

# **Dillon Precision Bullet Feeder**

**Quick Start Guide/User Manual**



Stock #91163  
Version 3  
April 2025

**Please Read the Entire Manual Before Using Your Bullet Feeder**

# Assembling and Installing Your New Dillon Bullet Feeder

Congratulations on your purchase of the Dillon Bullet Feeder! This manual will help you assemble and install your new Bullet Feeder on your XL750/650 or RL1100/ Super 1050 reloading machine.

After opening the package, first familiarize yourself with the components of the Bullet Feeder, including the Base Assembly, Bowl, Center Plates (long or short bullet), Tuning Blocks (comes installed to the Center Plate), and Mounting Bracket.

The Caliber Conversion for your Bullet Feeder includes caliber-specific parts, including: Bullet Disk, Bullet Chute, Bullet Switch, Conduit Springs, and the Bullet Dropper Die.

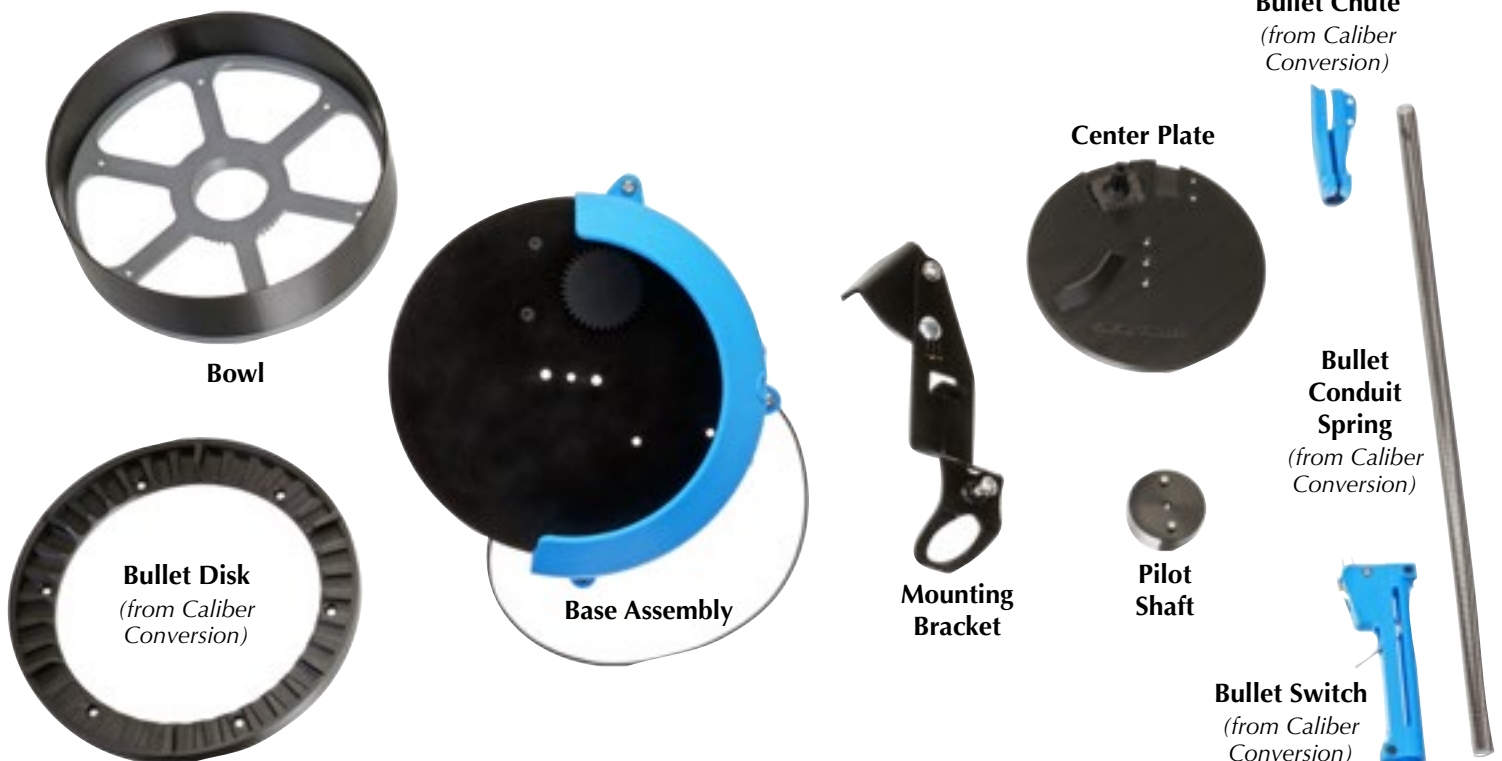
Also, review the assembly drawings on pages 9 through 11, which will help you to understand the differences between components for pistol and rifle calibers, as well as short and long bullets.

## Preparation and Setup

Lay out all the parts from the setup kit, which will come with the appropriate Mount Tube for your reloading machine (see page 10). Identify the caliber-specific components from the Caliber Conversion Kit, such as Bullet Drop Disks, Bullet Chutes, Switch Housings, Bullet Conduit Springs, and Bullet Dropper Dies (see page 9).



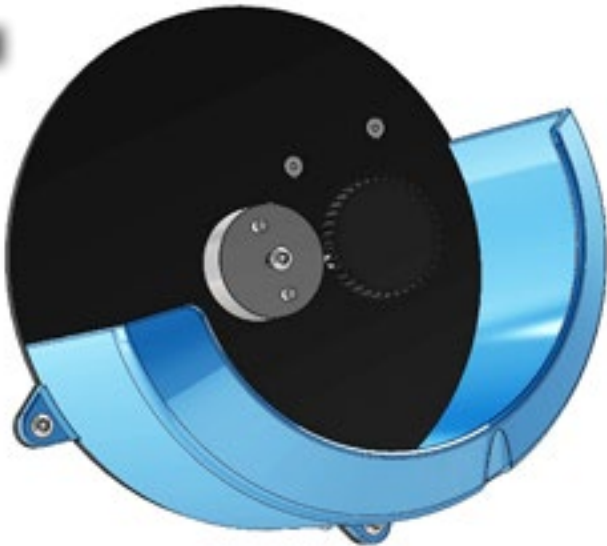
1. BF 650/750 Mount Assembly (Pictured) or BF 1050/1100 Mount Assembly (See Page 10)
2. Motor Assembly (Shown w/o Wiring)
3. Bullet Chutes Assembly
4. Bowl Assembly Short Bullet (Shown in 9mm) or Bowl Assembly Long Bullet (Not Pictured)
5. Chutes-Dropper Die Assembly
6. Switch Assembly
7. Bullet Dropper Die Assembly Die Lock Ring (Not Pictured)



Identify the parts for your Bullet Feeder prior to assembling. The parts pictured above are for a 9mm/.355/.357 Bullet Feeder, but yours will look similar regardless of caliber. *\*Please note that the colors of component parts may vary.*

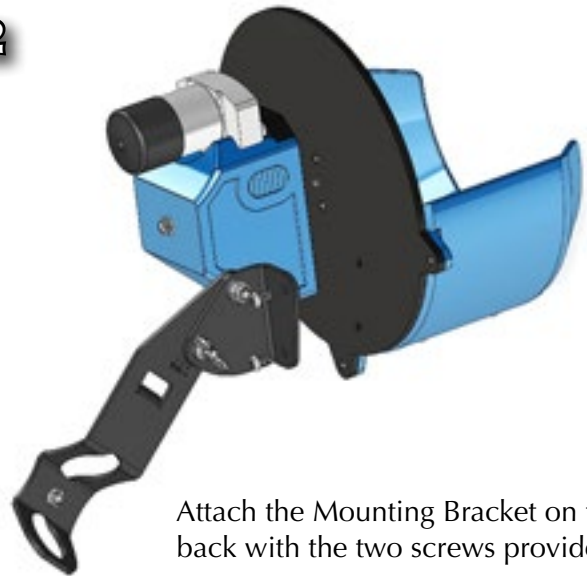
# Assembling the Bullet Feeder

1



Start with the Base Assembly.

