

- To loosen fit flatten the wedge.
- To help ease this process screw the stock plate in place on the left side of the stock. This will help to ensure proper line up.
- Once you are sure of the alignment you can pull the wedge back out, slide the right side plate onto the wedge and reinsert it into the hole.

Note: If you have black side plates they will fit over the recessed holes and not in them. Do not be alarmed, the recessed holes are designed for brass plates that would have already come already installed on the stock. Since this hole attaches the tang to the trigger assembly we will install that next. Once all the problem areas have been removed and holes aligned proceed to the next step.

9. Set the hammer in the half-cock position. The barrel bolster should be positioned concentrically into its cut-out in the lock plate and the lock plate should be snug against the barrel.
10. Insert the tang screw through the hole in the corresponding tang and pass it through the stock and into its corresponding hole in the trigger assembly.
11. At this point the hammer should be positioned so that it will fall squarely onto the nipple. If it does not one or more of the following steps may be taken.
 - Remove wood from bottom of lock recess, until lock is flush with the barrel.
 - Remove wood as needed from under and behind the barrel channel, including tang area.
 - Check that the lock plate and lock plate screws are snugly fitted into the stock and the lock is properly positioned in its cut-out.
 - If proper alignment is not obtained with the previous steps, the hammer may be bent slightly by removing it from the lock, heating it and by bending it carefully to obtain the correct alignment.
12. Using the two rear sight screws attach the rear sight base (incline sloping upward towards the muzzle) to the corresponding screw holes on the top of the barrel.
13. Install the front sight into the dovetail cut out on the top front of the barrel by tapping gently.

Brass to Wood Assembly:

Keep in mind that when attaching brass to wood you can file either the wood or the brass. Always be careful to file away sparingly and check for proper fit often.

14. Trigger Guard
 - Press the rear of the trigger guard into the stock. Then press the front into inlets. The front of the guard should fit snugly and some pressure is required to obtain this fit.
 - If necessary the stock inlet for the rear of the guard may be lengthened slightly.
 - Insert Trigger guard screws.
15. Nose Cap
 - With the barrel attached to the stock, place the nose cap on the stock. If the cap does not fit properly remove wood sparingly and in small quantities until the nose cap fits snugly.
 - Insert and tighten two screws.

16. Butt Plate
 - Center butt plate on stock so that it either butts to or overlaps the wood. Contours of the plate and stock should match as closely as possible.
 - Carefully attach two wood screws to hold in place.
 - File away access brass before sanding stock.



17. Patchbox
 - Press patchbox into stock removing wood as necessary with a file or small chisel. Remember to remove wood sparingly.
 - Insert and tighten two patchbox screws.



18. **Note:** As with the barrel tenon final fitting of sights should be done only after bluing or browning the barrel.

Now that the gun is completely together and dry fit you need to check for functionality. Be sure to visually inspect the entire gun and components. Some common problems that can result are listed below with solution.

- **Hammer won't cock back completely:**
Fix: Remove lock from stock. Visually inspect inletting for "dark" "oily", or "rub" marks. They will most likely be along the bottom of the inletting for the lock opening. If these are spotted use a small chisel, file or Dremel® tool to remove excess wood. Make sure to take out small amounts and check fit and function of the lock. Continue to remove wood until lock operates properly.
- **Lock Plate sits out too far:**
Fix: If the lock sticks out too far shave small amounts away from inletting. Continue until locks sits properly in inletting.
- **Lock Plate sits in too far:**
Fix: If the lock sits in too far use wood or plastic shims to set proper spacing. Make sure these shims don't interfere with any moving parts on the lock plate. Wood putty is not recommended to use as a shim because it can shift or compress.

Once everything fits properly and functions as it is supposed to, disassemble the rifle and place parts back into Rubbermaid® bin or similar container.

Final Fitting:

Now that all of our parts have been dry fitted we need to prepare the stock and barrel for their final finishes. Remember that this is where diligence pays off. Proceed slowly and be critical of your work and you will be rewarded with a fine looking firearm.

