

LRC™ **Loaded Round Counter™** By UniqueTek, Inc.

The Loaded Round Counter™ does just what its name suggests. It counts the number of cartridges that have been loaded on your press. The Loaded Round Counter™ senses cartridges at the crimp die, so only completed cartridges are counted ... not just ram cycles.

Components:

The Loaded Round Counter™ consists of four components; the Counter/Display Module, the Sensor Module and two Sensor Rods. The short Sensor Rod is for rifle cartridges and the long Sensor Rod is for pistol cartridges. The LRC is powered by a 5VDC Long Life Lithium Battery that is contained inside the Counter/Display Module. The battery is rated for 10 years and is not replaceable. Do not attempt to remove or replace the battery.



Preparing for Installation

Installation is simple and can be done in just a few minutes. However, it is recommended that you read through this entire document prior to installation. You may want to refer to the Instruction Manual for your press regarding the parts mentioned below and their location on your press. If you do not have an Instruction manual, it can be downloaded from the Dillon Precision web site.

What Crimp Dies Will the LRC Work On?

The LRC Sensor Module will mount on all Dillon crimp dies, and crimp dies from most other die manufacturers, as long as the die body is hollow so that the Sensor Rod has room to hang down into the die body. The Sensor Rods are 3/16" diameter, so the hole through the Crimp Die must be slightly larger than 3/16" to allow free movement of the Sensor Rod. Most Crimp Dies in calibers .223 and larger will work.

Two examples of dies that will not work with the LRC are given below.

- ❖ LEE Carbide Factory Crimp Die: The LEE Carbide Factory Crimp Die has an adjustment knob on top. However, the adjustment knob can be modified to make it work with the LRC. Instructions for this modification will be posted on the LRC web page.
- ❖ Redding Micro-Adjustable Taper Crimp Dies: The LRC will fit on Redding Micro-Adjustable Taper Crimp Dies but the LRC Sensor Rod will be too short. Longer rods will be available in the future.

What if I don't use a Crimp Die?

If you do not crimp, or if you use a combined Seat/Crimp Die, it is still possible to use the LRC.

- 1) Install an additional crimp die but back it out one full turn (0.071") so that it does not crimp the cartridge.
- 2) Install a Dillon Powder Die. Due to the thin wall of the Dillon Powder Die, there isn't much steel for the magnetic base of the Sensor Module to grip. Glue a 5/16" Steel Flat Washer to the top of the powder die to give the Sensor Module magnetic base more surface to grip.

Will the LRC Change My Bullet Seating Depth?

The LRC will not change your bullet seating depth. The Pistol Sensor Rod and Rifle Sensor Rod weigh only 0.14oz (4.0g) and 0.16oz (5.0g) respectively, and do not apply enough force to the tip of the bullet to effect bullet seating depth ... even if you use neck tension only and do not crimp.

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Installation

Installation is a simple 3-step process and can be done in just a few minutes.

1) Mount the Counter/Display, 2) Mount the Sensor, 3) Install a Sensor Rod.

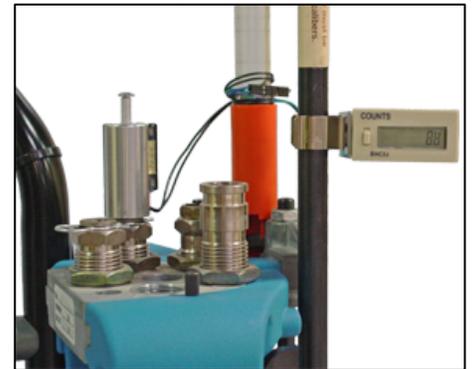
Step 1: Mount the Counter/Display Module

Attach the Counter/Display Module to the Magazine Shield tube of the Primer System Assembly using the spring clip on the left side of the Counter/Display Module. In the photos at right, the Powder Measure has been removed for visual clarity.

RL 550B Press: The RL 550B Primer System Assembly is attached to the press frame, so it does not move during press operation. Therefore, the Counter/Display Module can be mounted almost anywhere along the length of the Magazine Shield tube. We recommend mounting the Counter/Display Module approximately 6" above the top of the press frame to keep it clear of the operating handle. After the Sensor Module is installed and connected, any excess wire can be wrapped loosely around the Magazine Shield tube. (Note: The Powder Measure was removed for photographic clarity.)



XL 650 Press: Since the XL 650 Primer System Assembly is attached to the Platform Assembly, it moves up and down each cycle of the press. The Counter/Display Module must be mounted such that the wires will not be pulled tight when the press ram is raised. We recommend mounting the Counter/Display Module approximately 2" to 3" above the top of the press frame when the ram is in the down position. After the Sensor Module is installed and connected, any excess wire can be wrapped loosely around the Case Feed Tube. This will also act as a strain relief during press operation. (Note: The Powder Measure was removed for photographic clarity.)



