

WARNING: DO NOT field strip or otherwise disassemble this gun while it is pressurized with gas. Disassembling the receiver while under gas pressure will cause personal injury &/or damage to the gun. Remove CO² cylinder or CO² cartridge before doing any disassembly.

**Response Trigger
Kit Contains:**



Set up a table with plenty of space to work.

You will need a 1/8" allen wrench, 3/16" allen wrench, a 5/16" wrench, long nose pliers, a keyhole or rounded file, a phillips head screw driver, a small flathead screwdriver and some gun oil.

READ EACH STEP COMPLETELY BEFORE PERFORMING STEP

Step 1: Prepare Marker for Upper & Lower Receiver Disassembly

To do so, you must: (1- unload your marker; (2- remove CO² source; and (3- uncock marker before further disassembly.

1) Unload your marker: first remove the hopper. Then, point your marker in a safe direction and fire several times to be sure there are no balls left in the feeder or lodged in the chamber.

2) Remove tank: To remove a charged CO² cylinder, turn the cylinder approximately 3/4 of a turn counterclockwise or out. This allows the tank pin valve to close so that no CO² will enter the marker. Point the marker in a safe direction and fire the remaining CO² in the marker by pulling the trigger until the marker stops firing. (This may take 4-5 shots)

If your marker keeps firing after you have turned the tank 3/4 of a turn, the tank pin valve has not closed yet and you may have to turn the tank counterclockwise a little further.

If you turn the tank 3/4 of a turn and it begins to leak before you pull the trigger you have turned it too far and may have damaged the tank o-ring.

3) Put the marker in the uncocked position: hold the bolt cocking handle back - then pull the trigger and release handle forward to un-cock the marker.

Step 2: Remove Gas Line and Lower Receiver from upper receiver

1) To remove gas line from upper receiver:

Remove push pin (#1) in front of gas line plug from upper receiver, release Tombstone Latch and gas line will pull out.

2) To detach lower receiver: Remove 2 lower receiver push pins (#2 & #3) to detach from upper receiver.

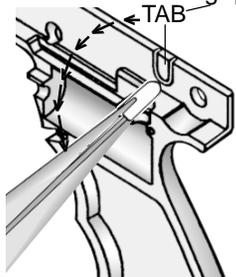
Step 3: Prepare Lower Receiver for Trigger Response Piston/fitting installation

1) Remove gas line adapter bolt (#5).

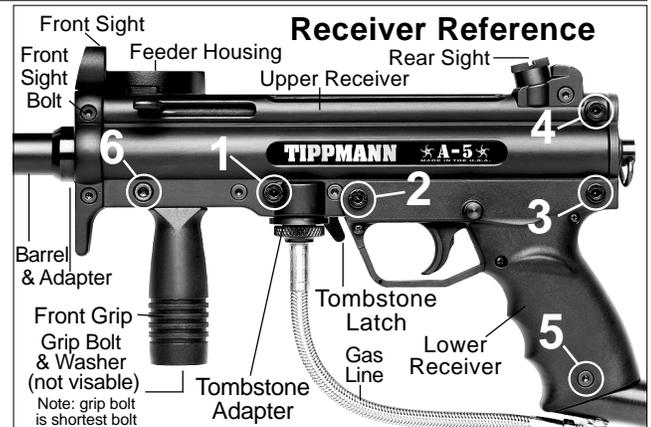
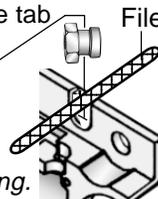
2) Remove trigger assembly from grip: Push Safety out left side of lower receiver and pull up on trigger assembly.

3) Remove 3 grip screws and pull halves apart.

4) Remove tab in right grip half with long nose pliers. Carefully grip the tab and bend it towards the inside of the right grip half to remove it. NOTE: Bending tab towards the outside could damage the right grip.



5) Carefully debur jagged edge where tab was removed with file. File edges until New Flow Connector nut/fitting fits easily into newly created opening when assembling upper & lower receivers later in installation. Clean grip half of any filings before proceeding.



Step 4: Installing Piston/Fitting Into Lower Receiver.

1) Position the assembled piston/fitting into the right lower receiver half.

2) Place trigger guard in position and reassemble the Lower Receiver Halves with 3 lower receiver screws.

3) Reinstall the Trigger Group Assembly into the grip and position so you can insert the safety from left side.

4) Insert tank adapter and secure with tank adapter bolt.