Stock

- Using progressively finer wood rasp and sandpaper, bring wood and metal surfaces flush with each other. File together to achieve a smooth transition between the surfaces. Proceed carefully, deliberately, and slowly.
- Once all surfaces are flush use an orbital sander and hand sanding block to continue to smooth imperfections on the stock.
- To achieve a good finish sand using 150 grit sandpaper.
- To achieve a better finish continue sanding with 180 grit sandpaper
- To achieve the best finish use a 220 grit sandpaper or higher.
- Remove or tape over metal parts before staining of finishing stock.
- Once all sanding is complete stain with your choice of stain and color. Follow directions on the can for best results.
- Once that stain dries completely apply an even coat of polyurethane for added protection.
- At this time you can you can install the sling swivel to the underside of the buttstock. Select a drill bit slightly smaller than the screw portion of the sling swivel.
- Install sling swivels.

Barrel

- Polish bare steel parts with varying grits of emery cloth, each one finer than the previous. Finish with a fine steel wool.
- Brown or blue steel parts with chemicals available in most gun shops. We recommend the bluing kit available from Birchwood Casey.

Brass

- Polish Brass and bare steel parts with different grits of emery cloth, each one finer than the previous. Finish with a fine grade steel wool.

Once all bluing and staining is complete reassemble the rifle using the same steps you did during the dry fitting process. Make sure all parts fit properly and screws are properly tightened down. Be sure to read your owners manual before firing your rifle for the first time. This manual is designed to teach you proper techniques, loads and safety practices.

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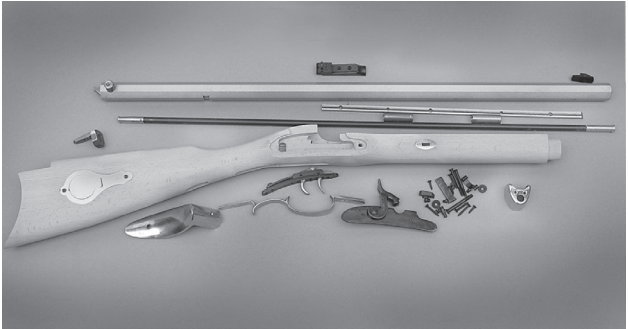
FIT5

Traditions™

PERFORMANCE FIREARMS

Rifle Kit Instructions

Hawken Rifle



Congratulations and thank you for purchasing your new Traditions muzzleloading kit. When you are finished you will have a fully functional and operable muzzleloader that you can take to the range or in the field. For this reason it must be handled with the same precautions and respect due any firearm. Before loading or shooting this gun, read and understand and always be willing to follow the instructions, loads, and precautions as outlined in the enclosed Warranty and Shooting Instructions Booklet. If this booklet is not with your kit, contact Traditions for a free replacement copy.

Please be sure to read the below instructions completely before assembling your Traditions rifle kit. Please note that once the package has been opened and altered in anyway (I.E. sanding, staining, bluing, filing, etc...) you will need to contact Traditions directly and not your dealer to resolve any issues that may arise.

The following instructions will enable a moderately handy person to build a safe, serviceable, and shootable muzzleloader. This kit is to be considered moderately hard (Intermediate Skill Level) and you should expect to do some filing of both metal and wood to make it fit properly. Greater skills and patience will be rewarded with a truly fine rifle reminiscent of the muzzleloading era.

Skill Levels:

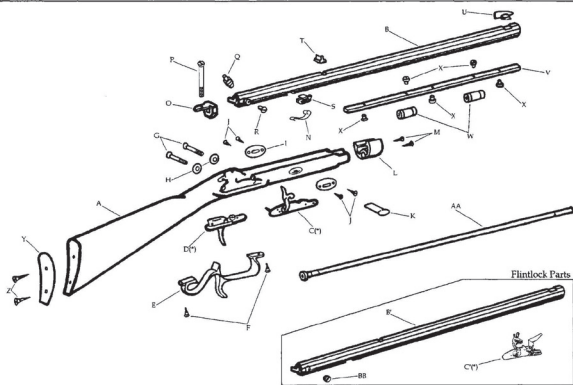
Beginners:

Stock: 95% inletted. Will require final fitting of metal parts, final sanding & finish. May require some holes to be drilled.
Metal: May require some minor polishing. May require bluing or browning

Intermediate:

Stock: 95% inletted. Will require some minor stock shaping & final fitting of metal to stock, final sanding & finish. Will require holes to be drilled.
Metal: Will require polishing & browning or bluing.