2



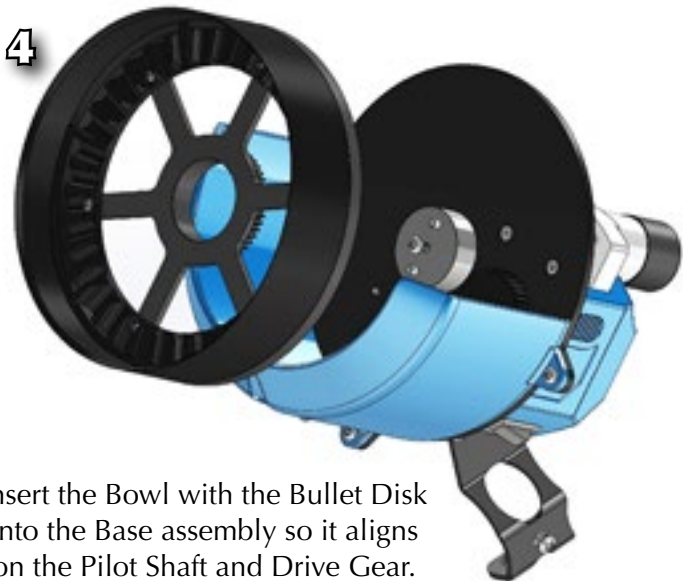
Attach the Mounting Bracket on the back with the two screws provided.

3

The Bullet Disk goes into the Bowl, attached with the six 6-32 x 1/4 inch screws from the hardware kit.



4



Insert the Bowl with the Bullet Disk into the Base assembly so it aligns on the Pilot Shaft and Drive Gear.

5



Select the proper Center Plate and install the appropriate size Bullet Chute. (See page 9.)

6



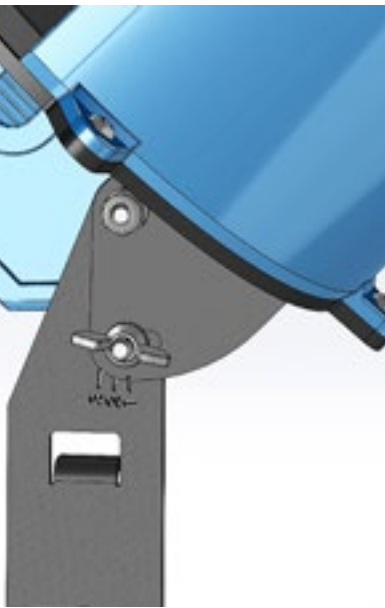
Place the Center Plate into the Base Assembly as pictured. Put the screw through the center hole and screw it into the backplate.



7

The bowl angle is adjustable. The best starting point is right in the middle.

**NOTE: It's best to set the angle of the mounting bracket BEFORE you adjust the Bullet Dropper Die** (See page 6).



8



Attach the Bullet Conduit Spring (See page 9) to the Bullet Chute. Twist the spring clockwise in place to make sure it's centered and just snug the screw.

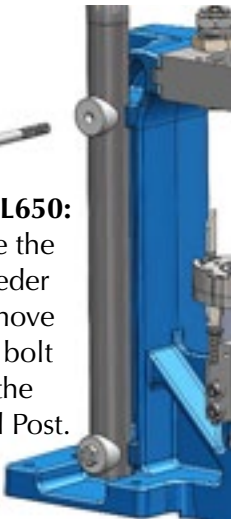
Do not over tighten.

## Attaching the Mount Tube to Your Reloader

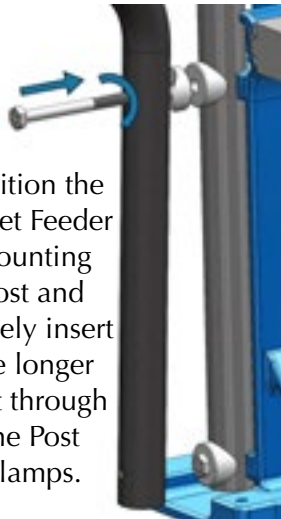
9

### XL750/XL650:

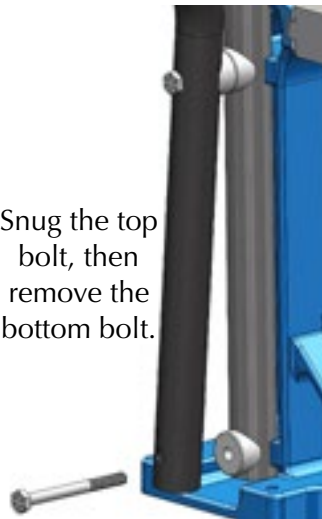
Remove the Casefeeder and remove the top bolt from the Casefeed Post.



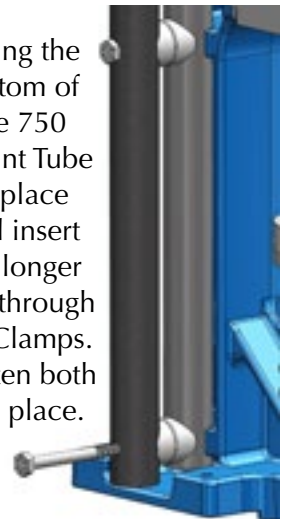
Position the Bullet Feeder Mounting post and loosely insert the longer bolt through the Post Clamps.



Snug the top bolt, then remove the bottom bolt.



Swing the bottom of the 750 Mount Tube in place and insert the longer bolt through the Clamps. Tighten both into place.



### 9 (alternate)



**RL1100/Super 1050:** Use the existing bolts on the side of the Casefeed Post. You don't have to take them all the way out, just back them out to give enough room to attach the two-piece 1100 Mount Tube Assembly.

10

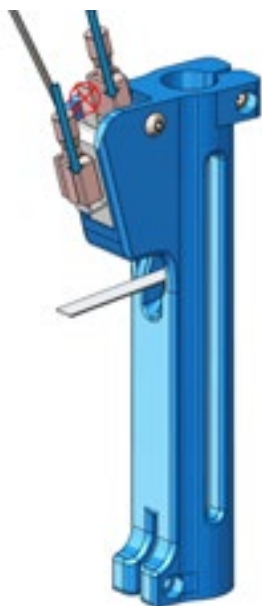
Place the Bullet Feeder on top of the Mount Tube. Leave the clamp screw loose for now, because you may need to adjust it up or down slightly to get exactly the right angle on the Bullet Conduit Spring.



