

## Properly Cleaning and Oiling a Tippmann 98 Paintball Gun.

**Note: These instructions are not for replacing parts or repairs, only for the proper cleaning and oiling of the Tippmann 98 Custom paintball marker. These instructions do not explain anything to do with response triggers, E-triggers, expansion chambers, or low pressure systems.**

Needed:

Approximately 45min. to 2hrs time.

A flat area to work on preferably with a cloth or towel lain across the surface to keep items from rolling and to catch excess oil.

Supplies:

Paintball barrel Ramrod

7/32 and 11/64 Allen wrenches

Clean cloth rags

Any type of gun oil or paintball marker recommended lube.

### Process

Warning: Remove all air sources, hoppers and paintballs before attempting to disassemble or reassemble. Injury may result from accidental discharge.

#### Barrel

1. Lay a cloth across your work area to catch the excess oils and to keep pieces from rolling.  
Note: Do not use any water in any portion of the cleaning process with the exception of the barrel but only when necessary.
2. Unscrew the barrel from the gun and inspect for paint. If porting contains debris or paint use water and a dry cloth to remove obstructions.
3. When barrel is dry moisten a cloth with some oil and rub into the surface and around the o-ring near the threads to keep the barrel from oxidizing. You can try and run the cloth through the insides if you will not be storing it for a time, to keep the inside from oxidizing.

Note: This is not necessary on a carbon-fiber barrel

4. Set the barrel aside where it will not roll away.

#### Hand Grips

5. Remove hand grips screws with 11/64 Allen wrench.

6. Clean all trapped dirt, paint and debris from behind the grips and on the main body.
7. Replace the grips and lightly oil the screws before screwing grips back on.

#### Main Body

8. Remove the hopper feed elbow.
9. Close bolt by pulling trigger and allowing the bolt to slide forward. Do not re-cock bolt.
10. Next lay the marker on its right side and begin to remove the screws with the 7/32 Allen wrench.
11. Place all screws where none of them will roll away or get lost.
12. Gather up any screw nuts that may have fallen off the body and place them with the screws.
13. Remove left side cover being careful not to knock the 'end cap' and being careful not to lose the front sight spring.
14. Remove front grip, clean and set aside.
15. Carefully pull out the end cap so as to keep it from shooting off the spring then inspect it and clean any debris with a clean cloth and set it and buffer O-ring aside leaving the rest of the main bolt assembly in place.
16. Next remove the front sight, front sight spring, and front sight pin.
17. Clean any paint or debris from the front sight assembly with a clean cloth then set aside.
18. Remove orange ball latch, clean and place near front sight assembly. Note: Keep good track of ball latch, it's very easy to lose.
19. Then remove and clean rear sight assembly and set aside.
20. Carefully remove trigger assembly and springs, leaving the pins in place, inspect, and then clean all lubricants and debris.
21. Then lightly lubricate all moving parts and set aside.
22. Remove sear spring and sear leaving pins in place.

