



**NEO-X**

NEO-X is designed for those who want the best front rest yet. It combines the winning features of my previous rests from NEO's rapid elevation adjustment, MINI-X's lightweight and compactness, MAX's extra wide top, and several new innovative features.

This rest is completely different from the standard NEO. Most of the components are new and incompatible with all my previous rests (NEO/MINI/MAX). Only the top, bag, stopper, and joystick of the NEO-X can be used on the NEO/MINI/MAX.

The rest is shipped in compact mode with the legs folded. The leveling screws can be removed and reinstalled quickly with a removable insert. (F-Class feet is an optional item, only available on request).

In compact mode, it is 6" thick x 14" wide x 10.5" tall with the carrying handle on the top. When the legs fully open, the base has extra wide footprint 16.5" CTC side to side and 14.5" CTC from back to front. \*(CTC=center to center, of the leveling screws).

NEO-X weighs approximately 8.4 kgs (18.5 lbs) complete with the joystick, the carrying handle, and the driver.

Rest is shipped with the front bag empty. You will need to fill the front bag with sand, by yourself. Sand could be different from place to place, please use what you think or find works best for you.

### CAUTIONS

Please read the manual (and the exploded drawing) before use.

Do not change the initial setting if not really necessary.

Please use the towel provided to cover the rest during hot day or dusty condition.

Please keep the rest clean after use, put it back in the case or a safe place and away from any collisions. Store the leveling screws (and/or the F-Class feet) in the provided small bags to avoid scratches etc.

NOTE: I recommend to twist the joystick for two or three full rotations and move the joystick in rapid circular motions (any directions) before use. This will release the initial friction in the bearings mechanism and will make the joystick action even smoother.

### FEATURES

The top can swivel 360 degrees, can accept up to a six-inch wide fore end, and can be locked rapidly and securely from either side.

New front bags are rapid-change and easier to install without any screws/tools.

Folding and self-locking legs for compact storage. There is an innovative "insert nut" (#9) which allows the leveling screws to be removed and installed rapidly and securely.

Standard configuration is elevation knob on the left hand side and single leg in the front toward the target (**Option #1**). This is the standard configuration for right handed shooters.

With request the NEO-X can be ordered with **Option #2**, i.e. elevation knob on the right hand side and the single leg in the front. This is mostly for left handed shooters.

Two shooting configurations per option would give the user a total of 4 (four) different rest configurations.

NEO-X has a new and more refined internal mechanism which give extra smooth joystick action. The tension adjustment is also easier.

Larger joystick travel. It will also cover the air rifle and rimfire targets.

Lowest setting is at 5.3", highest setting can be over 12". Measured from the bottom of the base to the top of the front bag where the stock rides on.

Equipped with a carrying handle on the top. The joystick and the driver come attached on the carrying handle (with a pair of clip-on Delrin) for more organized storage. This also minimize the chance of losing or forgetting to bring both handles. It's also safer to transport the rest because the end tip of the leveling screws is facing the ground. When twisted to shooter's side (either side) it can be used as cartridge holder, or a tablet holder, or spotting scope holder, with a little modification or extension.

A hex tip driver allows the user to rotate the handwheel and raise the top up and down from afar allowing rapid elevation adjustment without having to reach for the front rest.

Rest can be reversed with the single leg in the front toward the target, or at shooter's side.

Joystick can be operated in normal mode (up for up, etc.) or in reverse motion (up for down, etc.).

Aluminum F-Class feet 3" would be available on request, for those who seek a light rest.

Joystick extension 3", 6", 9" or shorter joystick would also be available on request. BR feet with neoprene underside (3" disc) would also be available on request

The NEO-X is available in Raw (mill/polish finish), All Black, All Blue, All Red, or combination of Blue-Black, Red-Black, Orange Gold-Black. Some components remain in raw / polished finish.

Small bubble levels are added on the top/side plates, a circular bubble level is also placed in the center of the base. These bubble levels only act as an "aid" to level up the base/rest. Sand in the front bag could shift during firing and the bubble level on your rifle/scope might not match with the bubble levels on the rest. Please trust the bubble level on your rifle/scope instead of the ones on the rest.