- Springfield Hawken Rifle -					
Models:			Finished		Kit
R-2225	R-2210	R-2220	R-22248101	R-2210801	R-22208101
45 cal. perc. 1-46"	50 cal. flint. 1-46"	50 cal. perc. 1-46"	54 cal. flint. 1-48"	50 cal. flint. 1-48"	50 cal. perc. 1-48"
Blued Barrel	Blued Barrel	Blued Barrel	Blued Barrel	Blued Barrel	White Barrel



Description	Reference	Description	Reference
A Buttstock Beech Kit	K-20201-1	K Rear Sight	20210
Buttstock Flintlock Beech Finished	FCS20101-1	L Front Sight	36011
Buttstock Percussion Beech Finished	FCS20201-1	O Bolster Screw Percussion Only	20605
B Barrel Assembly Kit	C-202020	P Barrel Tennon (2)	20233
.50 Cal Perc.		Q Ramrod Thimble Screw (3)	20214
Barrel Assembly Finished	FB202020	R Forestock Beech (Kit)	K-20201-2
.50 Cal. Perc.		Forestock Beech (Finished)	FCS20201-2
B Barrel Assembly Kit	C-201020	S Front and Middle Thimble	20213-A
.50 Cal Flint		T Stock Joining Plate	20207
Barrel Assembly Finished	FB201020	U Stock Joining Pin (2)	20212
.50 Cal Flint		V Rear Thimble	20213-B
C Percussion Lock	20203	W Barrel Tennon Pin (2)	20218
C Flintlock	20103	X Nose Cap	20215
D Trigger Assembly	20222	Y Nose Cap Screw (2)	20225
E Lock Plate Washer (2)	20619	Z Toe Plate Screw (3)	20624
F Nipple Percussion Only	20608	AA Butt Plate	20226
G Tang Screw	20609	BB Butt Plate Screw (2)	20627
H Lock Plate Screw (2)	20220	CC Ramrod Assembly	20228
I Trigger Guard Screw (2)	20624	DD Toe Plate	20231
J Trigger Guard Brass	20223	EE Touch Hole Insert -Flint Only-	20534

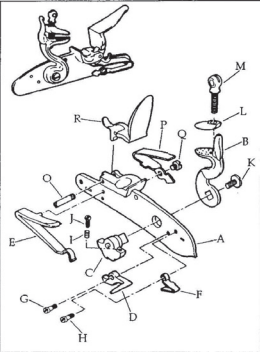
Additional Items:

- Please note that the below listed items are items that we advise using in addition to those parts that came with your kit. These items are meant to ease the assembly of the kit and will allow for a better fit and finish.
1. Wood Files (several different sizes and shapes)
 2. Wood Carving tools (chisels or Dremel tools are acceptable)
 3. Vise
 4. Cordless Drill
 5. Sandpaper (150, 180, & 220)
 6. Emery Cloth
 7. Fine Grade Steel Wool
 8. Bluing Kit (Birchwood Casey)
 9. Wood Putty
 10. Stock Finishing Kit (Wood Stain & Polyurethane)
 11. Safety Goggles
 12. Latex Gloves

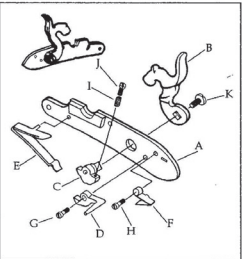
Step 1:

After removing the rifle kit peel away the plastic protective layer and inventory that all parts are included. The easiest way to do this is check off each item and quantity. Then place them in a closeable tray for safe keeping. Please refer to enclosed parts list, if any are missing or are lost during the building process please reference the part number and call Traditions to reorder or have replaced.