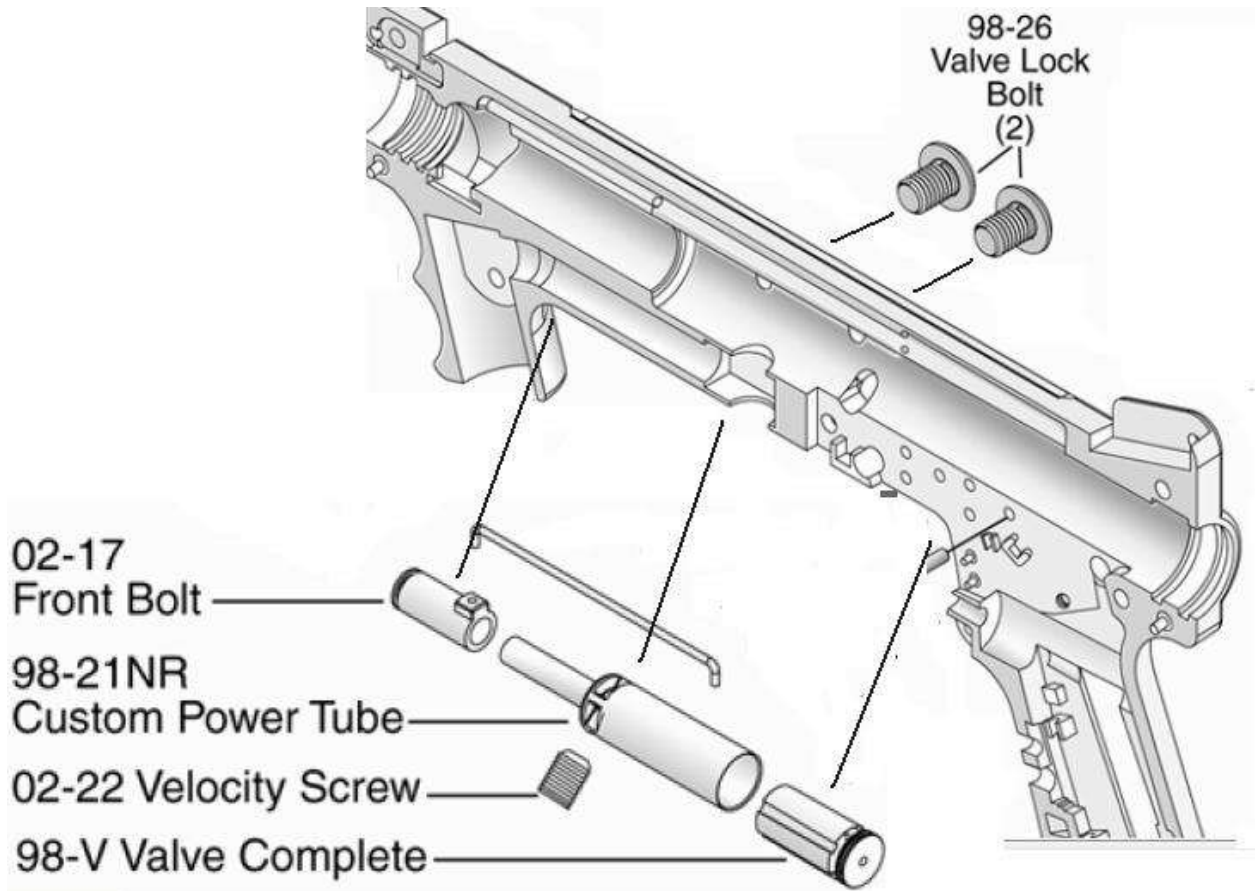
23. Clean sear and spring with clean cloth removing all lubricants paint and debris. Then lightly coat the spring with oil and set aside sear assembly.
24. Pull safety button from its housing and clean all paint and debris with a clean cloth. Lightly oil then set aside.
25. Pull all trigger assembly springs and clean all lubricants and paint off. Then if using a spray lubricant lightly coat and place near sear and trigger assembly. Note: these pins are small and easy to lose. Keep careful track of them.
26. Remove guide pin and drive spring, carefully clean and re-lube then set near buffer O-ring and end cap for later reassembly.
27. Remove linkage arm wipe clean and set aside near other parts of main bolt assembly.
28. Remove front bolt and clean thoroughly. Check for wear on the bolt O-ring and replace if its too worn. Set with other parts of main bolt assembly.
29. Remove rear bolt then remove the bolt handle from the rear bolt and then remove the rear bolt plug and the rear bolt plug from the rear bolt.
30. Clean each part removing all old lubricants, debris, and paint then thoroughly coat the rear bolt plug and replace it inside the rear bolt.
31. Lube the rear bolt handle and place it back in the rear bolt in the same way it was, then set aside rear bolt with other main bolt assembly.
32. Next remove valve lock bolts, clean them, and set them aside.
33. Pull the custom power tube and valve assembly with the gas line and tank adapter and adapter bolts and nuts attached. (Remove and clean bolts and nuts if desired.)
34. Clean the entire assembly with a clean dry cloth then rub with a lightly oiled cloth to prevent oxidization.

**Note: By now, every internal part should be removed from the frame. If there is anything left check the previous steps to see if you have missed anything.**

35. With a clean dry cloth, clean all lubricants debris and paint from both halves of the frame. Then with an oiled cloth, wipe the inside of both halves of the frame to prevent oxidation. If using a spray lubricant, spray the frame and wipe the excess off with the oiled cloth.

