REMEMBER: Before installing or adjusting your sights, unload and/or check to ensure the firearm is unloaded.

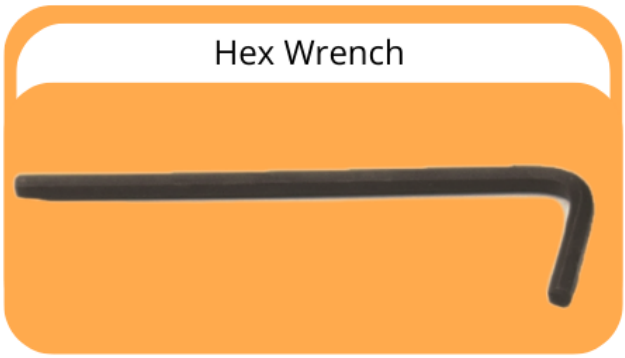
Lever Rail & Rear Sight Installation

Marlin 1985/336/1894, Henry, Rossi R95

1. Check to verify the unloaded condition of the firearm before starting any work.
2. Remove the filler screws from the scope mount holes in the receiver top. In some cases, the rear most filler screw will not need to be removed.
3. Tap out the factory rear sight from its dovetail slot in the barrel using a non-marring punch (brass/Nylon/Delrin). Try from both sides as one side might start easier. If no side starts easier it is recommended to remove the sight to the RIGHT. Take care not to mar the forearm during removal.
4. Disassemble the mounting pillar unit and try the pillar in each side of the dovetail slot. You might find it goes further on one side than the other. Use that side for installation if there is one, otherwise it is recommended to install from the RIGHT.
5. If the pillar readily slips into the dovetail slot, center it and install the pillar jack screw lightly tightening it to hold it in position. If it does not readily slip or drift into place using a non-marring punch and hammer, you may need to remove material from the bottom of the pillar until it slips or drifts into place. *(See Front Post Instructions for more detailed info about this.)*

6. Test fit the mount onto the rifle. You may have to tap the mount down over the pillar using a wooden block. On some rifles you can find that when the screw holes of the mount are aligned with those of the receiver, that the pillar is back rearwards from the hole for it in the mount. In such cases, you will find that by opening the hole on the mount rearwards using a ¼" chainsaw file or trimming back using a knife blade, that now the mount will fit so the screw holes and pillar holes are all aligned. Work slowly and test fit often removing only what material you need to get a good fit.

7. At this point the mount may not sit totally flat on the receiver top. This is due to the mount warping slightly from stress being relieved with material removed during the machining process. When the mount is unclamped from the fixture, it can take on a curve that will be removed when it is fully installed.
8. If the receiver screw holes aren't lining up left/right of the mount holes, you may need to drift the front pillar over until they do readily align.
9. Once you have a good fit, remove the mount. Apply a small amount of thread locker around the pillar so it can creep into any gaps between the pillar and the slot it sits in.
10. If you haven't done so already, install the pillar jack screw into the pillar a tighten using a hex wrench. Do not tighten beyond 15-18 INCH pounds of torque.
11. Apply blue thread locking compound onto the bottom of the rail, around the pillar and a small dap onto each of the attaching screws and pillar nut threads. Take care not to over do it as excess can crawl down into the action binding up the bolt keeping the action from cycling.



12. Install the rear sight with its screw, the mid rail screw(s), and the pillar nut only tightening then down lightly, final torquing down will be done once you are assured that everything is aligning properly.
13. If everything looks good fit wise, you can then torque screws and pillar nut to 15-18 INCH pounds. Excessive over torquing can cause damage to screws/nut.
14. Set aside for 15+ minutes before doing any cleaning. Then clean off any excess thread locker using only dry Q-tips.

