

HUMA-AIR

Market Leader In Accuracy

Precision Control Trigger

(PCT system for FX Impact MK2 & M3)



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1. Introduction

Thank you for choosing our product! We are glad you chose our PCT system for your FX Impact M2 or M3. We trust it will meet and exceed your expectations and we appreciate your trust and support. Because a trigger is a delicate and complex adjustable tool, we have create a elaborate manual, to answer all of your questions.

2. Safety

NOTICE – After each adjustment always double check that the trigger pull is safe to avoid accidental discharge.

Take caution in safely adjusting and testing your trigger with an **UNLOADED** rifle. Always point the rifle in a safe direction while adjusting the trigger. Never rely on the trigger or safety when pointing your rifle at any target. And, always test the rifle thoroughly following any adjustments to ensure safety and reliability. *Huma-Air cannot be held responsible for damage to the rifle or any other collateral damage caused by incorrect settings of the trigger. Please use common sense and think before you act.*

NOTICE – All adjustments work in relation to one another.

Adjustments to one screw may impact other aspects within the trigger system. Although we strive to preset the trigger to a base setting, ensure the proper function to your rifle after installation.

 **WARNING!** (S1)

Danger of injury by accidental discharge!

Accidental discharge and malfunction can be caused by minimal setting of trigger weight; a too small first stage travel; a too small sear engagement; a too short overtravel setting or the safety screw not set correctly.

After installing and adjusting your new PCT system, its mandatory to check if all settings and functions are working properly. The unloaded/uncocked FX Impact can be placed on its right side with the barrel pointing in a safe direction. Functiontesting can be done by applying as little pressure on the cocking lever to not influence trigger pull, but making sure that the cocking lever cannot slip out of your fingers. Make absolutely sure that you never pull the trigger while the lever is in midway travel. This can permanently damage several rifle parts.

3. Content

The PCT unit should contain the following components:

- Triggerbase (incl. screws and bearings)
- Triggersear (incl. screws)
- Triggerroll (incl. screws)
- Three Springs
- QR-code for this manual.



If any of these parts is missing, please contact Huma Air.

4. Removing the original trigger components.

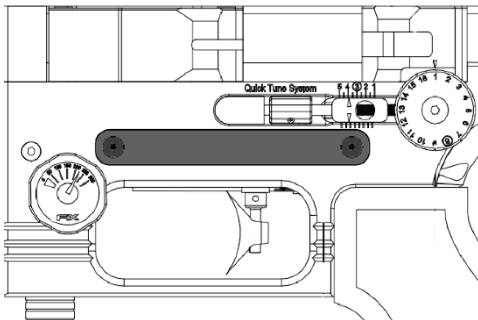
Before installing your new PCT unit, you have to take out the original trigger parts first. In following paragraphs we will explain in steps how to do that. Make sure you use quality tools to prevent damage to the gun or its parts. Always keep the safety instructions in mind, as explained in earlier mentioned 'safety' paragraph.

Step 1: Arrange a clear working space as explained in warning S1.

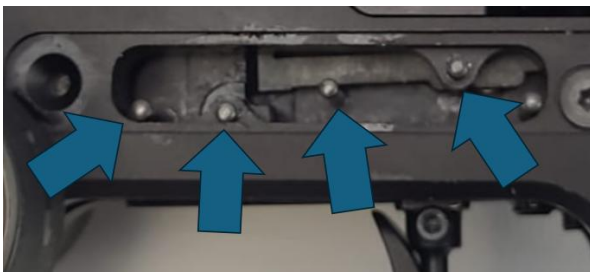
Step 2: In case a scope or other type of optics is mounted on the gun, take it off following the scope/mounts manufacturers instructions. This way the gun can be placed upside down on the scoperail, with the trigger pointing up.

Step 3: Take off the trigger guard of the gun, as explained in the FX instructions using a 2,5mm Allen key.

