8. With a pencil mark a vertical line on the stock at both distances where the center of the tenon lies inside the stock.
9. With the barrel removed measure from the top of the barrel to the center of both tenons.
10. With the barrel in place, mark a horizontal line across both vertical lines at the measured distance from the top of the barrel.
11. Secure the barrel and stock with either tape or a paddled clamp.
12. Drill a #32 (11/16 inch) hole completely through both stock and tenons where lines intersect.
13. Carefully tap tenon pins through holes, file flush with stock.

At this time remove the barrel from the stock and 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.

14. 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: 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 & its designated spot. Using a straight slot screw driver tighten till snug.

15. 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.

16. Insert the tang screw through the hole in the corresponding plate and the lock plate should be snug against the barrel.

17. If proper alignment is not obtained with the previous steps, the hammer may be best slightly by removing it from the lock, heating it and by bending it carefully to obtain the correct alignment.

18. Install sight into dovetails and indent metal with hammer and punch to assure they are secured.

19. Install front sight into the dovetail cut out on the top front of the barrel by tapping gently.

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

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.

20. Trigger Guard
• Press the rear of the trigger guard into the stock. Then press the front into its seat. 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.

21. 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 snug.

22. 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 with wood screws to hold in place.

• File away excess brass before sanding stock.

23. Toe Plate
• File a notch into butt plate to seat toe plate.
• Place one end of the toe plate into notch and align with bottom of stock.
• Use pencil to mark end of toe plate.
• File stock to the mark, so toe plate will seat flush.

• Insert and tighten two screws.

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 solutions:

• Hammer won’t cock completely:
Fix: Remove lock from stock. Visually inspecting for “dunk,” “july,” or “rub” marks. They will most likely be along the bottom of the inletting for the locking. 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 sits 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 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 special attention 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 tap over metal parts before sanding 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.

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 that 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.

Brass to Wood Assembly:
Now that all our parts have been dry fitted we need to prepare the stock and barrel for their final finishes. Remember that this is where special attention pays off. Proceed slowly and be critical of your work and you will be rewarded with a fine looking firearm. 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: 85% 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.

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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.
### Additional Items:
Please note that the below listed items are those 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 several times to burnish the threads to insure smooth fit.

- 1.  Butt Plate Screw (2) 20627
- 2.  Butt Plate Brass 24026
- 3.  Trigger Guard Brass 20823
- 4.  Ramrod Assembly 22228M
- 5.  Nose Cap Screw (2) 20627
- 6.  Ramrod Thimble (2) Brass 20613
- 7.  Thimble/Barrel Rib Screw 20614
- 8.  Front Sight 36611
- 9.  Bolster Screw 20605
- 10.  Barrel Tennon 20533
- 11.  Rear Trigger Adjustment Screw 60608
- 12.  Rear Spring Screw 60606
- 13.  Front Trigger 60602
- 14.  Trigger Plate 60601R
- 15.  Mainspring 70505
- 16.  Sear 70504
- 17.  Tumbler 70603
- 18.  Hammer 70802
- 19.  Top Jaw Screw 70513-L
- 20.  Top Jaw 70509
- 21.  Sear Spring Screw 70121
- 22.  Sear Screw 70514
- 23.  Mainspring 70505
- 24.  C Tumbler 70603
- 25.  B Hammer 70502
- 26.  A Lock Plate 70101

### Step 1:
Before 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.

### Step 2:
Once all of your parts are present and accounted for you can start to “dry fit” them into 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 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 Woods Screws.
3. **Metal Screws:** Turn Screws into and out of their threaded holes several times to bumish the threads to insure smooth fit.

### 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 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 (Part A).** Press firmly into the pre cut opening. **(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. **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.
3. **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.**
4. **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 thumish the bolts.
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 F) 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 loose 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.**

### Stock Joining Plate:
Before you set the barrel in its inletting you need to join the two sections of stock together. When assembling the two sections of stock with the stock joining plate be sure that the inletting is lined up straight and there are no gaps in the stock. Once you have the plate in place you may need to fill it down. Be careful to file small amounts and try to make it as flush with the wood as possible.

### Tenon Pin Assembly:
6. With the barrel removed measure the distance from the muzzle to the center of both tenons on the bottom of the barrel
   - **Make sure this measurement is accurate and double check it necessary.** Tenon pin measurements must be precise or the pin will not align with tenon.
7. Place barrel into the stock.