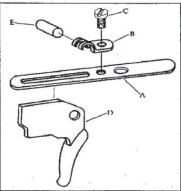
Flintlock Assembly - Ref. 20103



Percussion Lock Assembly - Ref. 20203



Trigger Assembly - Ref. 20222



Step 2:

Once all of your parts are present and accounted for you can start to “dry fit” them to the gun. This process should be taken very seriously as it will pay big dividends later when the final fit and finish occurs.

General Assembly Instructions:

1. Fitting: All metal parts should be placed into their respective cut-outs of the stock and should fit snugly. Remove wood sparingly and only as needed with a sharp chisel or carving tool. Proceed slowly, it is better to remove too little wood then take too much out.
2. Woods Screws: to facilitate assembly and to avoid cracking the stock, mark and drill small pilot holes into the wood before inserting Wood Screws.
3. Metal Screws: Turn Screws into and out of their threaded holes several times to burnish the threads to insure smooth fit.

Description	Reference
A Lock Plate	70101
B Hammer	70502
C Tumbler	70603
D Sear	70504
E Mainspring	70505
F Sear Spring	70506
G Sear Screw	70514
H Sear Spring Screw	70121
I Sear Adjusting Screw Spring	70520
J Sear Adjusting Screw	70518
K Hammer Screw	75512-P
L Top Jaw	70509
M Top Jaw Screw	70513-L
O Frizzen Screw	70516
P Frizzen Spring	70519
Q Frizzen Spring Screw	70517
R Frizzen	70507

Description	Reference
A Lock Plate	70201
B Hammer	70620
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D Sear	70504
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F Sear Spring	70506
G Sear Screw	70514
H Sear Spring Screw	70121
I Sear Adjusting Screw Spring	70520
J Sear Adjusting Screw	70518
K Hammer Screw	75512P

Description	Reference
A Trigger Plate	60401
B Trigger Bridle	60403
C Bridle Screw	60406
D Trigger	60402
E Pin	60404

Dry Fitting:

Sear Engagement:

Before inserting the lock assembly into its cut out slot, verify that lock is in proper working order and that sear engages correctly. Visually inspect back of lock plate that sear does not have any burrs or defects that will prevent it from functioning properly. Using your thumb, pull hammer back to half cock position. Watch the sear to make sure that it falls correctly into the notch. After sear is found to be properly seated, place hammer in full cock position and check to make sure that it engages into the 2nd position on the sear. Repeat several times to make sure lock assembly and sear engagement are in proper working order. Once complete proceed to next step.

Lock Assembly:

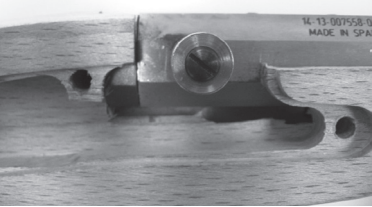


1. Start with the lock assembly. Press firmly into the pre cut inletting. Place the back end in first and then the front of the lock assembly (Note: *it should fit snugly but not so tight that you need to force it in.*) If forcing is required note the areas where wood removal needs to occur. In the event that the lock is loose you will need to add spacers in the gaps to ensure a proper fit. Wood putty can be used to fill in holes, but do not use to hold lock assembly in place.
2. Position the Ramrod Retaining Spring into the Stock so that the end of the spring which has the loop-hole is positioned towards the muzzle & the curve is downwards towards the ramrod channel.
3. Once the lock assembly is in place visually verify that the screw holes line up. If holes are not perfectly aligned, enlarge one or both stock holes with a round file or drill to permit alignment. Screws should be snug against the barrel.
4. Install the front lock plate screw & washer through the hole in the stock, passing it through the loop hole in the ramrod retaining spring and into the corresponding hole in the lock plate.
5. Install the second lock plate screw & washer.

Note all areas where additional fitting is required. You can use a pencil to outline areas where wood needs to be removed. Once all the excess areas have been removed and holes aligned proceed to the next step.

Barrel Assembly & Trigger Assembly into Stock:

1. Test that the tang screw turns smoothly within its corresponding threaded hole in the trigger plate by turning it in and out several times to burnish the threads.