Step 4: Lay down your unloaded/uncocked FX Impact on its right side with the barrel pointing in a safe direction, with the trigger window facing upwards. Take off the coverplate, using a 2mm Allen key:

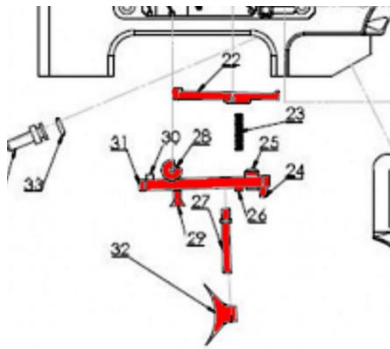


Step 5: Take out the dowel pins marked with the arrows, using needle nose pliers. Take care not to damage the pins

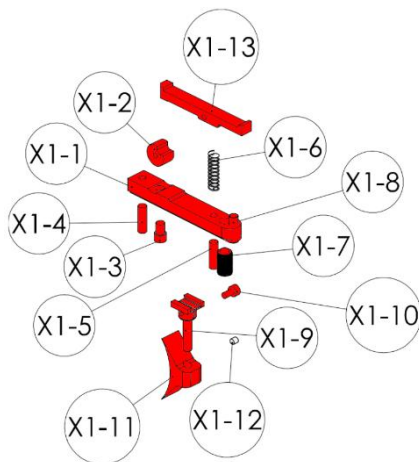


Step 6: Carefully take out the trigger parts. Start with the triggerbase (31 / X1.1) with all its content, and end with the triggersear (22/X1.13). Make sure you don't lose any springs.

FX Impact MK2 trigger parts to be taken out:



FX Impact M3 trigger parts to be taken out:



The gun is now ready for installing the Huma Air Precision Control Trigger.

5. Positioning and adjusting the trigger pin

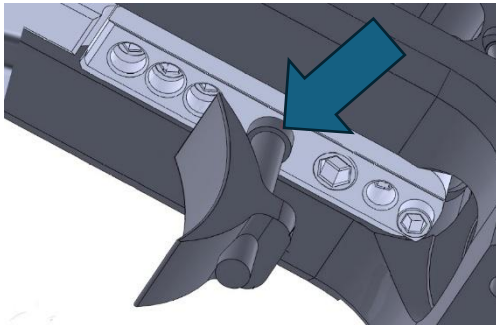
Before inserting your new Huma-Air PCT unit into your FX Impact, we recommend installing the trigger pin MK2/M3 to the PCT unit in such a way that it does not interfere with the adjustment screws. For initial adjustment we recommend to leave of the trigger blade in order to have easy access to the adjustment screws

FX Impact trigger pin installation

Our trigger base has a milled in dovetail as well as a threaded hole to accommodate both the MK2 (nr. C27 - FX19613) as well as the M3 trigger pin (X1-9, X1-10; FX10346, FX19178). whereon the FX trigger shoe (C32; X1-11) can be installed.

The threaded hole for the MK2 trigger pin is positioned at approximately the same place as the MK2 in reference to the trigger guard. The trigger pin on the MK2 may be loctited, some careful heating may be necessary to soften the Loctite. Make sure you degrease the hole before installing the trigger pin to the HuMa-Air PCT unit.

