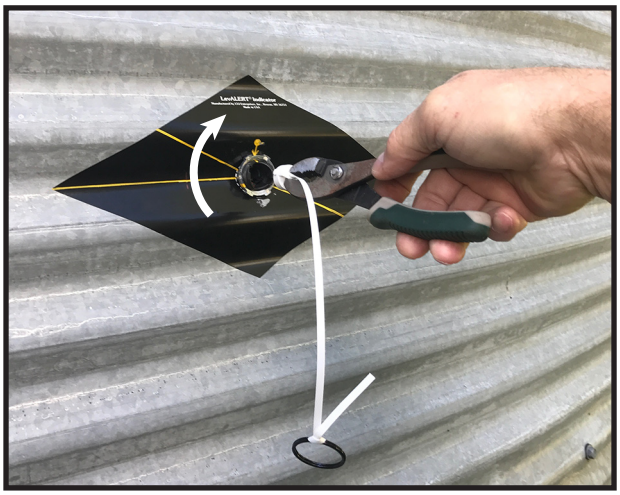

Figure 1k

INSTALLATION INSTRUCTIONS: Cont'd

2. Install Connecting Rod

a. Vertically align connecting rod with the o-ring retainer opening in the activator as shown.
See Figure 2a

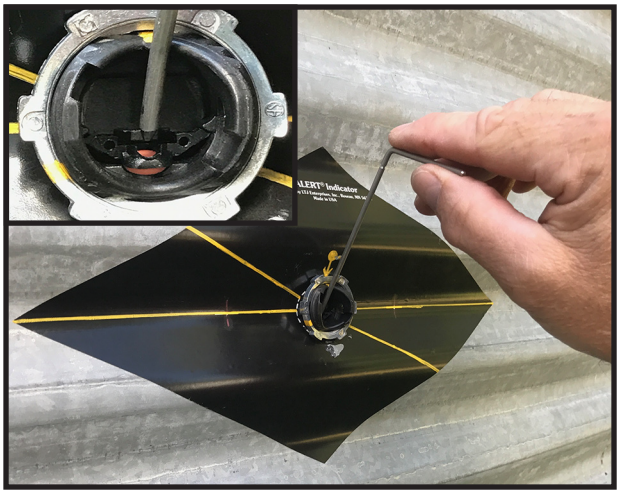

Figure 2a

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b. Gently insert rod into activator all the way to the bend of the rod as shown.
See Figure 2b

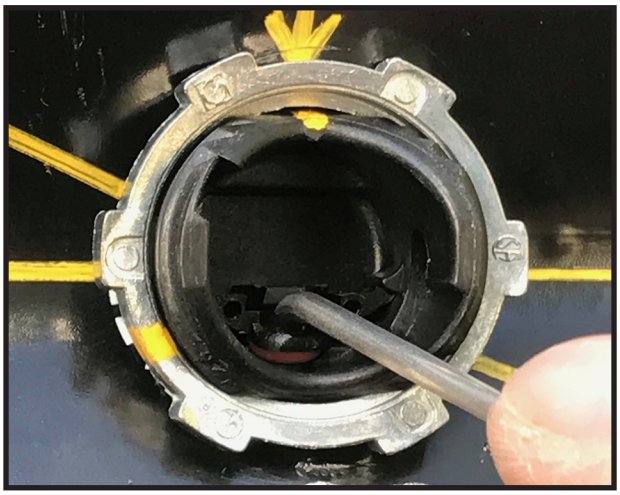

Figure 2b

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c. Lightly pull the rod back up until you feel it pop into the o-ring groove formed into the body of the rod.
See Figure 2c

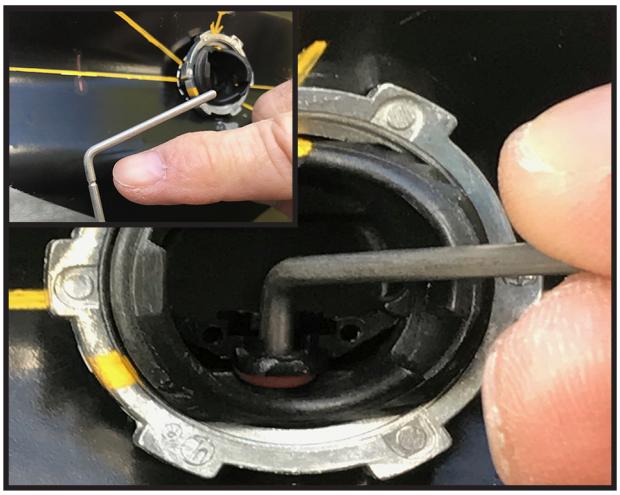

Figure 2c

INSTALLATION INSTRUCTIONS: Cont'd

3. Install Indicator

a. Place foam gasket onto the back of the indicator body and position within retainer ledges built into indicator body. **See Figure 3a**