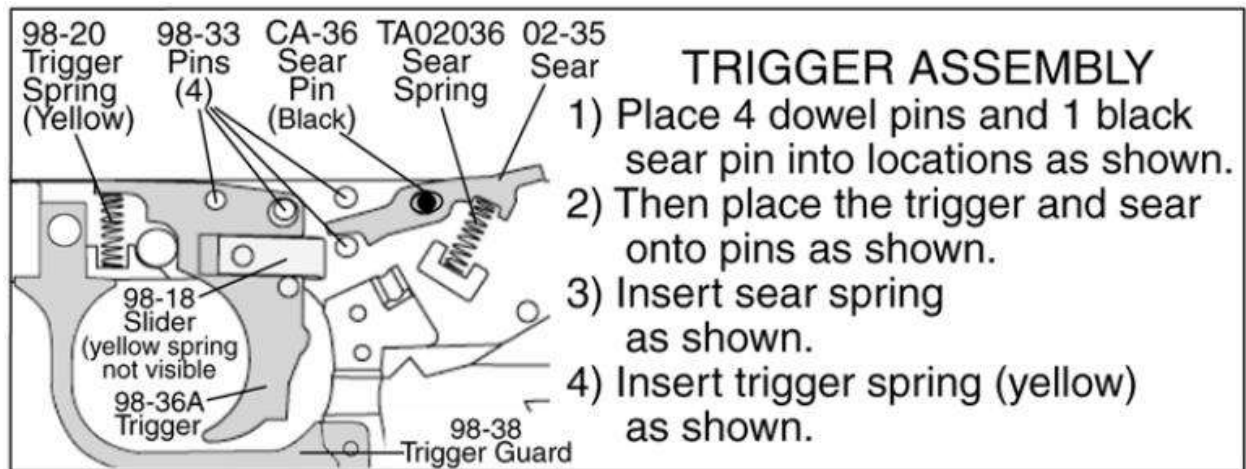
36. Replace the custom power tube and valve assembly in the frame. Lightly oil the valve lock bolts and reattach the valve assembly. (Refer Fig. 2)

Fig.2



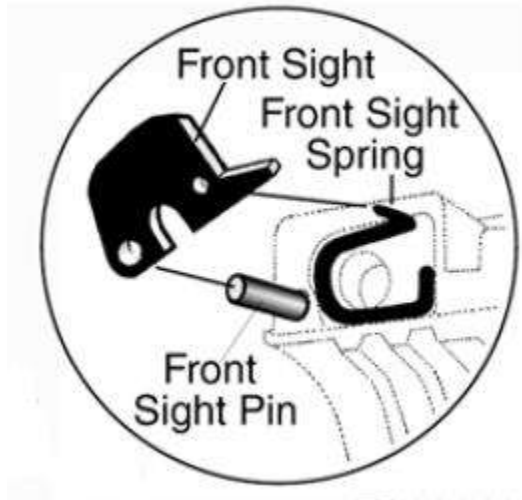
37. Place all the receiver dowel pins and sear pin back into their housing. (Refer fig. 3)

Fig. 3



38. Place a drop of oil on each of the pins to lube the pivot points and to prevent oxidation.
39. Oil the front slide arm of the custom power tube and replace the front bolt. Slide the bolt back and forth on the front slide to properly lubricate the inside of the front bolt. This makes the action smoother and more responsive as well as forming a better seal between the power tube and the front bolt.
40. Slide the front bolt back on power tube and point the linkage arm joint up. (fig. 2, fig. 1)
41. Replace the rear bolt assembly and reattach the linkage arm to the attach points on top of each.
42. Insert the drive spring into the rear bolt plug then insert the guide pin into the eye of the drive spring.
43. Then place the buffer ring and end cap over the drive spring/guide pin assembly and depress the spring placing the end cap into its housing ridges to complete the bolt assembly.
44. Place the adapter nuts (detached from their bolts) into their appropriate housing at the base of the rear grip-frame.
45. Replace the safety with the red 'fire' end up. (Fig. 4)
46. Replace the ball latch. (Fig. 5) Make sure that the detent is facing the correct direction. (curving toward the barrel receiver.)