Super 1050 Press: The Super 1050 Primer System Assembly is attached to the Lower Machine Assembly, so it does not move during press operation. However the Toolhead does move during press operation. The Counter/Display Module must be mounted such that the wires will not be pulled tight when the press ram is lowered. We recommend mounting the Counter/Display Module at least 1" above the top of the toolhead when the ram is in the up position. After the Sensor Module is installed and connected, any excess wire can be wrapped loosely around the Magazine Shield tube. (Note: The Case Feed Tube was removed for photographic clarity.)



Step 2: Mount the Sensor Module

Mount the Sensor Module on top of the crimp die. The Sensor Module attaches magnetically. Make sure that it is centered on the die.

Connect the wires from the Sensor Module to the wires coming from the Counter/Display Module. It does not matter which way the wires are connected as the polarity is not relevant. Route the wires such that they are out of the way. NOTE: On an XL 650, RL 1050 or Super 1050 press, make sure there is enough slack so the wires are not strained during press operation.

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Step 3: Install a Sensor Rod:

Insert a Sensor Rod into the top of the Sensor Module. The Long Sensor Rod is for pistol cartridges and the Short Sensor Rod is for rifle cartridges. The tip of the Sensor Rod will pass completely through the Sensor Module body and hang down inside the crimp die body. Make sure that the Sensor Module is centered on the crimp die so that the Sensor Rod will move freely.

Important: To prevent excessive battery drain, a Sensor Rod must be installed in the Sensor Module or the Sensor Module wires disconnected from the Counter Module. The long life lithium battery is soldered inside the Counter/Display Module and cannot be replaced. Under normal operation, the battery should last 10 years or more.

Adjustment

No adjustments are needed. The Sensor Rod will raise a different distance depending on the cartridge being loaded. The distance that the Sensor Rod moves is irrelevant as long as it moves far enough to trigger a count ... about 3/16". Cartridges shorter than 9mm may not be counted.

Clearing the Count

To reset the count to zero, press the reset button located immediately to the left of the LCD display. To prevent accidental clearing of the count, sliding it down locks the reset button.

Specifications

Maximum Count: 999,999

Maximum Count Rate: 1 Count Per Second

Power: 5VDC Long Life Lithium Battery (not replaceable)

Battery Life: 10+ Year

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Can I use the LRC with my Dillon Case Trimmer to Count Brass?

The LRC Sensor Rod is only 3/16" diameter ... small enough to slip inside even a .223/5.56 case mouth ... thus preventing the LRC from counting. But, with a few simple modifications, you can make it work.

- 1) Install a Dillon Powder Die in the last die station. Due to the thin wall of the Dillon Powder Die, there isn't much steel for the magnetic base of the LRC Sensor Module to grip. Glue a 5/16" USS Steel Flat Washer on top of the powder die to give the Sensor Module's magnetic base more surface to grip. Super Glue works just fine.
- 2) The bottom end of the Sensor Rod is threaded #6-32. Install a #6-32x1/4" Truss Head Machine Screw to enlarge the diameter.

Note: The Sensor Rod may need to be installed in the LRC Sensor Module before installing this screw. †



For .223/5.56: Install a #6-32x1/4" Truss Head Machine Screw and secure it with Blue Loctite. The head diameter of a #6-32x1/4" Truss Head Machine Screw is approximately .31" so it will work for any cartridge with a smaller neck diameter.

For .308 And Larger: The head diameter of a #6-32x1/4" Truss Head Machine Screw may be too small for .308 as there is a bit of variation between manufacturers. In this case simply add a #6 SAE Flat Washer (OD = 3/8") under the head of the screw. † There is plenty of room inside the Powder Die to accommodate this washer.

† The #6 washer must fit through the 5/16" flat washer mounted on the Powder Die. According to the standards for USS and SAE flat washers, the OD of a #6 washer the same as the ID of a 5/16" washer. However the tolerance that flat washers are punched is pretty sloppy ... so the #6 washer just might pass through the 5/16" washer. Even if I wasn't currently loading .308, I'd plan ahead and buy both washers while at the hardware store so I could "cherry pick" a pair of washers that worked. If all else fails, you can enlarge the ID of the 5/16" washer to make it fit.

Disclaimer: UniqueTek, Inc. is not liable for damages or personal injury that may be incurred as a result of using this product in an improper way or on a reloading press that has been improperly maintained or operated. It is your responsibility to ensure that your reloading equipment is properly assembled, is maintained in proper working condition, and is used according to the manufacturer's instructions and safe reloading practices.

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