Figure 3a

b. Carefully insert the exposed tip of the connecting rod into the white bell end on the back of the indicator body.
See Figure 3b

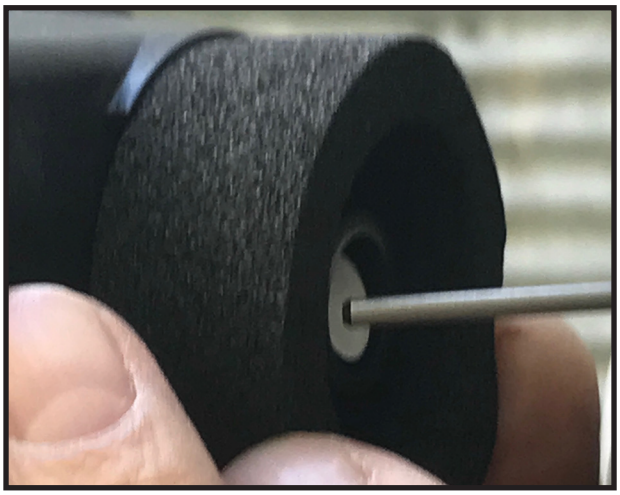

Figure 3b

c. Align pegs on indicator body with the slots of the activator. (See alignment markings on locator) Push straight in until it bottoms out. Now turn counterclockwise to snap/lock into place.
See Figure 3c

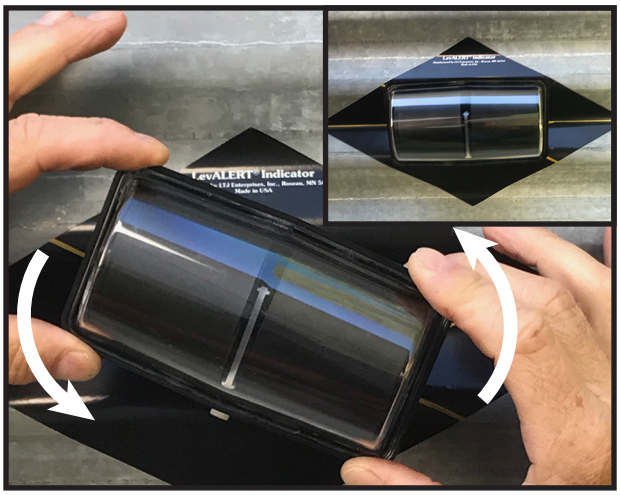

Figure 3c

REMOVAL PROCEDURE:

IMPORTANT:

DO NOT *remove activator if granular material is at or above the level of the activator.*

1. Remove indicator body from activator by turning indicator body clockwise then pull straight outwards to remove.

2. Firmly grasp connecting rod and pull upward to remove connecting rod from activator.

3. Insert installation plug into activator by pushing straight in then turning counterclockwise until it stops.

4. Remove activator nut and allow activator to fall toward the inside of bin.

5. Use a needle nose plier to grasp the end of the activator arm and rotate activator in continuous motion while gently feeding unit out through hole.

TROUBLESHOOTING:

1. Color tube is showing a yellow color even when bin is empty.

a. High moisture or coated granular materials can cake and stick to the bin wall. Visually check inside bin to see if granular material has stuck(caked) onto the bin wall against the activator.

CAUTION ***GRAIN TRAPPING HAZARD!!***

Always use proper safety equipment such as a climbers harness secured to an adequate anchor point to prevent accidental falls and grain entrapment.

b. If granular materials do not appear to be causing improper activator operation then tighten the return spring tension by turning the thumbscrew in a clockwise direction until color tube shows a completely black color.

2. Color tube not rotating a full 180° to yellow color while detecting granular material at installed height.

a. Granular material you are storing is not in the weight range for the width of the activator bar. *See Specifications/Requirements section on page 2.*

b. Reduce return spring tension by turning the thumbscrew counterclockwise. Check activation by filling the bin to the level of the activator again.