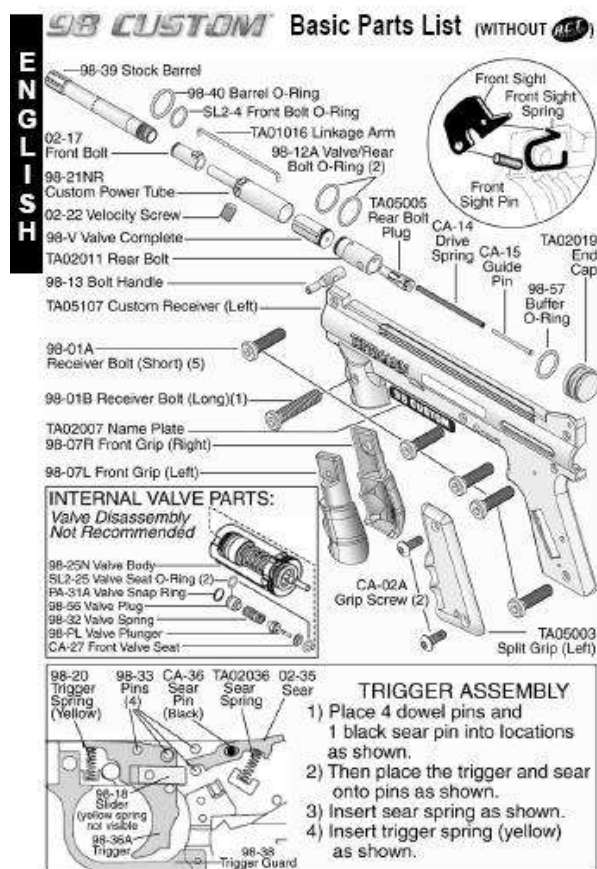
47. Replace rear sight assembly (Fig.5) then replace front sight assembly being careful to depress the spring and catch the sight on the lip so that it remains depressed.



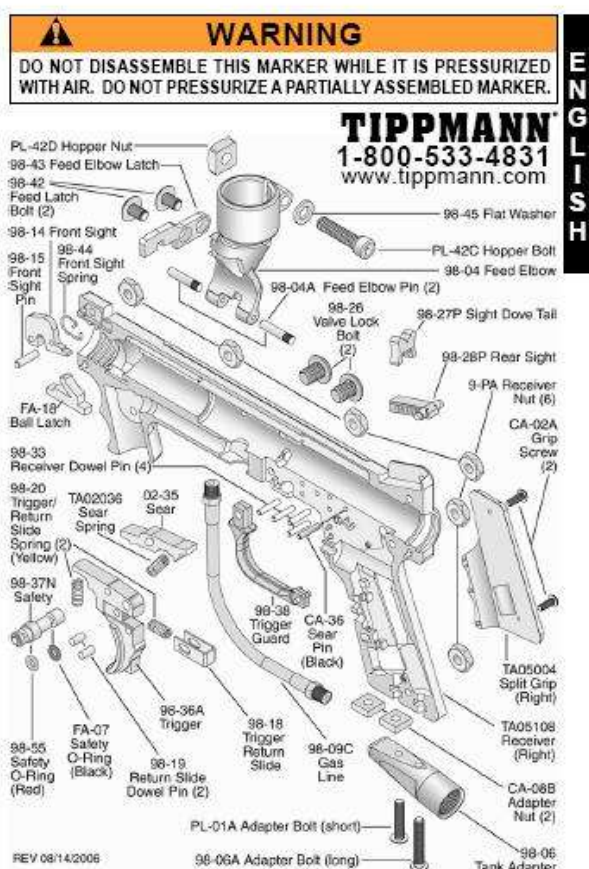
48. Place a drop of oil on the front sight pin.
49. Replace the cover and all the receiver screws and bolts except for the one long receiver bolt for the fore-grip. Leave that one out because it will be easier to put in afterward.
50. Once the cover is correctly in place screw the tank adapter to the bottom of the rear grip with the adapter screws. Be careful not to kink the steel braided gas hose.
51. Place the fore-grip in the fore-grip receiver and replace the long receiver bolt to finish the internal reassembly.
52. Reattach the hopper feed elbow.
53. Cock the bolt back and pull the trigger one or two times to even out all the lubrication.
54. Replace barrel.