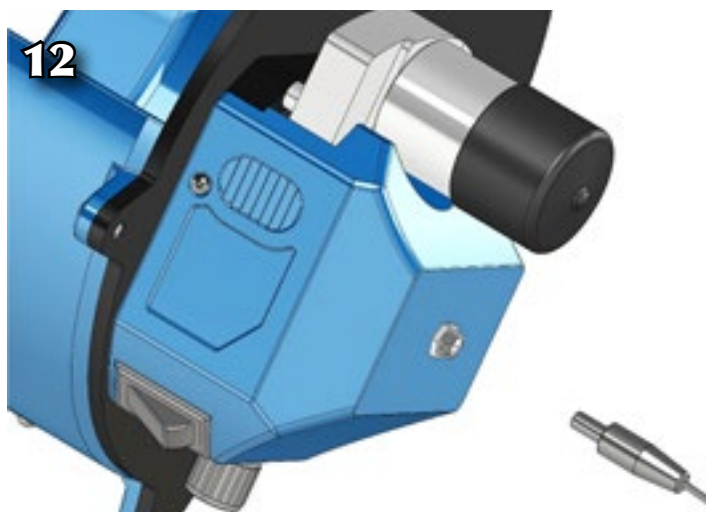
**11**

Insert the Bullet Conduit Spring by twisting clockwise into the Bullet Switch and tighten the clamp – do not over tighten as it will damage these parts.

There are three terminals available on the switch. Connect the wires from the Bullet Feeder Motor to the two terminals on the outside of the switch and ignore the one in the middle. It will not matter which wire goes on which terminal.



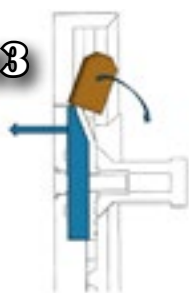
**12**



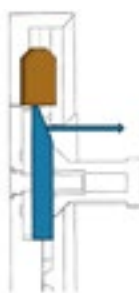
Attach the appropriate wall plug insert and plug the Power Supply into your Bullet Feeder.

## Adjusting the Tuning Block

**13**



To adjust the Tuning Block, temporarily remove the Bullet Conduit Spring and start with the Tuning Nut turned down clockwise as far as it will go.



Gradually back off the Tuning Nut until only nose-down bullets drop off the Tuning Block and base-down bullets drop through the Bullet Chute.

## Exchange Your Powder Funnel (if Applicable)

If your Bullet Feeder comes with a Powder Funnel, you'll need to replace the one in your Powder Measure. The new funnel will apply an appropriate amount of flare to allow bullets to rest in the case mouth before being seated in the Seating Die. You'll need to readjust your Powder Measure according to the directions in your reloading machine manual so the bullet just sits inside the case mouth. Some rifle caliber conversions require you to use only boat tail bullets.

**14**





# Setting Up and Adjusting the Bullet Dropper Die



## Components Needed:

- Bullet Dropper Outer Sleeve
- Caliber Specific Inner Sleeve
- Bullet Dropper Return Spring
- Bullet Dropper Spring Cap
- Die Lock Ring (*Not Pictured*)
- Ball Bearings (2)
- Spring Clip (for some calibers)

## Supplies Required:

- Sized and flared case
- Bullets

## Setup:

- 1. Position Bullet:** Place a bullet into the case on your workbench.
- 2. Fit Inner Sleeve:** Slide the correct Inner Sleeve over the bullet until it touches the case edge.
- 3. Select Bearing Holes:** Use the holes in the Inner Sleeve to place bearings near the bullet's nose but not past its tip. (See Fig. 1, 2, and 3 Right)
- 4. Assemble Sleeve:** Insert bearings into the chosen holes, then slide the Inner Sleeve into the Outer Sleeve from the internally threaded end.
- 5. Install Spring and Cap:** Slide the Return Spring over the Inner Sleeve, followed by the Spring Cap, and screw the cap into the Outer Sleeve.
- 6. Add Spring Clip** (if applicable): For sleeves with grooves, insert the clip into the groove matching the bearing holes used.
- 7. Function Test:** Insert at least two bullets into the die base-first. Lower the die over a case to check if one bullet drops while the other is retained.

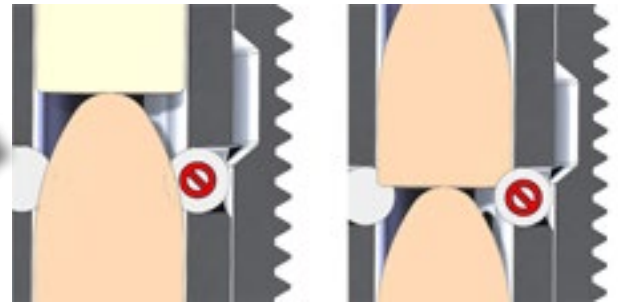
(NOTE:  
Die Lock  
Ring Not  
Pictured.)

**Fig. 1**

**Right:**  
Look through  
the holes in  
the Inner  
Sleeve to find  
the correct  
pair for your  
bullet shape.

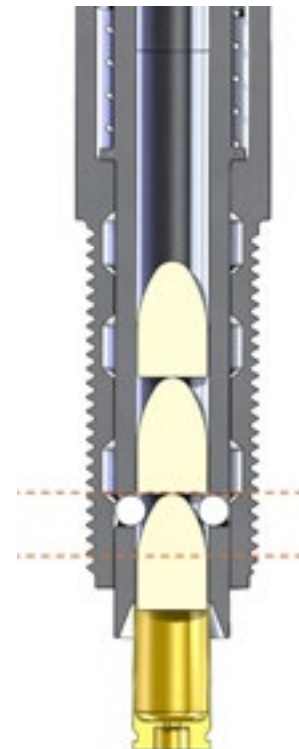


**Fig. 2**



**Fig. 3**

**Above, Right:**  
Choose holes  
where Ball  
Bearings will  
sit against the  
bullet's nose,  
not past its tip.



# Installing the Dropper Die Assembly

## XL750/XL650:

The Dropper Die assembly goes into station three on the XL750/XL650, right after the Powder Measure.



## RL1100/Super 1050:

The Dropper Die assembly goes into station six on the 1100/1050, right after the Powder Measure.



## Dropper Die Installation

- 1. Place Case in Press:** Put the setup case in the reloader's shellplate under the dropper station.
- 2. Load Bullets:** Insert bullets into the die and ensure they don't fall out when held by the Outer Sleeve.
- 3. Thread Die:** With the reloader's handle fully actuated, slowly thread the Dropper Die into the toolhead until it touches the case, allowing one bullet to drop.
- 4. Secure Die:** Tighten another half-turn and lock with the Die Lock Ring.
- 5. Final Test:** Operate the reloader to ensure one bullet drops into the case while the next is held back in the die.



