

Trigger Group (PN 04.100) for

- **PN 04.100.1**
Kal. 9x19 / 9x21 (.40S&W) with Beretta 92 (Series 90) magazine

- **PN 04.100.2**
Kal. 9x19 / 9x21 / .40S&W / .45ACP with Beretta PX4 magazine

The trigger group is 100% “Made in Austria“ and was developed to eliminate shortcomings of the original trigger group. As a result, the trigger group offers the following benefits:

- ➔ Robust design with all steel and Aluminium components reduces the risk of damage or breakage associated with the original plastic components – especially the housing and the hammer – significantly.

- ➔ Due to the material induced stiffness of the components any deformation during a trigger pull is practically eliminated resulting in a more even distribution of the trigger pull weight (force) along its travel until the shot breaks.
In addition to the more even trigger characteristic the maximum trigger pull weight (force) and trigger travel could be reduced on average by 25%*. Comparative measurements with the *TriggerScan* measuring device showed the total trigger energy is reduced by a third i.e. the shooter on average has to expend 1/3 less travel and 1/3 less force overall to fire one round.

The set-up of the trigger pull weight (force) and travel is also chosen based on considerations for the overall safety and the functional reliability for the use of a wide variety of ammunition and small pistol primer brands, provided a certain quality standard of ammunition maintained.

In terms of the basic function the TECTAL trigger group maintains the same operating mechanism as the original assembly. This was done to retain 3 important safety features (trigger cross-block safety, firing pin safety, out-of-battery safety).

The trigger group does not contain a hammer safety. As such it is designed for sporting use only!



** Based on comprehensive prototype, pre-series and series testing, provided that cleanliness and lubrication of the components is maintained. A short break-in period may be required.*



Scope of Supply:

- 1 pc. Trigger housing with pre-installed sear
- 1 pc. Hammer with pre-installed hammer spring, light
- 1 pc. Trigger spring, light
- 1 pc. Firing pin spring, light (not shown)
- 1 pc. *Trigger PN 04.102, depending on the version ordered (see below)*

Available versions of the trigger group:

For Beretta 92 (Series 90) magazine:

- **04.100.1A** ... 9x19 / 9x21 (.40S&W), including 1 pc. Trigger *PN 04.102* (shown above)
- **04.100.1B** ... 9x19 / 9x21 (.40S&W), excluding Trigger *PN 04.102*

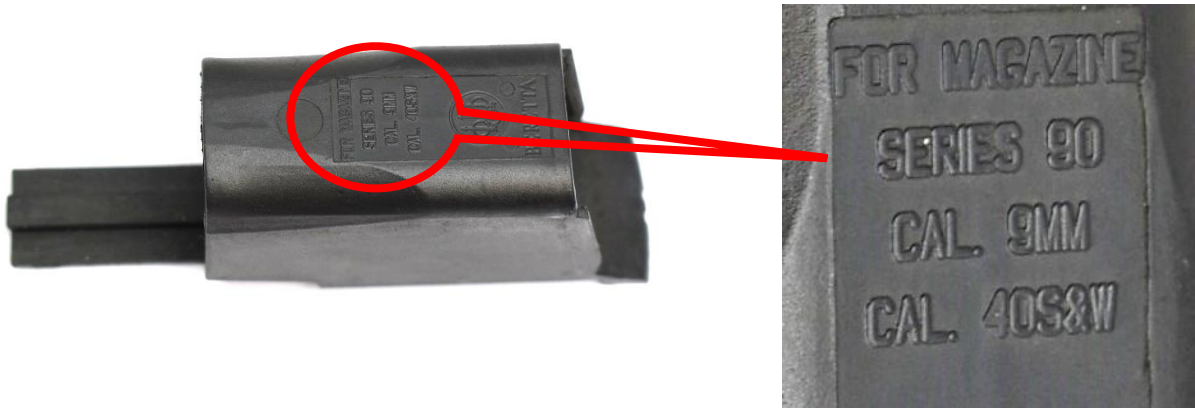
For Beretta PX4 magazine:

- **04.100.2A** ... 9x19 / 9x21 / .40S&W / .45ACP, including 1 pc. Trigger *PN 04.102* (shown above)
- **04.100.2B** ... 9x19 / 9x21 / .40S&W / .45ACP, excluding Trigger *PN 04.102*

Identification of the magazine type:

If not know, the magazine type for which an individual CX4 ist set up can be determined by the following characteristics:

- Marking on the magwell insert (see sample picture)



- Magazine shape and dimensions

Tools required for installation:

- Drift punch 2mm (2,5mm)
- Tool with a flat blade – preferably made of plastic

Additionally required parts from the original trigger group to complete the installation:

- Trigger bar
- Firing pin catch lever
- Bolt stop
- Pins
- Spring clip for the manual safety (trigger cross-block safety)

IMPORTANT NOTES *before* installation:

- The installation requires partial disassembly of the gun and complete disassembly of the trigger group. It is strongly recommended to have the installation done professionally by a gunsmith familiar with the weapon!
- As the original instruction manual does not include a parts diagram use the reference on p. 7 and if required electronically available resources to identify the parts.
- The installation / use of the original hammer spring is NOT permissible to prevent damage to the trigger group and/or to the gun!
- The use of the original trigger is not recommended to ensure the best possible improvement!
- For optimum function and to reduce wear proper lubrication of the metallic contact surfaces using a quality gun oil is required!
A thin, visible lubrication film is sufficient.
Parts / surfaces to be lubricated are marked in the instruction manual with the following symbol:



INSTALLATION - PREPARATION

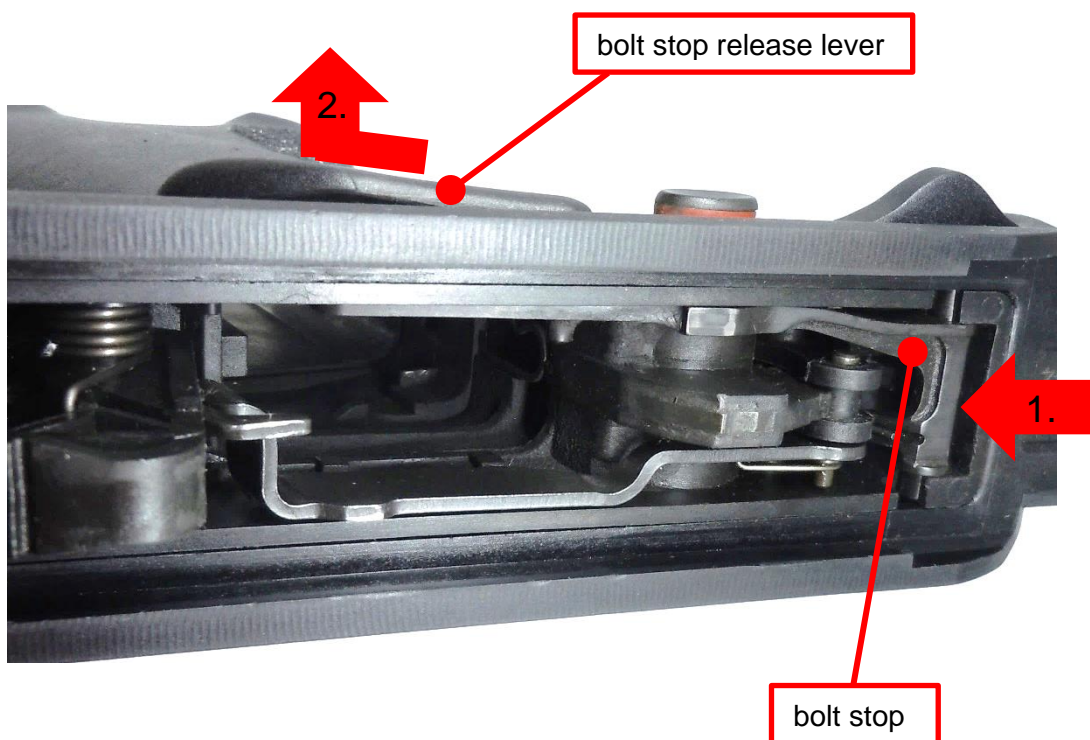
1. **Before maintaining or working on any firearm always ensure that it is unloaded and safe!**

While pointing the firearm in a safe direction remove any magazine from the firearm and ascertain it is unloaded by locking the bolt to the rear and visually inspecting the chamber before working on or cleaning it! If loaded follow the proper procedures to unload the firearm safely!

Firearms Safety is your responsibility!