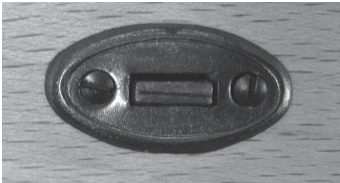
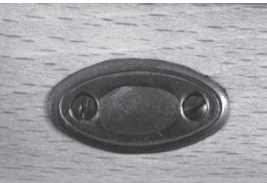


2. Test that the trigger moves freely within the trigger guard. If not, move it back & forth a few times to free up any binding. Pushing the trigger sideways in its housing will also help loosen its movement.
3. Place the Trigger assembly (Part P) into its cut out slot. Here again you want a snug fit but not so tight that it has to be forced in.



- If forcing occurs note areas that need to be filed or removed. Remove wood sparingly.
- Ensure the top bar of the trigger does not touch any wood.
- If too lose note areas where wood putty is needed.
- After inspecting trigger assembly fit, make sure that it is properly aligned with the barrel tang hole. If the holes are not perfectly aligned enlarge with a round wood file or drill bit.
- Once all the excess areas have been removed and holes aligned proceed to the next step.

4. Test that the wedge transverses from the right side of the stock and exits the cut out on the left side. Remove wedge.



5. Install the ramrod thimble/rib sling swivel assembly to the underside of the barrel with the two thimble/barrel rib screws.

At this time set the stock and components off to the side. We are going to move onto the barrel at this time. For the next step you will need the Barrel Assembly, barrel tenon and Nipple.

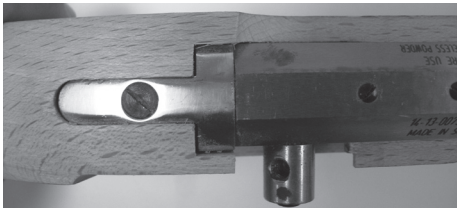
6. First we want to attach the barrel tenon to the barrel assembly. This is done by inserting the tenon into its slot on the barrel. Using a rubber mallet or small hammer gently tap in place until tenon is even centered on barrel.
 - Make sure angle end is pointing towards the muzzle.

7. Once this is complete take nipple and thread into bolster. Finger tighten. At this time you can also screw the bolster screw into its designated spot. Using a straight slot screw driver tighten till snug.
 - Coat the thread of each with lube for easy future removal.

Note: Once all these parts are installed we want to fit the barrel to the stock.

Note: To properly fit the barrel to the stock place the barrel into the barrel tang and gently set into stock. Make sure that barrel is all the way back into the tang slot. You need to visually inspect to make sure that bolster lines up with hammer and that when the hammer falls it hits the cap squarely. You must also pay close attention that there is a very slight gap between the bolster & locking plate.

8. Take the barrel tang and insert into its cut out area. This part should go into place rather easily. Visually inspect to make sure holes are correctly aligned.



- File the tang or breech hook surfaces sparingly and only if needed to obtain a smooth, flush, yet snug fit.
- These parts should require a moderate amount of force to join them together.
- If holes are not perfectly aligned, enlarge with round file or drill bit to permit alignment.

Since this hole attaches the tang to the trigger assembly we will install that next. Once all the problem areas have been removed and holes aligned proceed to the next step.

Next you want to make sure that the barrel tenon lines up correctly through its hole. To do this inset barrel wedge from right to left and gently tap into place. Note: Barrel Tenon should fit snugly. If the fit is too tight, sparingly file the dovetail portion of the tenon with a triangular file to reduce it slightly. If the tenon is too loose, using a hammer and a punch, indent the surface at the base of the dovetail with the punch so as to raise the edges around the punch indentations. An additional method of tightening is to install the tenon and tap the angular edges of the dovetail with a hammer and punch so as to capture the tenon.

Note: It will be necessary to remove the tenon in order to completely coat the dovetail and tenon surfaces with bluing or browning solutions. Final fitting will happen after coloring.

- If tenon is blocking part of the wedge hole you will need to either spread the tenon or use a metal file to take away excess metal to allow a proper fit. (Once the barrel wedge slides through snugly)
- To tighten fit you can place the wedge in a vice and bend by gently tapping with a hammer in the direction it needs to go.