### PREPARATION

Legs will open out by pulling the leg button and twisting the leg to the desired position. The small buttons will lock the position of the leg automatically and securely.

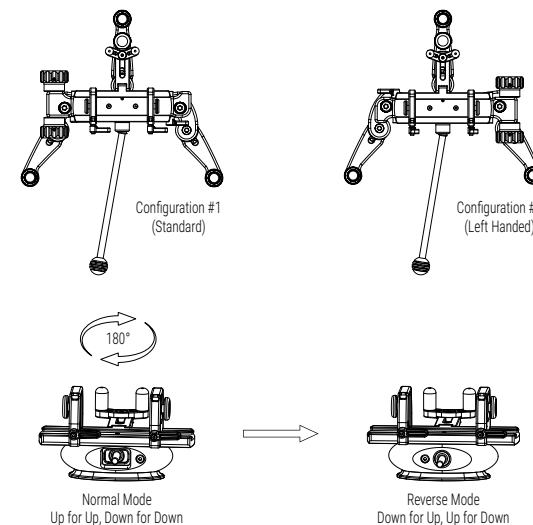
The 'ready to use' rest is with the single leg (#3) set in the center. The left & right leg (#2 & #4) can be set parallel (open 90 degrees) or fully wide open (120 degrees), or a combination of both according to your need and available space.

For Benchrest shooting, using BR feet is recommended. Leveling screws can still stay on each leg when storing. Ensure that the end tip does not protrude from the base of the legs.

For F-Class it could be easier to store the leveling screws along with the F-Class feet in place.

The end tip of the leveling screws is turned with a little radius (not sharp) to avoid accidents when transporting the rest, as well as to avoid damaging the top of the bench. A slight concave shape on the leveling screw allows the F-class feet to be tightened without the set screw damaging the thread. A simple trick that works well.

Ensure to tap down or settle your front rest, rear bag, and rifle. Move the gun back and forth to check for alignment etc.. Then set the joystick in the middle of the travel and on the bottom of the target. This will give you a perfect setup / allow you to have enough "room" vertically & horizontally during firing string.



### RAPID ELEVATION ADJUSTMENT

The rack and pinion system with new cross-gear mechanism allows the user to adjust the height of the rest easily and rapidly from either side, either by hand or using the driver such as when shooting prone with extra-long stock.

You might need to lock the bridge using the vertical lock lever once the height is set. You could lock the pivotal top (using the rotational lock lever) once the angle is set. Or you could just leave them unlocked when shooting.

## TENSION ADJUSTMENT

The joystick action of this rest can be adjusted from very light to a bit stiff, rapidly and easily. Use the provided 4mm Allen driver with black Delrin handle.

One tension screw facing the shooter in 'normal mode' (up for up) is for the vertical friction. Another screw at the opposite side is for horizontal friction.

Deeper set screw (turning clockwise) = more tension. Think about a few 'clicks' on your rifle scope (one at a time) when adjusting.

## UPLIFT SPRINGS ADJUSTMENT

There are 2 uplift springs that can be accessed from the bottom of the oval shaped body/disc. These uplift springs act like a counterweight, to give upward force and counter-balance the weight of the rifle.

Deeper (turning clockwise) = more upward pressure.

### \*Important info to notice:

These headless Allen screws can only be turned in as deep as a maximum of 4 mm, do not go deeper because it would restrict the vertical travel of the joystick.

I recommend the use of counterweight (with specific weight) for rifle heavier than 30 lbs.

Use the 4mm Allen driver provided, for easier adjustment or installation.

## REST TOP

Improved top with one piece alum block. It is generally better than ever, and now much easier to install the front bag. Reference marks of 2", 3", 4", 5" are added on the top for a symmetry setting up.

Improved side plate, front bag, and stopper as well.

## FRONT BAGS

The standard will be the two piece bags / pair of "L" shape sandbags / three-piece bags configuration. Optional hard sides Delrin block with slick Teflon sheet on the sides + bottom sandbag for F-Class.