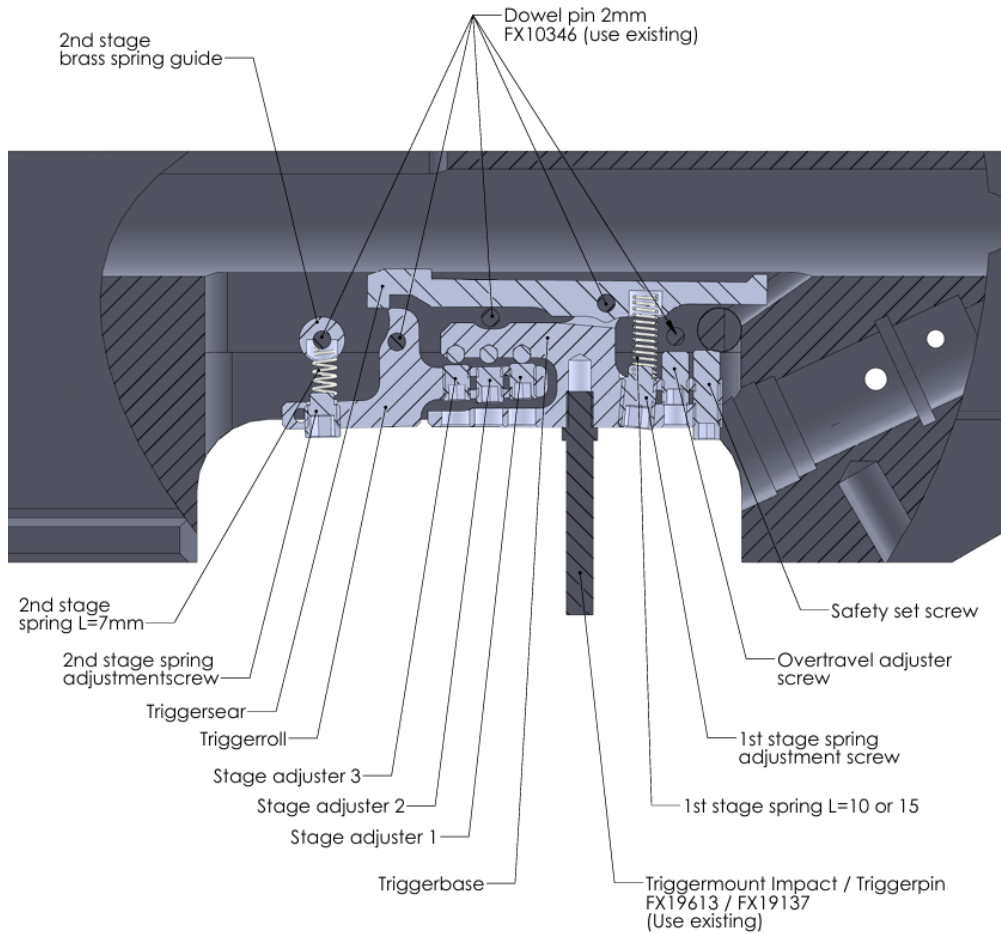
<https://huma-air.com/loctite-2400-threadlocker-adhesive-5-ml/>



6. PCT system explanation

In this section we show you all the parts that are involved in your new FX Impact Huma Air PCT system. Take note in how the system works. Should you find this unclear, please seek help from your local gunsmith or certified airgun specialist or send us a message.

PCT overview and Parts diagram:



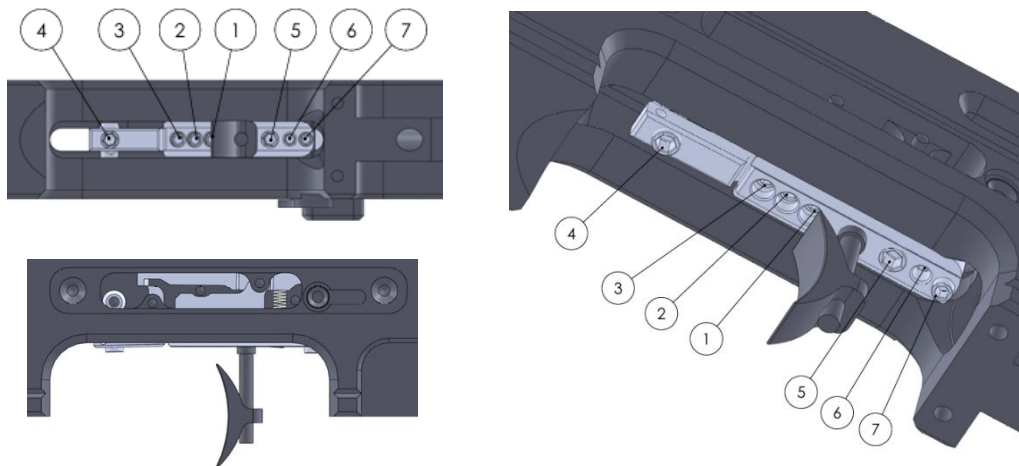
7. Setup & purpose of use

Before starting up with your new PCT, you need to know for what purpose the rifle is going to be used. For example for:

- Hunting - you should choose a more firm weight release (less sensitive fingers with cold weather, wearing gloves, etc.).
- Benchrest / 100y target practice / Field Target / Long range slug shooting (and the indirect barrel harmonics caused by trigger-pull must be pushed to a minimum) we recommend a light weight setting.

This is a personal choice and will depend on your personal preference.