Step 5: Prepare Upper Receiver for Response Trigger Parts Installation

1) Remove drive assembly. (front bolt, power tube, valve, rear bolt, linkage arm, drive pin guide, drive spring and end cap assembly):

a) Screw velocity screw in past receiver.

b) Remove last push pin (#4) holding end cap in place.

c) Pull end cap out and tilt marker up, drive assembly parts should slide out the back.

2) Remove Rear Site: Pull up and out.

3) Remove front grip: Remove bolt/washer inside front grip with 3/16" allen wrench (note: shortest bolt)

4) Remove feeder banjo fitting bolt from upper receiver and carefully slide cylinder hose off it. This banjo fitting will not be reinstalled.

5) Remove Feeder Housing: With 3/16" allen wrench remove bolt #6 from left front side of upper receiver.

6) Remove front sight: Remove front sight bolt just below front sight and slide sight upward.

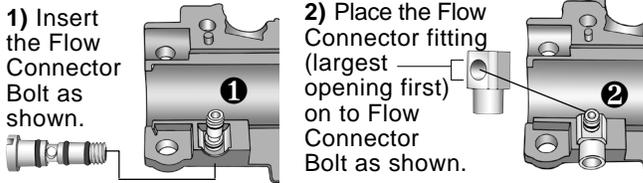
7) Barrel/Adapter Removal: Loosen remaining 6 upper receiver bolts and twist barrel counterclockwise to remove barrel and adapter as one unit.

8) Remove 6 upper receiver bolts & separate halves.



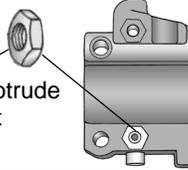
WARNING: DO NOT OPERATE THIS MARKER WITH PARTS MISSING OR DAMAGED. If a part is lost or found to be damaged, obtain a replacement part before continuing reassembly.

Step 7: Install 2 new parts into the left upper receiver half.



Step 8: Remove Nut From Right Receiver.

Align two upper receiver halves to identify and remove nut from lower back right half where Flow Connector Bolt will protrude (new Flow Connector Nut/Fitting will be installed at this point later in - Step: 9, #9).

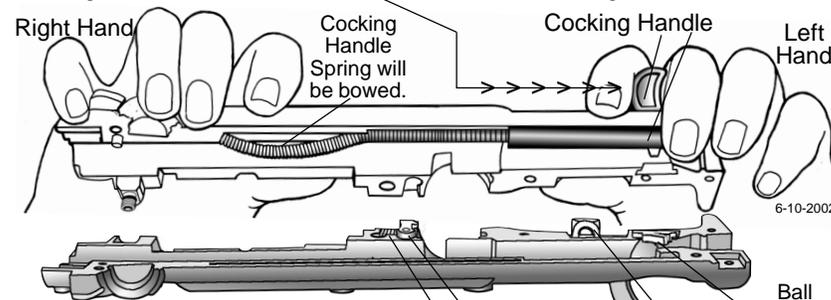


Step 9: Reinserting internal parts and putting two upper receiver halves together.

1) Make sure all parts are clean before reassembling. Place right upper receiver half flat with Tombstone Latch & Spring, Front Grip Nut, and Ball Latch in position as shown below.

2) With left hand, grip left upper receiver half as shown to hold Cocking Handle and spring in place by applying side pressure with index finger pushing in direction of arrows against Cocking Handle.

3) With left hand holding as per 2), use right hand to seat cocking handle with spring into receiver cutout then position edge of spring in end of spring cutout bowed as shown below. Then grip left receiver with right hand as shown.



WARNING: Do Not reassemble without making sure Tombstone Latch & Spring are properly inserted in place as shown.



4) Use your finger tips to guide the left half straight down on to right half until receiver halves fit flush. If it does not fit flush the first time, check to make sure the spring and other parts have stayed in place and repeat until halves fit flush.

5) Insert 4 Receiver Bolts (not front sight bolt yet) & tighten them just enough to hold halves flush yet loose enough to allow you to now insert and twist Barrel/Adapter unit clockwise to reinstall.

6) Insert Front Sight with its slot facing back of gun into the top front of receiver and insert 5th bolt to hold in place.

7) Now make sure all bolts are tight but do not overtighten / strip threads.

8) Reinstall Rear Sight, (push-in).

9) Insert the Flow Connector Nut/Fitting into right upper receiver half where receiver nut was removed (Step: 8) and secure by screwing Flow Connector Bolt into it with a flat head screwdriver.

