



Chipley Custom Machine Regulator Manual

V 1.0

**CCM / DPM
19641 N. Hirsch St
Anderson, Ca 96007
Phone- 530-378-3420
Sales- 1-877-412-6850
Fax- 530-378-3420**

www.chipleymachine.com

I. Table of Contents:

I.	Liability	Page 3
II.	Safety and Handling	Page 4
III.	Parts List	Page 5
IV.	Maintenance	Page 6

II. Liability:

ChIPLEY Custom Machine and Datum Precision Machining (CCM / DPM) does not accept any liability for the handling of these markers, tools, air tanks, or any other item mentioned in this manual. You, the user accept this sole liability when purchasing and using any paintball marker or paintball accessories. We, CCM / DPM, disclaim any implied warranties or any responsibility for any errors that may appear in this manual.

If, as the user of a paintball marker or any of the accessories that CCM / DPM sells, you do not accept total liability for performing any of the maintenance, assembly, or work performed in this unofficial manual, CCM / DPM requests that you do not do anything described in this manual. You are not to use this manual unless you accept all liability and release CCM / DPM and all of its current and previous members of all liability through any use or misuse thereof.

Simply by using this manual or using the marker in general you release CCM / DPM of any and all liability associated with its use. When using a paintball marker please adhere to all local, state and federal laws.

III. Safety and Handling:

A Paintball Marker is not a toy. Any of the tools in this manual are not toys. Tools and paintball markers should be used only by adults or with adult supervision. Respect other peoples' property and when using any paintball marker, obey all local, state and federal laws. When entering a paintball field, become aware of their rules and regulations.

It is very important to have the proper paintball protection before going to the paintball field for play. This includes and is not limited to eye, head, throat, and body protection. All protection used should be designed for the sport of paintball, e.g. eye gear designed specifically for paintball usage.

Always have a barrel plug in place and keep the safety ON when handling your marker. When repairing or cleaning your marker first remove barrel and gas cylinder, then depressurize your marker by pointing in safe direction and dry firing. Always treat the paintball marker as if it were loaded.

When handling the marker, always keep your fingers or any other objects away from the trigger assembly to avoid accidental discharges. Make sure, when carrying or transporting the marker, to keep the muzzle pointed downward with a barrel-blocking device in place.

Before transporting your marker through public areas, such as airports, or bus and trains stations, call ahead for regulatory information regarding the carrying and transporting of such an item.

Remember, any paintball marker should never be pointed or fired at anyone, and should only be used at a supervised, licensed and insured paintball field.

IV. CCM Regulator Parts List:

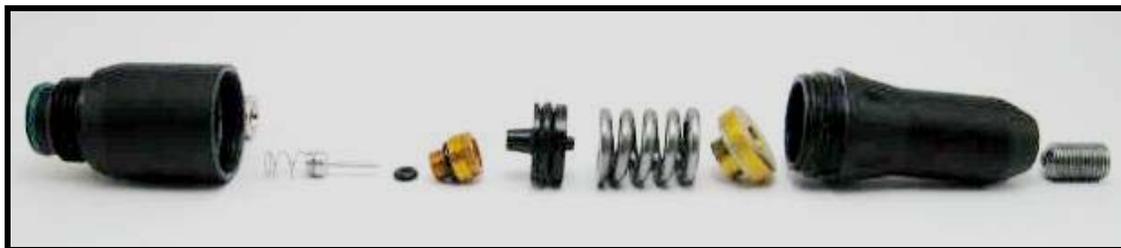
Part	Material	Manufacturer	Part Spec or Number
Regulator Top Housing	2011 Aluminum	DPM	
Regulator Top O-Ring	Buna-N	O-Rings West	N90-015
Poppet Nut	2011 Aluminum	DPM	
Poppet Nut O-Ring	Buna-N	McMaster	N70-010
Poppet (pin)	2011 Aluminum	DPM	
Poppet Spring	Stainless Steel	McMaster	LC 016C 055
Poppet Seat	Buna-N	McMaster	N90-006
Regulator Lower Housing	2011 Aluminum	McMaster	
Lower Housing top O-ring	Buna-N	McMaster	N70-017
Regulator Piston	Delrin	DPM	
Regulator Piston O-ring	Buna-N	McMaster	N70-113
Regulator Main Spring	Music Wire	Lee Springs	Special Grind
Regulator Spring Seat	2011 Aluminum	DPM	
Regulator Adjustment Screw	Stainless Steel	McMaster	3/8 - 24 x 5/8 18-8SS

V. Disassembly of a CCM Regulator for Maintenance:

The CCM Regulator will serve the end user for many years to come with little maintenance. Some players wait until their regulator has performance issues before doing maintenance – however a failed or dirty seal can cause damage to internal parts of the marker. Therefore, CCM recommends that you clean, inspect, and lubricate your regulator every so often to prevent any failure or performance issues. Please use the following steps to disassembling and maintaining your regulator.



Assembled Regulator



Disassembled Regulator

(From Right: to Left: 3/16th Adjustment Screw, Regulator Housing Bottom, Regulator Spring Seat, Spring, Regulator Piston and O-Ring, Poppet Nut, Poppet Seat, Poppet Pin, Poppet Spring, Regulator Housing Top, O-Ring.)

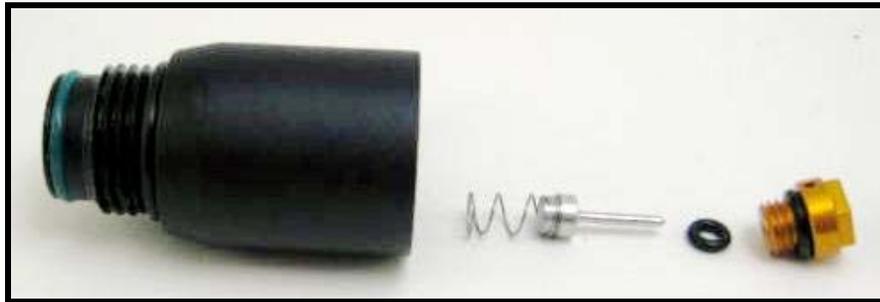
1. Unscrew the halves of the regulator. There are flats machined into the bottom of the regulator to assist in disassembly however, this is often not necessary to use – your hands are often enough. If you do, use some sort of protection so that you do not mar the anodizing.



2. Use an adjustable wrench (or a 3/8th inch socket) to remove the Regulator Pin Retainer.



3. Carefully dump out the rest of the pieces from the top of the regulator.



4. Clean (use Q-tips® in all the appropriate places on the regulator top) and replace the regulator Pin O-Ring if necessary. Apply a light coat of marker oil to these parts and replace them.
5. Use needle nose pliers to pull out the Regulator Piston and O-ring (marring the cone portion of the regulator piston is okay - just do not mar where the regulator pin touches the regulator piston).



You can also take the Velocity Adjustment Screw out of the bottom and push the piston out with a longer Allen key.

6. Carefully dump out the Spring and Regulator Spring Seat (this may take a few taps on your hand or a non-marring surface).
7. Unscrew the 3/16 adjustment screw from the bottom.



8. Clean the bottom portion and replace the Regulator piston or Regulator Piston O-Ring if necessary.
9. CCM packs the lower portion in clear grease. Apply a coat of Dow® 55 or Hater Sauce on the Piston and Piston O-Ring during reassembly.
10. Put the regulator bottom back together and screw in the 3/16th screw flush with the base of the reg.
11. Reassemble the regulator in the reverse order of the steps above and check it for leaks. A simple pressure testing kit could be employed to set your regulator at a desired pressure before attaching it to the marker.