Explanation of functions:



- 1 Release adjustment in combination with stage adjuster 2 or 3. **(Caution!)**
- 2 Release adjustment in combination with stage adjuster 1 or 3. **(Caution!)**
- 3 Release adjustment in combination with stage adjuster 1 or 2. **(Caution!)**
- 4 2nd stage weight adjustment (CW to increase/CCW to decrease weight*)
- 5 1st stage weight adjustment (CW to increase/CCW to decrease weight *)
- 6 Overtravel adjustment (CW to increase/CCW to decrease travel *) **(Caution!)**
- 7 Safety

*CW = Clockwise CCW = Counter Clockwise

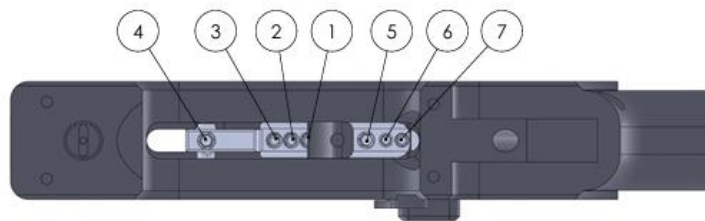
There are **3** different combinations possible for the engagement between the 'trigger base' and the 'triggerroll', causing different release weights for most purposes:

- A** Stage adjuster combination **screw 1 & 2** (lightweight release/Benchrest/Field target)
- B** Stage adjuster combination **screw 2 & 3** (middle weight release/Match/PRS/Hunting)
- C** Stage adjuster combination **screw 1 & 3** (solid weight release/Hunting/Plinking)

NOTICE – The PCT-units do not come preset, but is delivered in the “zero state”. Before installation we recommend you consult chapter 8, 9, 10 to preset the adjustments before installing. We recommend you begin with the **C** setting. This will give you the setting with the most trigger pull. That way you can familiarize yourself with the function of the HuMa-Air PCT unit.

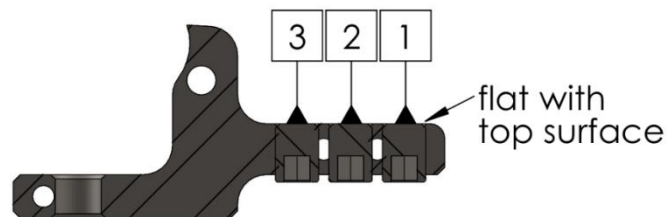
8. Process of setting the trigger

In the following explanation, we try to cover the steps that need to be taken for adjusting your PCT-unit towards the A/B/C combination setups.



Step 1:

Leave the trigger base in and try and squeeze out the triggerroll from in-between the trigger base and M3 trigger block. For adjustments, always use good-fit quality Allen-keys. First turn all the stage-adjuster screws from the trigger roll flush with the top of the trigger roll stem, as shown:



This is a ‘zero’ setup. None of the stage adjuster screws should interfere with one another at this point. From here we start to adjust for the chosen combination setup, there should only be two adjuster screws that create the trigger function.

Step 2:

With the pictures on the following page we show you the stage-adjuster positioning with measurements and the amount of Allen key turn increments, per combination setup. This way the user can either adjust and measure with a calliper, or adjust to amount of rotation (when no calliper is available) and will come closest to a proper setup. After this is done, we want to refer to chapter 'PCT adjustments'.