15. Wipe down any steel parts using a light coating of protective oil to prevent any potential rust issues.

Front Post Installation

(Dovetailed)

1. Check to verify the unloaded condition of the firearm for safety purposes.
2. Remove the factory front, looking to see if there are any indications (small marring or tool marks) to indicate whether it was installed from the LEFT or RIGHT side of the firearm. In most cases sights are installed from the RIGHT so should be removed to the RIGHT and it is recommended that you do so if there are no other indications of installation direction.
3. If the front sight is being fitted into a ramp that is screwed onto the barrel, it is recommended that the ramp be removed from the barrel and clamped into a vise during fitting. This is to prevent excess stress being placed on the attachment screws which can lead to them either shearing off or being pulled out of the threads, stripping the holes.

4. Test fit the sight into either the dovetail of the ramp or barrel the sight is going into, if it goes in at least 1/3rd of the way, try drifting the sight into place. If it does not readily drift into place, remove and file to fit until it does.

5. Drag the bottom of the sight along a file face 2-3 passes and then rotate the sight 180° and file 2-3 more passes. Doing this will help to keep the material removal even across the bottom of the sight. If the pressure you put on the sight is uneven as you make these passes, the material can be removed unevenly and now the sights angled sides are no longer parallel with those of the female dovetail slot. If this happens, until you straighten things out you can find that repeated filing doesn't seem to be allowing the sight to go into the dovetail slot any further.
6. Once you have filed enough so the sight will slip into the dovetail slot at least 1/3rd of the way in, you can then see if it will readily drift all the way into place. If the sight is not readily moving as you are attempting to tap it into place, remove it and make another filing pass or two until it does.
7. On sights that are being fitted into ramps that are screwed to the barrel, you may not want to drift the sight all the way to the center, as you may have to remove it to insert and access one or more of the attaching screws. Install the ramp per the final directions.
8. Drift the sight into its slot and once centered, flow some thread locking compound into the dovetail joint and set it aside for 20 minutes or so to allow it to crawl into any gaps between the sight and dovetail slot.
9. Lightly clean up any excess thread locking compound using only dry Q-tips. Cleaning too soon or too aggressively can pull the compound out of the joint, potentially weakening it.
10. Wipe sights down with protective oil in a light coating to prevent any potential rust issues.

Front Sight Bases: Integral, Standard and Clockable (Integral Base Not Applicable for Henry or Rossi)

XS has several different types of rifle/shotgun front sight bases.

Our Integral Base is a combination front base and blade, that is held onto the barrel by one or more screws. In those that have multiple screw countersinks, sometimes one or more of those countersinks will also be threaded for a plug screw in case that particular countersink is not used in your application. If not used, there will be a plug screw to fill in that countersink. In cases where our front base has multiple countersinks and the factory front was held onto by only one screw, use the middle most counter sink in our base and also consider having a gunsmith drill and tap a second screw hole.

XS® SIGHTS
FASTEST SIGHTS IN ANY LIGHT™

Our Standard Base is a fairly common dovetailed front sight base that has one to two screw countersinks. The dovetail in the base is a 3/8ths dovetail used by many aftermarket sight makers like William's, Lyman and Marble's.

Our Clockable Base is unique to XS in that it is designed to solve the issue of not being able to adjust the rear sight for windage enough to zero. The usual culprit is that when the barrel was installed in the receiver, the front sight screw holes were not clocked so they were perpendicular to the receiver 12 o'clock. It doesn't show up when using a barrel mounted rear sight since both front and rear are "off" together. The screw countersinks are oval which allow you to shift the whole front sight unit 2° Left/Right for even more windage adjustment that what you also get by drifting the front sight in its dovetail.

Installation Instructions, Integral, Standard & Clockable

1. Remove existing base, this may require removal of the dovetailed in front sight as on some bases there is a screw under it.
2. Clean off the barrel surface under the ramp if needed to remove any glue or thread locker that has hardened onto the barrel surface. Also scrape down in the screw holes using a small screwdriver blade or dental pick to remove any thread locking compound that has hardened down in the hole which may not allow our screw to fully seat.
3. Before applying any thread locking compound, test fit the unit to the barrel to ensure that it will seat down properly onto the barrel. If it doesn't then either the screw will need to be shortened a bit or possibly the holes tapped to ensure that threads, go all the way down to the bottom of the hole or the screws shortened (see Shortening Screws).
4. On our Integral front, you may need to plug one of the screw countersinks using the supplied plug screw. Some rifles will only have a single attachment screw hole and on those the plug screw will be threaded into the front countersink. On others, two screw hole spacings have been used and on these 3-hole bases, the plug screw will thread into the unused screw countersink. The screw has a slot on its tip and so is run in before the unit is attached to the barrel.
5. With our Integral front, you can now apply thread locker to the bottom of the base and some onto the threads and install it, tightening the screws down to 12-15 INCH pounds of torque. If you don't have a torque tool, then