**Well done. Your gun is now fully lubricated and clean. It should run like a Deere now.**

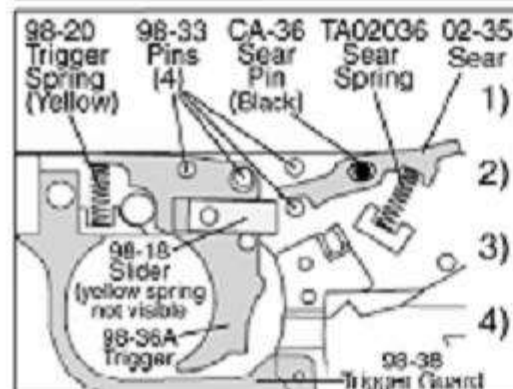
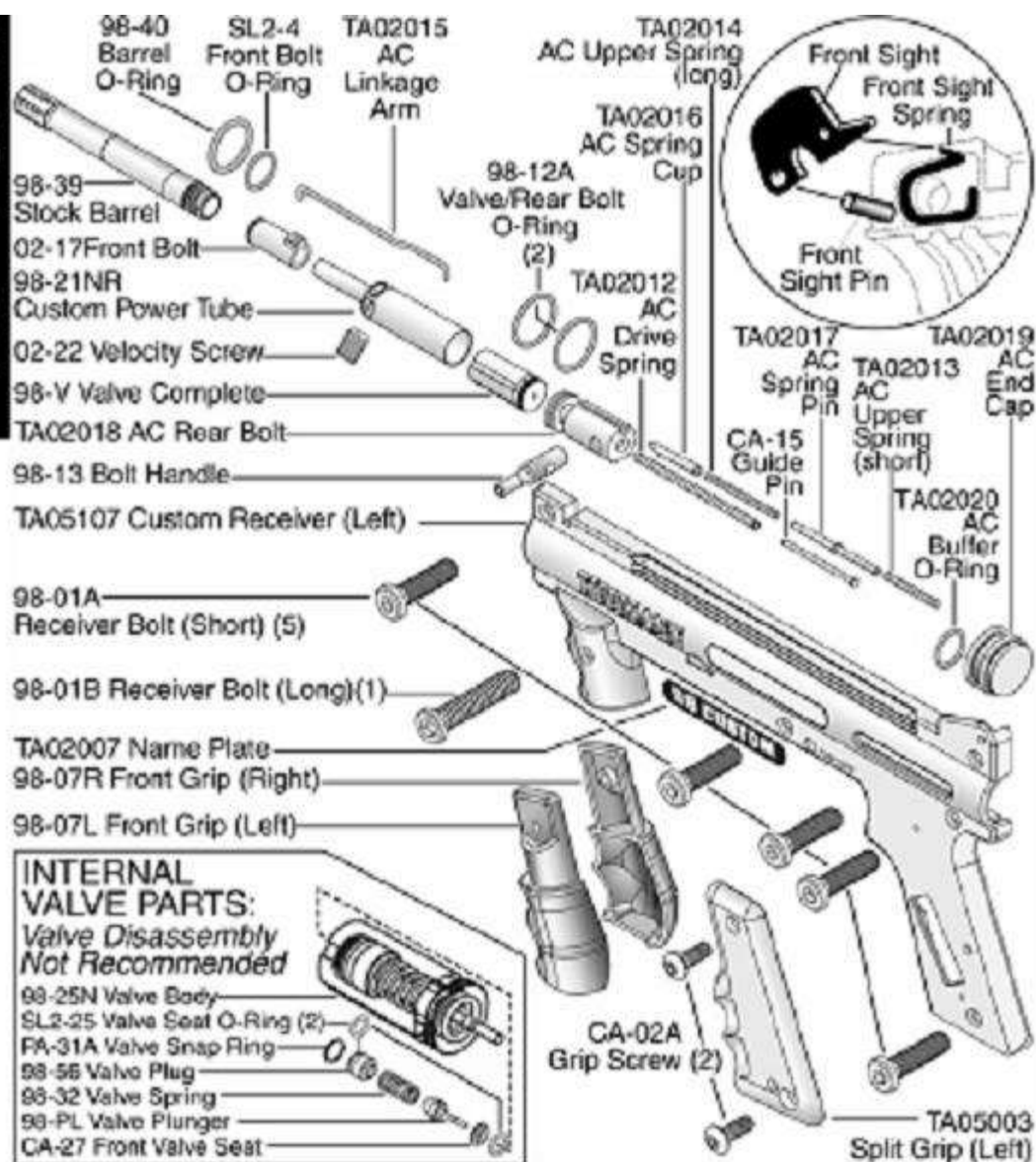
Fig. 1



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## TRIGGER ASSEMBLY

- 1) Place 4 dowel pins and 1 black sear pin into locations as shown.
- 2) Then place the trigger and sear onto pins as shown.
- 3) Insert sear spring as shown.
- 4) Insert trigger spring (yellow) as shown.



Fig.5