## Attach the Bullet Switch to the Dropper Die

Once you're satisfied with the Dropper Die adjustment, you may now attach the Bullet Switch to the Dropper Die using the screw provided. Do not over tighten, it just needs to be snug. Over tightening will damage the parts.



### TROUBLESHOOTING

**Problem:** Bullet is dropped, but then lifted off the case when the reloader retracts.

**Cause:** Ball Bearings in too low a position. Choose a higher pair of holes up the Inner Sleeve.

**Problem:** Two or more Bullets are dropped when the reloader retracts.

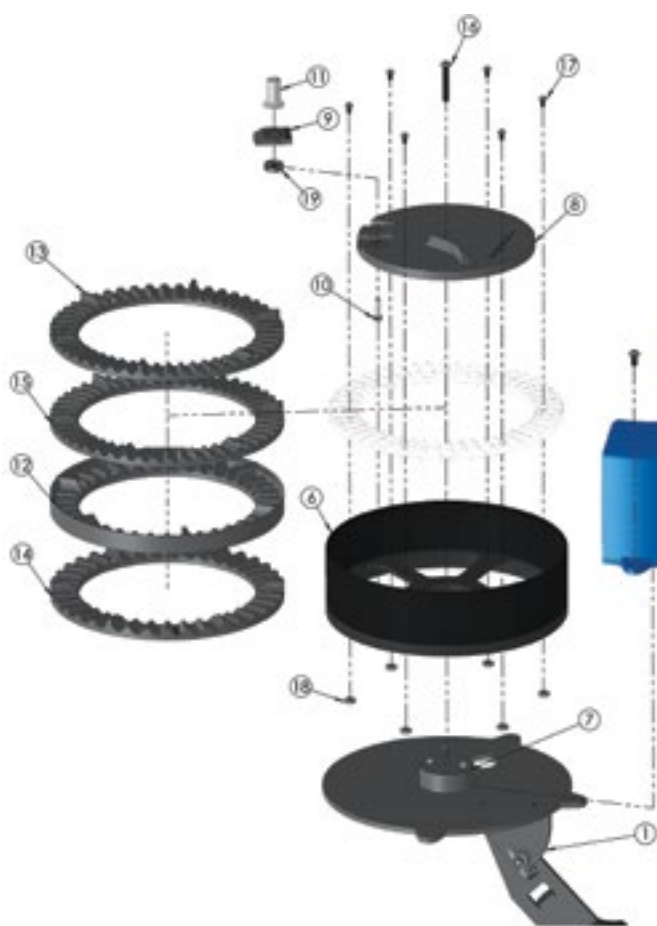
**Cause:** Ball Bearings are positioned too high. Choose a lower pair of holes on the Inner Sleeve.

**Problem:** No bullet drops at all when the reloader is actuated.

**Cause:** Die Body may not be threaded deeply enough into the Toolhead to trigger the Inner Sleeve with the case. Fully actuate the reloader with a case under the Dropper Die, insert a bullet into the Dropper Die and then continue to thread the Die towards the case until the "click" is heard of the bullet dropping to the case.

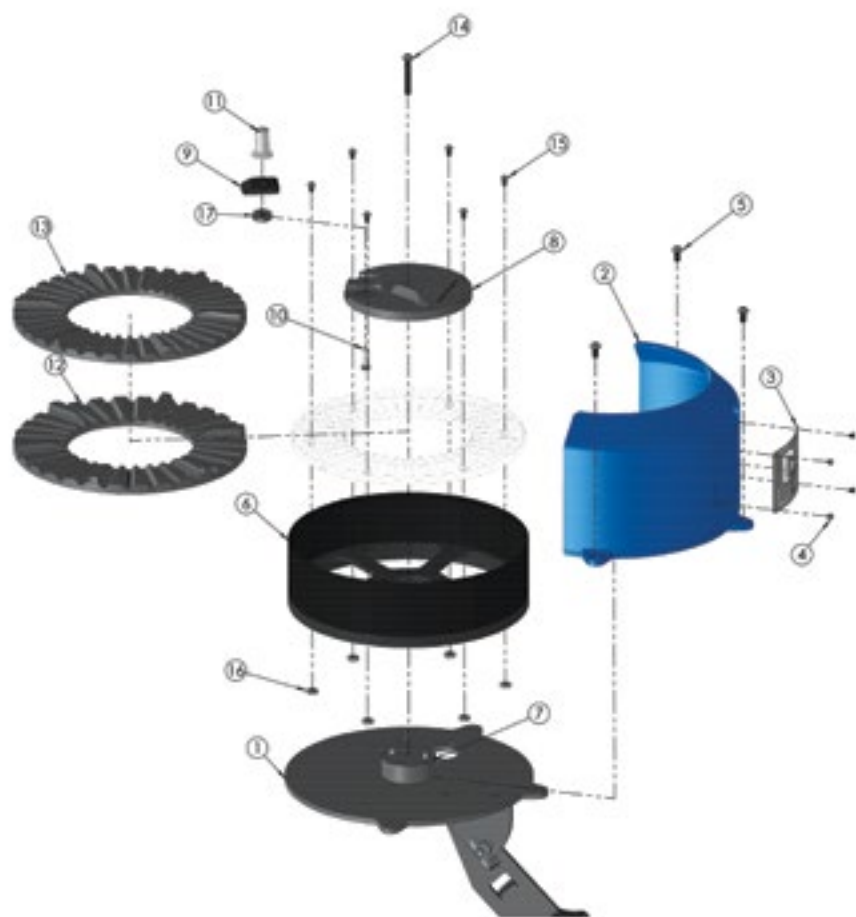
**Problem:** When the reloader is actuated, the Dropper Die jams.

**Cause:** Die body is threaded too far down. Back the Dropper Die out, move the reloader to the fully actuated position, insert a Bullet into the Dropper and thread the Die toward the case again, listening for the "click" of the bullet falling onto the case.