tighten them down until snug and fully seated and then no more than 1/8th of a turn more. It is easy to over torque these screws which can lead to them being stripped out.

6. With all other bases, hold off use of thread locker and installation as you may want to do the front sight fitting into the base dovetail with the base off the barrel. Driving the sight into the dovetail puts a large amount of sideways force onto the screws which can lead to them being pulled out of their holes ruining the threads. See FRONT POST instructions to complete the installation.
7. Once the front post has had its fitting done, apply thread locker to the bottom of the base and some onto the threads and install onto the barrel.
8. If using one of our clockable bases, if you don't need the added windage then make sure the screw heads are centered in the screw countersinks before tightening down. If you do need the additional windage, then install with the unit pushed to the LEFT to shift your point of impact to the RIGHT, and the reverse to go LEFT. It is the opposite of how you shift the rear sight when adjusting for windage.
9. You can now tighten the screws down to 12-15 INCH pounds of torque. If you don't have a torque tool, then tighten them down until snug and fully seated and then no more than 1/8th of a turn more. It is easy to over You can now tighten the screws down to 12-15 INCH pounds of torque. If you don't have a torque tool, then tighten them down until snug and fully seated and then no more than 1/8th of a turn more. It is easy to over torque these screws which can lead to them being stripped out.
10. Let sit for 15-20 minutes and then lightly remove any excess thread locker using only dry Q-tips. If you clean too soon or too aggressively, you can remove a surprising amount of the thread locker from the joint which can weaken the installation.
11. Wipe sights down with protective oil in a light coating to prevent potential rust issues.

Fixing Loose Fit.

1. Should you find for one of several reasons that the sight is loose in the dovetail slot, you can crimp the dovetail down some to get enough mechanical fit to allow for a solid installation.
2. Using a steel punch with a smooth face that is ¼ to 3/8ths in diameter, place the nose of the punch on one of the female dovetail overhanging edges keeping the punch centered (left to right) on the dovetail. Lightly strike the punch with a hammer to push down the overhanging edge. Then repeat on the opposite dovetail overhanging edge.
3. Do this until the sight either has some interference with the dovetail or needs tapping into place. Install centered and apply the thread locking compound as detailed above.
4. By keeping the punch only on the center portion of the dovetail, any minor marring of the barrel or ramp will be hidden by the overhang blade section of the front sight.

How To Shorten Screws Just a Little

Every now and then during a sight installation, usually a front sight or ramp installation, you will find that the screws, when tightened down, have not pulled the front sight down tight against the barrel. This can be from a variety of factors, most commonly the threads in the hole were not tapped to their full depth due to wear on the thread tap. Short of having the correct tap and skills to tap threads deeper, your best option is shortening the screw the ½ to 1

thread that this usually requires. Shorter screws aren't a good option as screw sizes are different enough one length to the next that the next shorter length will be so short that you won't have any threads engaged.

1. The hole in the end of a hacksaw blade is just the right size for the threads of a a #6-48 or #8-40 screw to slip through but not allow the screw head to slide through.
2. Flip the blade/screw upside down trapping the head against a non-marring work surface with the threads point up.
3. Now using either a fine file or a carefully wielded Dremel tool using a grinding stone, dress off the end of the screw the ½ to 1 full thread that will be required for the installation to fit snugly.
4. Removing material off the end of the screw can leave a burr at the thread beginning that may need to be removed before the screw will start into its hole.
5. Work carefully removing only what is required, testing repeatedly until you have removed only what is required.