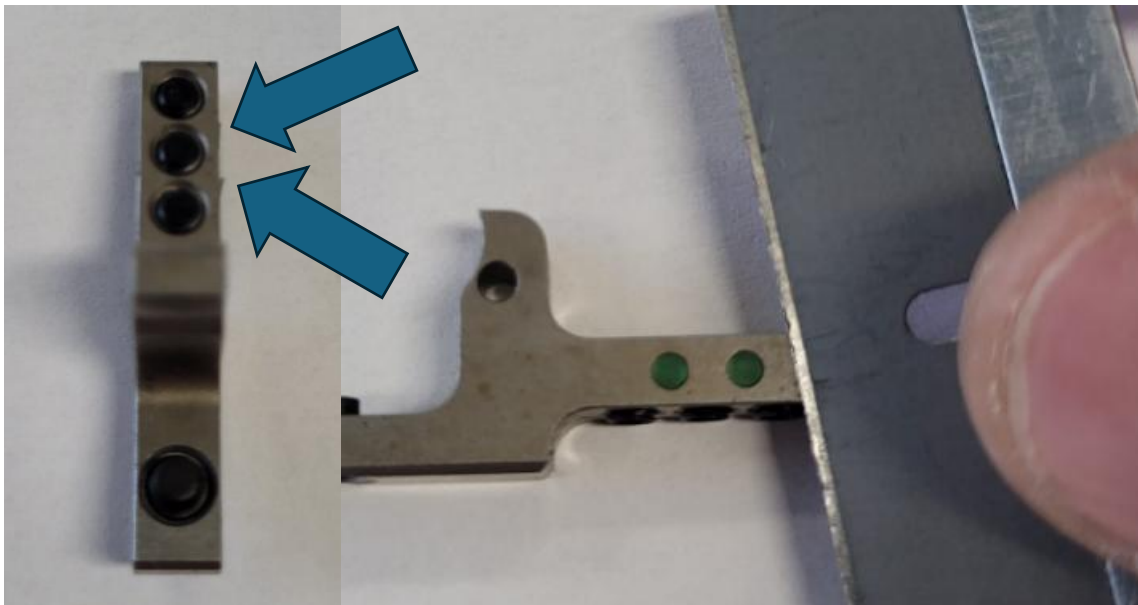


When the trigger pull is to your liking it is very important to set the safety set screw so the safety functions with the least amount of first stage travel. This will ensure a proper engagement of the trigger sear to the trigger roll in the safe position.

NOTICE – It's preferred to use quality Allen keys. The screws are held tightly against rotation by Nylon string which negates the need for glue or Loctite. Although this Nylon string will hold wear with quite some adjustments, it is recommended that the screws are going to be set with the least amount of turning, to save lifetime of the Nylon string. In case you notice the resistance is getting less you can use Nylon grass trimmer string of 1,6mm (1/16th inch) to replace them.

Before inserting the trigger parts you may want to check if the above mentioned Nylon tensioners have not been pushed slightly past the sides of the triggerparts by the adjustments made.

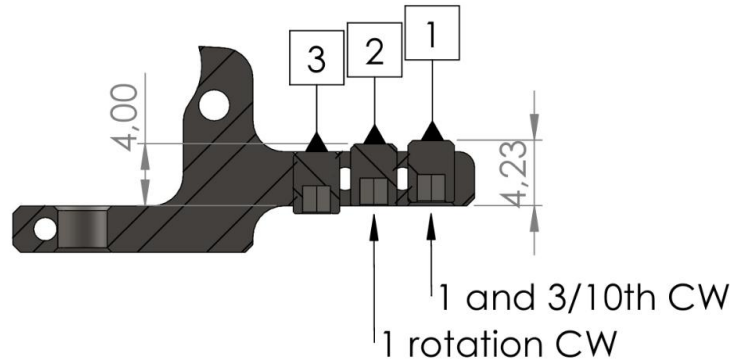
If that is the case you may want to trim them so not to snag on the side of the action.



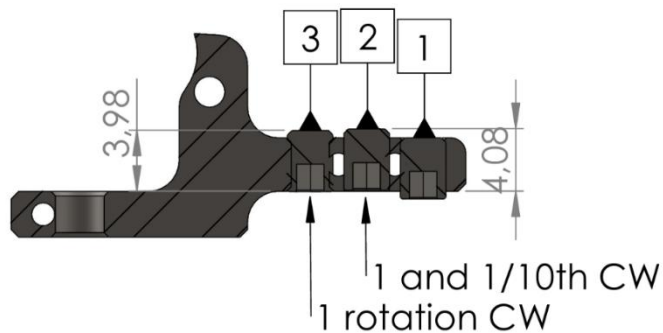
9. PCT global reset starting indication for FX Impact **M3**

* CW = Clockwise CCW = Counter Clockwise

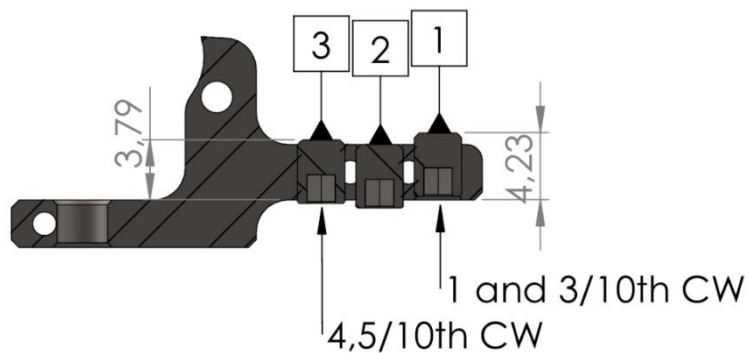
A Stage adjuster combination **screw 1 & 2** (light weight release/Benchrest/Field target)