## Bowl Assembly, Short

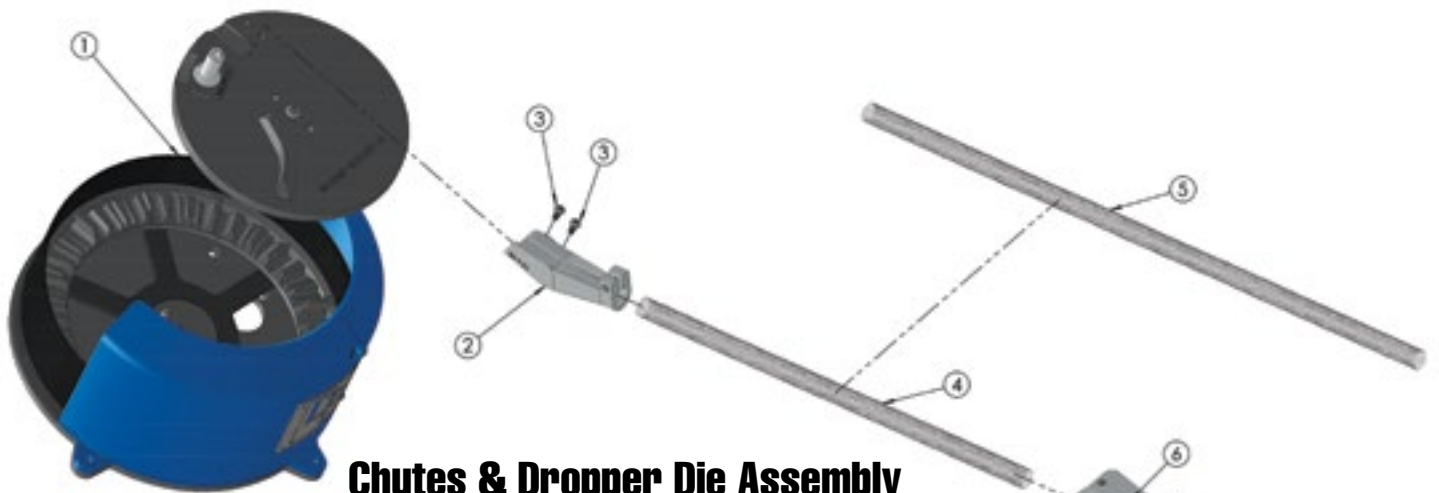
1. BF Mount Assembly	91122	91121
2. BF Shroud	91018	
3. Logo Plate Dillon Icon	91060	
4. (4 ea.) 4-40x.125 BHCS SS	91077	
5. (5 ea.) 10-32x.375 BHCS SS	91068	
Motor (Not Pictured)	62501	
6. Bowl Assembly	91142	
7. Pilot Shaft	91040	
8. Center Plate, Short Bullet	91008	
9. Tuning Block, Short Bullet	91016	
10. 8-32 Knurled Stud	91041	
11. Tuning Knob	91017	
12. Bullet Disk, 9mm-357	91013	
13. Bullet Disk, 22-25, Short	91010	
14. Bullet Disk, 40-45	91014	
15. Bullet Disk, 26-30, Short	91012	
16. 10-32x1.250 BCHS SS	91073	
17. (6 ea.) 6-32x.250 BHCS SS	91074	
18. (6 ea.) 6-32 Hex Nut, Zinc	18946	
19. Tuning Block Spring	91059	



## Bowl Assembly, Long

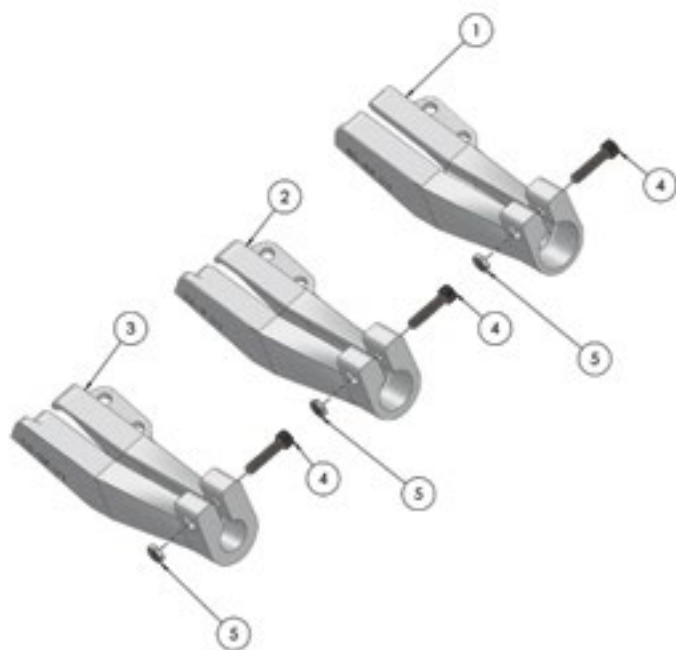
1. BF Mount Assembly	91122	91121
2. BF Shroud	91018	
3. Logo Plate Dillon Icon	91060	
4. (4 ea.) 4-40x.125 BHCS SS	91077	
5. (5 ea.) 10-32x.375 BHCS SS	91068	
Motor (Not Pictured)	62501	
6. Bowl Assembly	91142	
7. Pilot Shaft	91040	
8. Center Plate, Long Bullet	91007	
9. Tuning Block, Long Bullet	91015	
10. 8-32 Knurled Stud	91041	
11. Tuning Knob	91017	
12. Bullet Disk, 26-30, Long	91011	
13. Bullet Disk, 22-25, Long	91009	
14. 10-32x1.250 BCHS SS	91073	
15. (6 ea.) 6-32x.250 BHCS SS	91074	
16. (6 ea.) 6-32 Hex Nut, Zinc	18946	
17. Tuning Block Spring	91059	





## Chutes & Dropper Die Assembly

- |                                    |       |
|------------------------------------|-------|
| 1. Bowl Assembly                   | 91142 |
| 2. Bullet Chute Assy. 26-9mm Cal.  | 91002 |
| 3. (2 ea.) 6-32x.375 BHCS SS       | 91075 |
| 4. 26-9mm Conduit Spring 650/750   | 91049 |
| 5. 26-9mm Conduit Spring 1050/1100 | 91052 |
| 6. 26-9mm Switch Assembly          | 91005 |
| 7. Dropper Die 9mm-.357            | 91103 |
| Die Lock Ring (Not Pictured)       | 14067 |



### Bullet Chute Assembly, 22-25 Cal. (#91130)

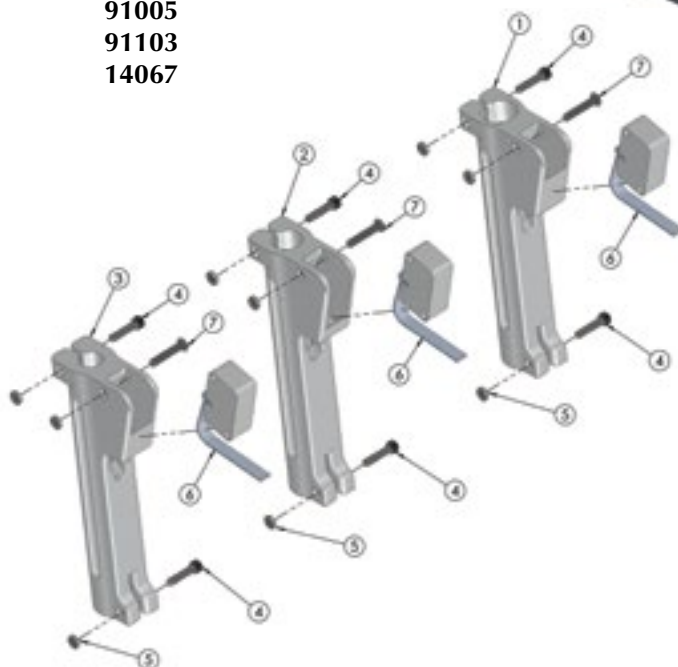
- |                           |       |
|---------------------------|-------|
| 3. Bullet Chute, 22-25    | 91001 |
| 4. 4-40x.500 SHCS SS      | 91076 |
| 5. 4-40 Zinc Nut Red. Hex | 91078 |