2. Separate the upper receiver from the lower receiver as per the original instruction manual. The installation from thereon will only involve the lower receiver and the trigger pack.
3. Release the hammer by pulling the trigger while holding the hammer firmly and then slowly releasing the tension to avoid damage to the components.
4. Remove trigger group from the lower receiver:
 - a. Remove the *bolt stop release lever* by 1.) pushing the *bolt stop* back with a suitable, flat bladed tool towards the hammer while slightly lifting the rear while 2.) simultaneously disengaging the bolt stop release lever by pulling outwards and subsequently removing it completely by pulling to the outwards and to the rear.



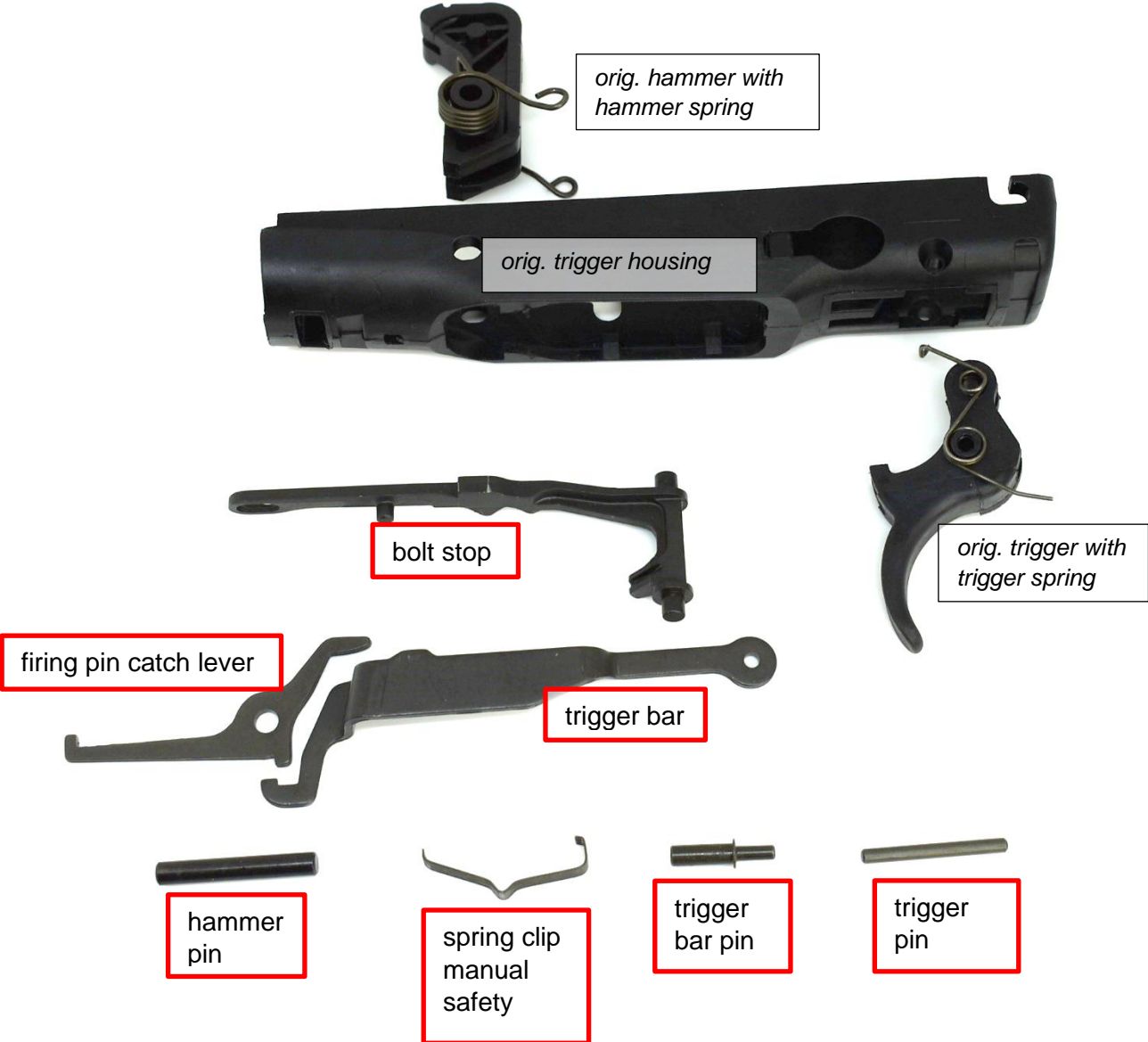
- b. Remove the manual safety (trigger cross-block safety) by lifting / rotating the *bolt stop* slightly upwards and pushing the manual safety cross bar out of the lower receiver either to the left or right. Remember the orientation of the manual safety for re-installation!
- c. Lift the trigger group out of the lower receiver.