B* Stage adjuster combination **screw 2 & 3** (middle weight release/Match/PRS/Hunting)



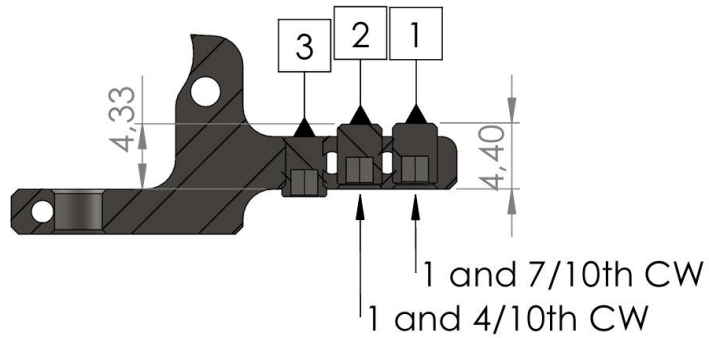
C Stage adjuster combination **screw 1 & 3** (solid weight release/Hunting/Plinking)



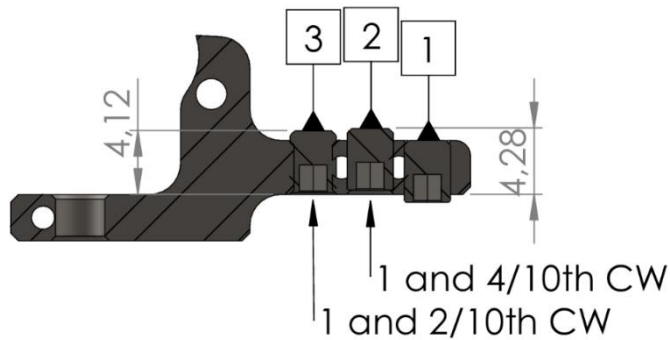
10. PCT global reset starting indication for FX Impact **MK2**

* CW = Clockwise CCW = Counter Clockwise

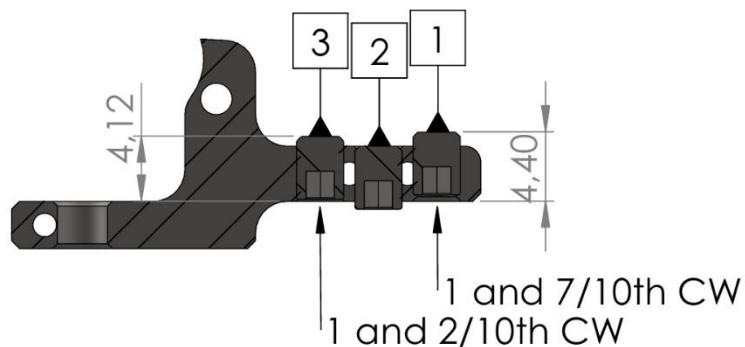
A Stage adjuster combination **screw 1 & 2** (light weight release/Benchrest/Field target)



B* Stage adjuster combination **screw 2 & 3** (middle weight release/Match/PRS/Hunting)



C Stage adjuster combination **screw 1 & 3** (solid weight release/Hunting/Plinking)



11 Installing the Huma Air PCT

At this point the MK2 main block / M3 Trigger block is empty from trigger parts. All the dowel pins are sequentially positioned so they are easily accessible and can be placed in the correct order. The gun is on its right side with the side window facing up.



Step 1: Take the triggersear and the triggerbase and remove the spring adjustment screw of the 1st stage so there is no tension on the parts. Apply a little grease (ballbearing grease for instance) on the contact area's where both parts interact with eachother.



Step 2: Carefully slide both parts as an item into the MK2 mainblock / M3 trigger block until the pin holes line up with dowel pin. Push the dowel pin with the chamfered side down into the hole. Also insert the dowel pin that limits the hammer sear travel.



Step 4: Choose either the 10 or 15mm 1st stage spring and slide it over the small tab of the adjustment screw. Now screw it into the triggerbase making sure the spring seats well in the triggersear spring recess.