### Bullet Chute Assy., 26-9mm Cal. (#91131)

- |                           |       |
|---------------------------|-------|
| 2. Bullet Chute, 26-9mm   | 91002 |
| 4. 4-40x.500 SHCS SS      | 91076 |
| 5. 4-40 Zinc Nut Red. Hex | 91078 |

### Bullet Chute Assembly, 40-45 Cal. (#91132)

- |                           |       |
|---------------------------|-------|
| 1. Bullet Chute, 40-45    | 91003 |
| 4. 4-40x.500 SHCS SS      | 91076 |
| 5. 4-40 Zinc Nut Red. Hex | 91078 |



### Switch Assembly, 22-25 Cal. (#91133)

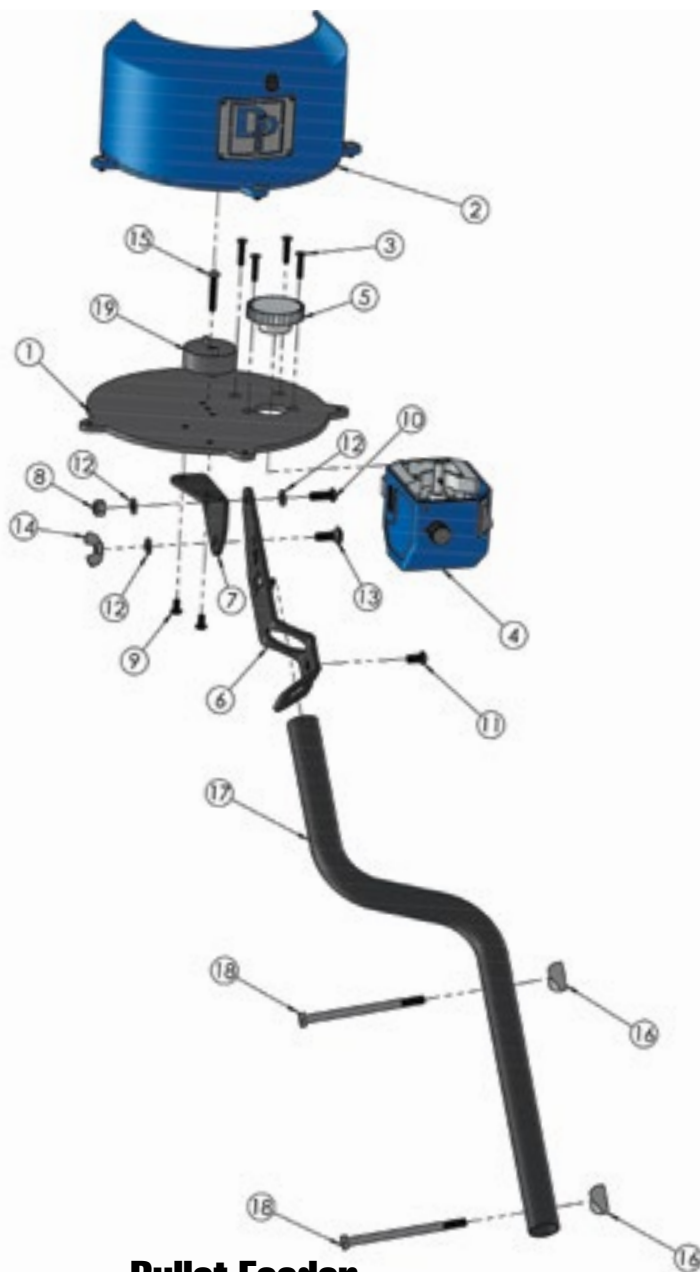
- |                                   |       |
|-----------------------------------|-------|
| 3. Switch Housing                 | 91004 |
| 4. (2 ea.) 4-40x.500 SHCS SS      | 91076 |
| 5. (3 ea.) 4-40 Zinc Nut Red. Hex | 91078 |
| 6. DBF Microswitch                | 91087 |
| 7. 4-40x5/8 BCHS SS               | 91085 |

### Switch Assembly, 26-9mm Cal. (#91134)

- |                                   |       |
|-----------------------------------|-------|
| 2. Switch Housing                 | 91005 |
| 4. (2 ea.) 4-40x.500 SHCS SS      | 91076 |
| 5. (3 ea.) 4-40 Zinc Nut Red. Hex | 91078 |
| 6. DBF Microswitch                | 91087 |
| 7. 4-40x5/8 BCHS SS               | 91085 |

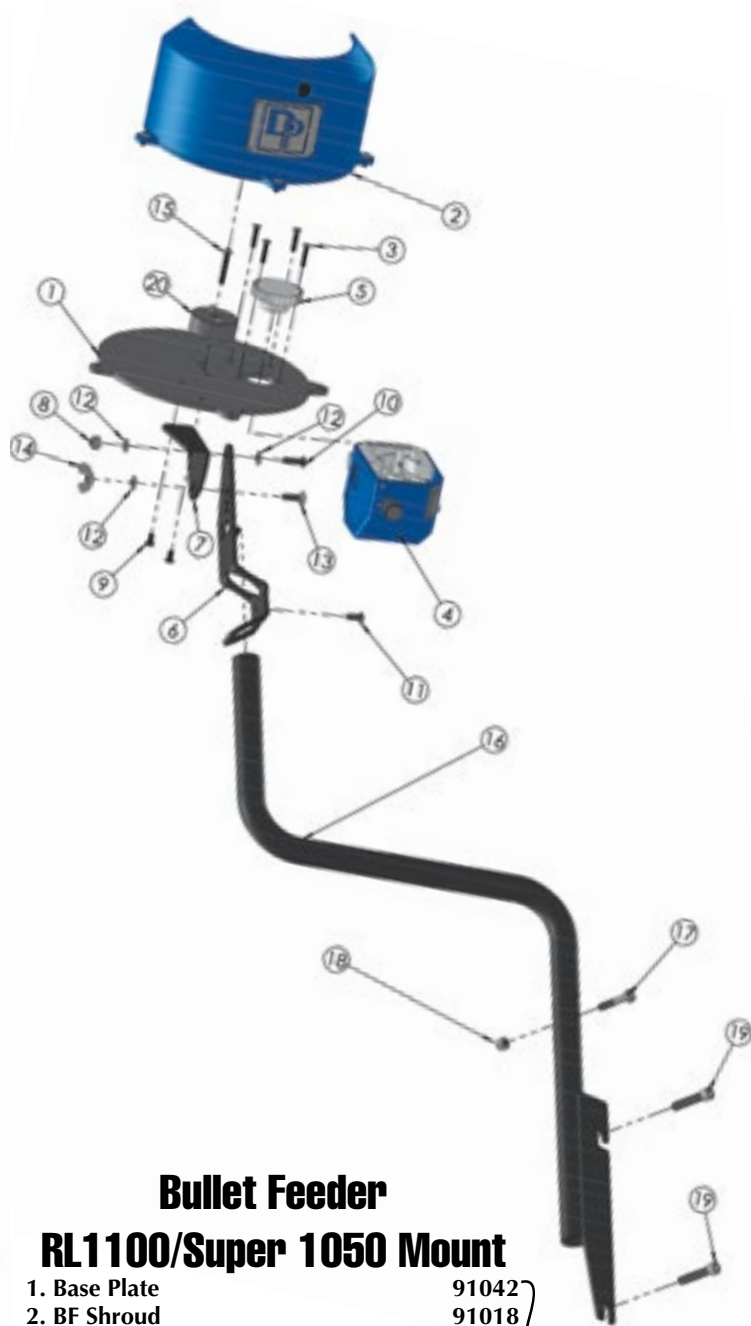
### Switch Assembly, 40-45 Cal. (#91135)