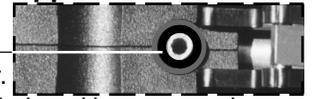
(Insert this end)

Step 10: Reinstall drive assembly parts

- 1) Clean inside upper receiver & removed parts.
- 2) Insert reassembled parts (front bolt, power tube/valve, rear bolt with linkage arm facing up) until Tombstone adapter can be inserted and velocity screw can be accessed. (You may need to jiggle marker while sliding parts in). With Tombstone adapter inserted, insert push pin to hold Tombstone adapter in place.
- 3) Insert drive spring & drive pin, end cap unit & replace upper end cap pin.

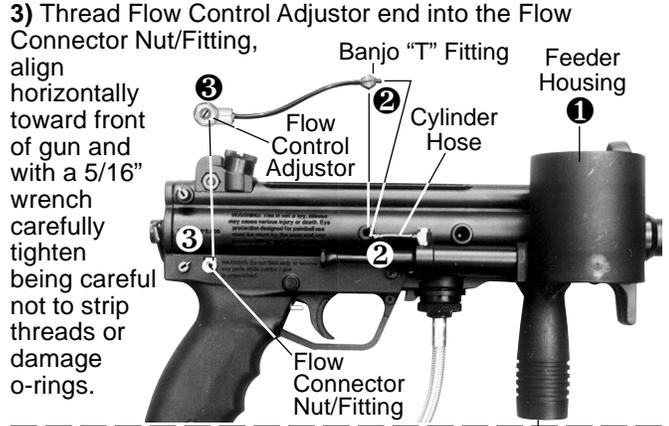
Step 11: Attach Lower to Upper Receiver

- 1) Put a couple drops gun oil onto o-ring of Cylinder Fitting visible in top of lower receiver.
- 2) Line up grips front push pin holes with upper receiver holes then gently rock rear of grip so Flow Connector Nut/Fitting slides into knocked out tab space on lower receiver. Insert two lower receiver push pins to attach.



Step 12: Install Flow Control Exterior Assembly:

- 1) Reinstall Feeder Housing by attaching with bolt #6 inserted from left side of gun.
- 2) Thread Banjo Bolt "T" fitting into upper receiver where old 90° banjo bolt came out; align horizontally and carefully tighten being careful not to strip threads or damage o-rings. Slide cylinder hose onto fitting.
- 3) Thread Flow Control Adjustor end into the Flow Connector Nut/Fitting, align horizontally toward front of gun and with a 5/16" wrench carefully tighten being careful not to strip threads or damage o-rings.



Step 13: Install Front Grip

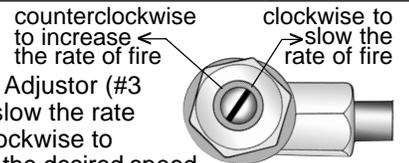
Use a 3/16" allen wrench to insert shortest bolt with washer up into front grip, align and thread into front grip nut positioned in upper receiver and tighten.

Step 14: Reinstall the CO² tank and adjust the velocity screw to complete installation.

You are now ready to tune the Response Trigger.

Step 15: Tuning:

With a screwdriver, turn the Flow Control Adjustor (#3 above) clockwise to slow the rate of fire, turn counterclockwise to increase rate of fire to the desired speed.



Tuning: Troubleshooting A:

If Step: 15 produces little or no response in the rate of fire, reset the Flow Control as follows:

1) With marker properly unloaded, begin adjusting rate of fire by turning flow control clockwise completely, (do not over tighten or damage will occur), then in a safe direction, fire 2 to 4 shots. Trigger should become very hard to pull or even unable to be pulled. If this occurs, the response trigger system is functioning properly, go to step 2. (If it does not occur, go to **Troubleshooting B.**)

2) Now while firing in a safe direction with marker still unloaded, slowly turn the flow control adjustor counterclockwise until desired rate of fire is achieved.

Tuning: Troubleshooting B:

If the trigger remains easy to pull after adjusting the flow control as in 1), there may be a leak in the system. Double check installation making sure all fittings are tight and o-rings are properly seated. If you need to disassemble to check that all fittings are tight and o-rings are properly seated, follow disassembly/assembly instructions: **Do NOT disassemble this marker while it is pressurized with gas.** If a problem still exists, call Tippmann Service Department at 260-749-6022.