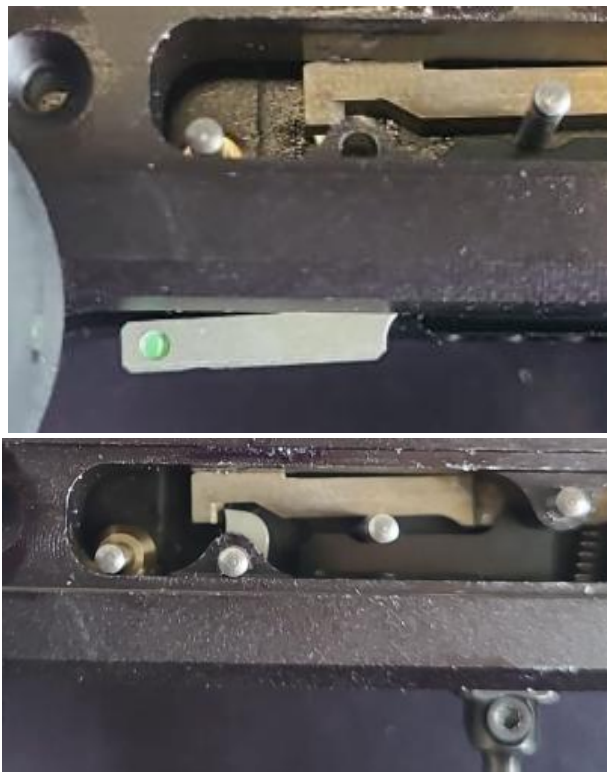


Step 5: Take the 2nd stage brass spring guide and clamp it within artery clamp or needle nose pliers, facing the spring hole towards the plier hand. Carefully position the part within the trigger recess, making sure the lip is against the recess base as shown in the illustration.



Line the part up with the dowel-pin holes. Push the dowel pin in with the chamfered side down the hole. Carefully push the dowel pin down until it is fully seated.

Step 6: Take the triggerroll and take out the 2nd stage spring adjuster screw completely. Pull the triggerbase backwards (like you do when taking a shot). Hold it in 'pulled' position. Now you can slide the triggerroll in between all installed parts. Again, line the part up with the dowel pin hole and place in the dowel pin, (repeating the process as previously explained).