Three-piece bags or one-piece front bag for Benchrest competition will be available on request / when ordering.

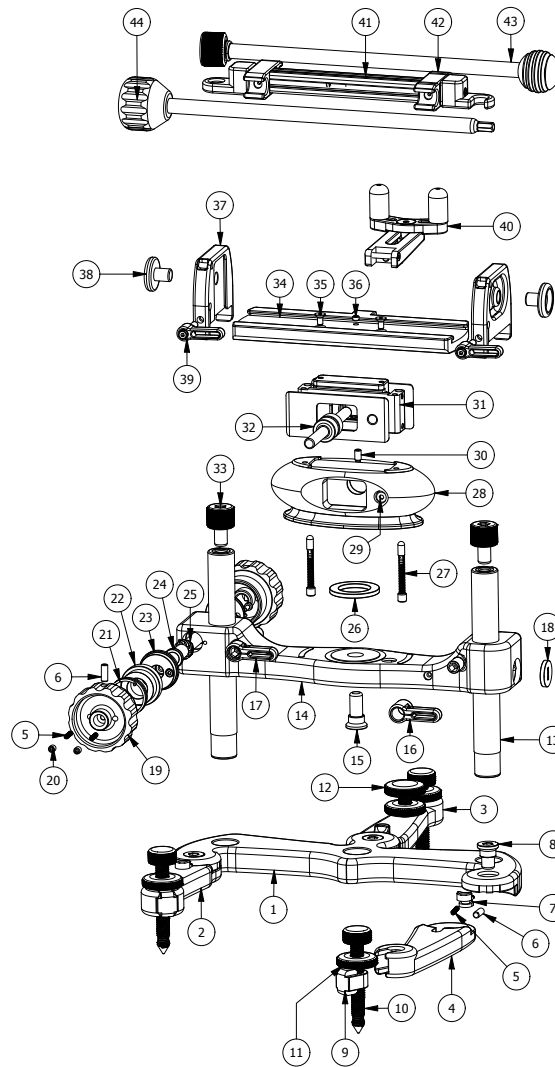
The new front bag design would only work for specific stock width (2-1/4" or 3", 4", 5" or 6").

This front bag will not allow the stock to be squeezed down or get bitten in between the side bags and the bottom bag.

Thank you for choosing the NEO-X!

seb

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|--------------------------------------|--|-------------------------------|
| 1. Main Base                         | 16. Swivel Top Lock (removable)                          | 30. Set Screw M6 x 10         |
| 2. Left Leg                          | 17. Bridge Vertical Lock (removable)                     | 31. Internal Sliding Plates   |
| 3. Single Leg                        | 18. Side Cover   | 32. Center Shaft              |
| 4. Right Leg                         | 19. Hand Wheel   | 33. Top Post Screw            |
| 5. Compression Spring D4 x 15        | 20. Set Screw M6 x 4                                     | 34. Rest Top Plate            |
| 6. Set Screw M6 x 16                 | 21. Coupling Spring                                      | 35. Countersink Screw M5 x 4  |
| 7. Leg Button Lock                   | 22. Bronze Brake Drum                                    | 36. Plug Screw M6 x 4         |
| 8. Leg Bolt M12 x 1.75               | 23. S/S Disc   | 37. Side Plate                |
| 9. Insert Nut (removable)            | 24. Bearing 12 x 16 x 4                                  | 38. Side Tension Screw        |
| 10. Leveling Screw                   | 25. Cross Helical Gear                                   | 39. Adjustable S/S Lever Lock |
| 11. Counter Nut                      | 26. Center Needle Bearing                                | 40. Stopper Set               |
| 12. Extra Short Screw (spare for BR) | 27. Up-lift Springs                                      | 41. Carrying Handle           |
| 13. Rack Gear Post                   | 28. Oval Head Unit                                       | 42. Clip on Delrin Holder     |
| 14. Bridge / Carriage                | 29. Tension Screw Vertical (Horizontal on opposite side) | 43. Joystick w/ Angled Head   |
| 15. Bridge Center Bolt M12 x 1.75    |  | 44. Hex Driver 8mm            |



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