- |                                   |       |
|-----------------------------------|-------|
| 1. Switch Housing                 | 91006 |
| 4. (2 ea.) 4-40x.500 SHCS SS      | 91076 |
| 5. (3 ea.) 4-40 Zinc Nut Red. Hex | 91078 |
| 6. DBF Microswitch                | 91087 |
| 7. 4-40x5/8 BCHS SS               | 91085 |



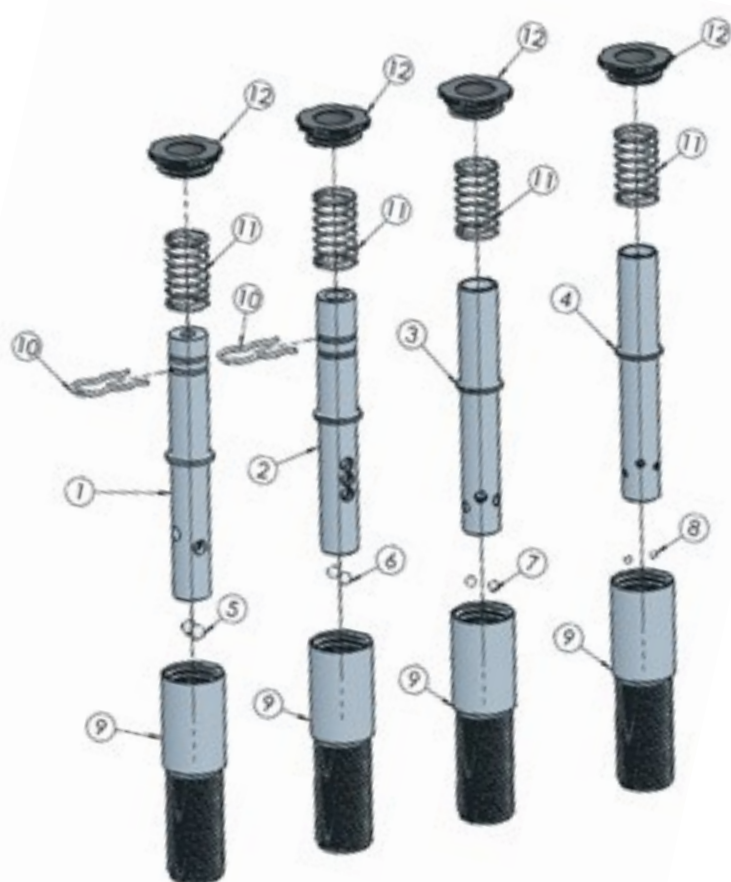
### Bullet Feeder XL750/650 Mount

1. Base Plate	91042	}	91121
2. BF Shroud	91018		
3. (4 ea.) M4x22 FHS Blk Oxide	91081		
4. Motor Assy. (Shown w/o Wiring)	62501		
5. Drive Gear	91022	}	91122
6. Mount Bracket 1	91043		
7. Mount Bracket 2	91044		
8. 250-20 Lock Nut, Zinc	85098		
9. (2 ea.) 10-32x.375 BHCS SS	91068	}	91122
10. 250-20x.750 BHCS SS	91069		
11. 250-20x.500 BHCS SS	91072		
12. (3 ea.) 250 Flat Washer SS NAS 1159	91084		
13. .250-20x.750 Zinc Carriage Bolt	91070	}	91122
14. .250-20 Zinc Wing Nut	91071		
15. 10-32x1.250 BHCS SS	91073		
16. (2 ea.) CF Post Clamp	13613		
17. 750 Mount Tube	91046	}	91122
18. (2 ea.) .250-20x4 HHCS, Zinc	91083		
19. Pilot Shaft	91040		



### Bullet Feeder RL1100/Super 1050 Mount

1. Base Plate	91042	}	91121
2. BF Shroud	91018		
3. (4 ea.) M4x22 FHS Blk Oxide	91081		
4. Motor Assy. (Shown w/o Wiring)	62501		
5. Drive Gear	91022	}	91122
6. Mount Bracket 1	91043		
7. Mount Bracket 2	91044		
8. 250-20 Lock Nut, Zinc	85098		
9. (2 ea.) 10-32x.375 BHCS SS	91068	}	91122
10. 250-20x.750 BHCS SS	91069		
11. 250-20x.500 BHCS SS	91072		
12. (3 ea.) 250 Flat Washer SS NAS 1159	91084		
13. .250-20x.750 Zinc Carriage Bolt	91070	}	91122
14. .250-20 Zinc Wing Nut	91071		
15. 10-32x1.250 BHCS SS	91073		
16. 1100 Mount Tube Assembly	91047		
(The 1100 Mount Tube comes in two pieces.)			
17. .250-20x1.375 HHCS, Zinc	91086	}	91122
18. .250-20 Lock Nut, Zinc	85098		
19. (2 ea.) 312x1500 SHCS	13205	}	91122
(From RL1100/Super 1050 Assembly)			
20. Pilot Shaft	91040		



### Dropper Die, 22 Cal. (Assy. #91101)

1. Inner Sleeve 22	91039
5. (2 ea.) .197" Ball 5mm	91055
9. Outer Sleeve	91030
Die Lock Ring (Not Pictured)	14067
10. Die Body Clip	14445
11. Internal Dropper Die Spring	91054
12. Spring Cap	91089

### Dropper Die, 30 Cal. (Assy. #91102)

2. Inner Sleeve 30	91035
6. (2 ea.) .177" Ball 4.5mm	91088
9. Outer Sleeve	91030
Die Lock Ring (Not Pictured)	14067
10. Die Body Clip	14445
11. Internal Dropper Die Spring	91054
12. Spring Cap	91089