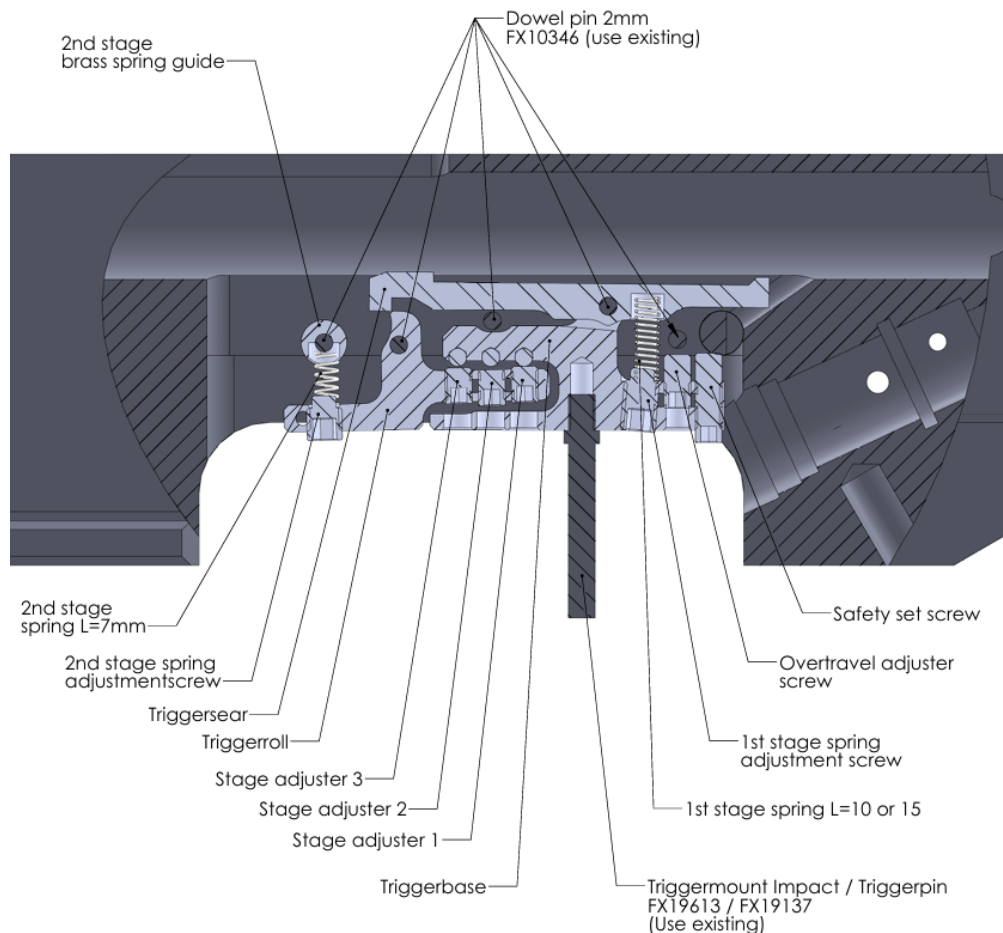


Step 7: Secure the 7mm 2nd stage spring to the screw and mount it to the triggerroll making sure it spring seats well in the brass spring guide.

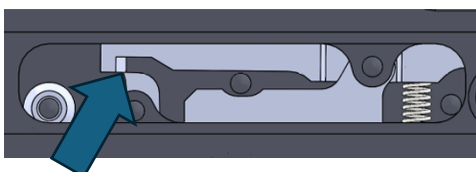


12 PCT adjustments

After installing the PCT system, the **C** setting 'should' give you a starting point from which you can adjust to your personal preference. In the following paragraph we will explain how to adjust the trigger.



When the 'trigger sear' and 'trigger roll' are 'just' latching, make sure you screw in stage adjuster 2 or 3 (whichever is the functional stage adjuster closest to the rifle grip) CW with 1/10th of a turn each time, in-between checking the sear engagement with the cocking lever as earlier explained in **WARNING S1**. Do this until the trigger sear won't latch behind the point of the triggerroll anymore after pulling the trigger. You can check this visually within in the side window of the MK2 main block/M3 trigger block like shown:



After this is done, you need to turn the same stage adjuster (2) back out (CCW) with 1/10th of a turn each time, until it latches. When this occurs, turn it out a bit more with an extra 3/10th of a turn CCW and then back 1/10th CW to make sure it's properly latching and the thread of the screws are well engaged.

NOTICE – *when a rifle is cocked, it should never go off when knocking the rifle firmly by hand against the back or bottom, or bump the rifle with the buttstock against a rubber surface (not to damaging the rifle), keeping safety precautions at all times. If the rifle falls down, it should never accidentally go off. This is very important, especially when shooting dynamic sports like PRS or field alike competitions. That's why we recommend to always keep the first stage in.*

Within the PCT design, the triggerbase (ballbearing extention) is pushed flush against the 2mm dowel pin (FX10346) that is positioned inbetween the triggersear and the triggerbase, right above the stage adjuster screws. Only when the first stage travel is pushed all the way through up to the 2nd stage pressure point, the rifle becomes fire sensitive. Although this design reduces the ability to adjust the first stage travel, this is a moral chosen aspect to keep the safety within the first stage travel. This way there is less chance for the rifle to go off after accidentally dropping or knocking. The available travel is the best average for most shooters. This way it only becomes sensitive after pushing through the first stage travel. The PCT is designed to get the best crisp output pressure, without the need of taking out the first stage.

Once the trigger is set to the shooters wishes, it is worth checking the setting after doing several shots. Once you cycle the rifle a few times, the trigger will bed-in and some adjustments may change ever so slightly.

After getting the preferred setting, you should always test the setting by shooting, taking all safety precautions.

The triggerguard and side window cover can be mounted back on the MK2 mainblock / M3 triggerblock.

13 Warranty and support

Please see our general terms and conditions for our warranty terms

<https://huma-air.com/app/uploads/2024/10/Terms-and-conditions-Huma-air-by-Engels-Dutch.pdf>

For any support you can contact us through our contact page.

<https://huma-air.com/contact/>

Enjoy your PCT trigger unit and shoot safely!