### Dropper Die, 9mm (Assy. #91103)

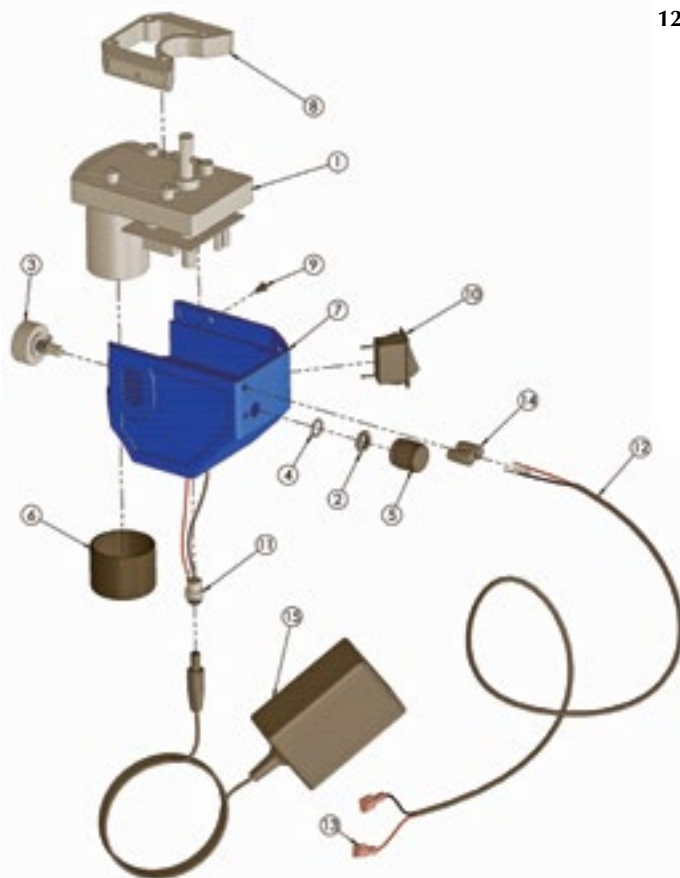
2. Inner Sleeve 9/357	91036
6. (2 ea.) .156" Ball 5/32"	91056
9. Outer Sleeve	91030
Die Lock Ring (Not Pictured)	14067
11. Internal Dropper Die Spring	91054
12. Spring Cap	91089

### Dropper Die, 40/10mm (Assy. #91104)

2. Inner Sleeve 40/10	91038
6. (2 ea.) .125" Ball 1/8"	91057
9. Outer Sleeve	91030
Die Lock Ring (Not Pictured)	14067
11. Internal Dropper Die Spring	91054
12. Spring Cap	91089

### Dropper Die, 45 Cal. (Assy. #91105)

2. Inner Sleeve 45	91037
6. (2 ea.) .101 Ball	91058
9. Outer Sleeve	91030
Die Lock Ring (Not Pictured)	14067
11. Internal Dropper Die Spring	91054
12. Spring Cap	91089



### Bullet Feeder Motor Assembly

1. Variable Gearbox-Motor	
2. Rheostat Nut	
3. Rheostat	
4. Rheostat Washer	
5. Knob	
6. Motor Cap	91082
7. Motor Housing	91019
8. Motor Spacer .500 Inch	91023
9. 4-40x.250 BHCS	85126
10. CF Rocker Switch	62505
11. Barrel Plug	62504
12. 2Ft 2 20 Ga. Wire Stripped Ends	91066
13. (2 ea.) 18-22 Ga. .187 Female Term.	16336
14. (2 ea.) 18-22 Ga. Wire Nut	91067
15. Triad Power Supply	62502

62501



# MANDATORY SAFETY PRECAUTIONS – PLEASE READ

## THE BASIC RISK OF RELOADING, AND OVERALL DILLON PRECISION BULLET FEEDER USAGE: DANGER!

The reloading of ammunition and the handling of reloading components used in the reloading process is inherently dangerous. Accidents and mistakes in reloading can and do occur, sometimes with disastrous results resulting in, but not limited to, loss of hearing, vision, limbs or life. These accidents can occur with novice and experienced reloaders.

### MANDATORY USER SAFETY MINIMUM REQUIREMENTS

Dillon Precision Inc. cannot guarantee the complete safety of the user of the Bullet Feeder. To minimize the user's risk, use common sense and follow these basic safety rules at a minimum.

**EYE AND EAR PROTECTION:** Never operate the Bullet Feeder without eye and ear protection.

**SMOKING/IMPAIRMENT:** Do not smoke or allow anyone to smoke in the reloading area. Do not allow open flames. Do not load if you have been drinking alcohol or are impaired in any way.

**SAFETY:** Do not remove any safety device(s) from the Bullet Feeder or modify the Bullet Feeder or associated Dillon reloading presses that may be used with the Bullet Feeder in any way.

**LEAD – CAUTION!** Most primers contain a lead compound. Be sure to have proper ventilation while handling used primers. Clean up any primer residue left behind during the case processing. Lead causes birth defects, reproductive harm and cancer. Wash your hands thoroughly after handling components or shooting.

**PRIMERS – DANGER!** Primers contain a small amount of a shock-sensitive chemical that explodes when struck by a firing pin or hammer or accidentally crushed. Never force primers. Never attempt to clear primers that are stuck in the RF 100, Primer Pickup Tubes, or the Primer Magazine Assembly. Never, under any circumstance, insert any type of rod into these tubes to attempt to push out stuck primers – PRIMERS CAN “CHAIN DETONATE.” If a primer(s) gets stuck in the Primer Filler Magazine Assembly, remove the inner tube. Flood the inner tube with

penetrating oil/WD-40, throw it away and call Dillon for a free replacement.

**BE PATIENT and OBSERVANT** – If a problem is not obvious – CALL Dillon Technical Support **800-223-4570**.

### WARRANTY

Dillon Precision Products, Inc. warrants the Dillon Precision Bullet Feeder for its lifetime except for the motor which is warrantied for one (1) year from the date of shipment against defects in material and workmanship. Dillon Precision Products, Inc. will either repair or replace any part(s) that prove defective. Replacement parts may be new or repaired parts at Dillon's choice on an exchange basis. A part(s) replaced under warranty does not restart the warranty period.

This warranty does not cover any damage to the product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair or modification. This warranty shall not apply if: (1.) the product was not used per any accompanying instructions, (2.) the product was not used for its intended function or (3.) the addition of any non-authorized equipment.

The Dillon Precision Bullet Feeder may be returned for a refund up to 30 days from the date of delivery to the original purchaser. It must be returned in the original packaging, complete with all parts as originally shipped, in good condition, to receive credit for the purchase price less the original shipping cost and a 10% restocking fee. Used, damaged, and/or missing items may be denied a return depending upon the circumstance. You will be reimbursed within 7-10 days by the same means used for the purchase after the receipt of your return. To initiate a return, contact Dillon at [support@dillonprecision.com](mailto:support@dillonprecision.com) or **800-223-4570** and request a Return Material Authorization (RMA) number.

### RELOADING LIABILITY

It is the customer/user's sole risk and responsibility in assembling, installing and using the Dillon Precision Bullet Feeder including compliance with any local, state, federal, or country laws. Dillon assumes no liability or responsibility for the risk in using the Dillon Precision Bullet Feeder.

### DISCLAIMER

The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice. Dillon Precision Inc. makes no representations or warranties with respect to this manual. Dillon Precision Inc. shall not be liable for any damages, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the use of or the inability to use the products described herein. Read this manual before using this product. Failure to follow the instructions and safety precautions in this manual can result in severe injury or death. Keep this manual in a safe location for future reference.

Copyright © 2025 by Dillon Precision, Inc. – All rights reserved. This publication is for personal use only. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, for commercial use without the prior written permission of Dillon Precision.

**Dillon Precision Products, Inc.**

**8009 E. Dillon's Way**

**Scottsdale, AZ 85260**

**480-948-8009 • 800-223-4570 • FAX 480-998-2786**

**dillonprecision.com • dillon@dillonprecision.com**