5. Disassemble the original trigger group:
 - a. Release the *hammer*, if not yet done
 - b. Disengage and remove the *bolt stop*
 - c. Push out the *trigger pin* using a 2mm drift punch
 - d. Remove *trigger*, *trigger bar*, *trigger bar pin* and *trigger spring*
 - e. Disengage both legs of the *hammer spring* from the *trigger housing*
 - f. Push out the *hammer pin* using a 2mm drift punch
 - g. Remove *hammer with hammer spring* and *firing pin catch lever*
 - h. Disengage and remove *spring clip for the manual safety*

The trigger group is now disassembled into its components.

On the following page (p. 7) the parts are shown and referenced again – any original parts required for the subsequent assembly of the *trigger group* (PN 04.100) are marked with a **RED** frame. It is recommended to thoroughly clean and inspect the parts for damage or excessive wear before re-installation.












This version of the instruction manual is **for information purposes** only and available as a download at *www.tectal.at*.

As such a full description of the product and scope of supply as well as all important general notes regarding installation, use, maintenance etc. are provided therein, while the chapter “Installation” is omitted for protection purposes.

The **full version** of the instruction manual including the comprehensive chapter „Installation“ will be provided to the customer after ordering, upon shipping of the product **in electronic form as a .pdf**.

IMPORTANT NOTES

INSTALLATION and USE

-  The installation requires partial disassembly of the gun and complete disassembly of the trigger group. It is strongly recommended to have the installation done professionally by a gunsmith familiar with the weapon!
-  The installation / use of the original hammer spring is **NOT** permissible to prevent damage to the trigger group and/or to the gun!
The use of the TECTAL CX4 light firing pin spring in combination with the original trigger group and especially with the original hammer spring is **not permissible** to prevent potential damage to the components!
-  The use of the original trigger is **not recommended** to ensure the best possible improvement!
-  For optimum function and to minimize wear regular maintenance and proper lubrication of the metallic contact surfaces using a quality gun oil is required!
-  If the function check is not passed do not attempt to use the gun and carefully re-check the installation!
-  Correct function requires proper ammunition, regardless if it is factory ammunition or re-loaded ammunition!
Especially with re-loaded ammunition the primer seating depth shall conform to a certain minimum standard i.e. primer not protruding over the case head, a correct primer seating depth of usually 0,1mm to 0,2mm, etc.!
-  To avoid premature fatigue or setting of the *hammer spring*, *light* the hammer shall be un-cocked when the gun is not in use.
-  The TECTAL trigger housing resp. the completed trigger group does not contain a hammer safety. It is designed for sporting use only!
-  Customer modifications to any parts are prohibited for safety and functional reasons. Any warranty or liability in that context is expressly excluded!

MAINTENANCE

In addition to the general maintenance of the gun, including point 16 in the chapter „INSTALLATION“ note specifically for the trigger group:

- Regular maintenance of the trigger group disassembled into its main components is required to maintain optimum function and minimise wear. During maintenance it is sufficient to wipe the trigger group resp. its components clean and to relubricate them.



Due to the coatings, it is neither necessary nor recommended to use aggressive solvents or abrasive tools for cleaning!

Cleaning in an ultrasonic bath is NOT permissible!

- As the hammer and the sear as well as the original steel components are surface treated resp. coated but not made from stainless steel the parts shall be coated with a light film of oil to maintain corrosion protection in addition to lubrication - especially after cleaning and following the use in a humid environment!



The sear is NOT intended to be removed from the trigger housing by the customer! The screws are for initial mounting only and secured with a thread locking compound

- The *hammer spring, light* as well as the *trigger spring, light* are wear parts to be changed as required.

A change of the *hammer spring, light* is recommended if reliability decreases or after 10.000 rounds based on testing data. A routine removal e.g. for maintenance is not recommended!

A change of the *trigger spring, light* may be required after multiple disassembly / assembly cycles as the loose end will eventually get deformed in the process.

Available from TECTAL as standard spare parts:

- **PN 04.110 ... *hammer spring, light***
- **PN 04.127 ... *trigger spring, light***

COATING / WEAR

The coating of the Aluminium parts is applied electrochemically. Where the Aluminium parts are suspended during processing or factory pre-assembly is required, they may show minute, bare spots. Process and factory pre-assembly related bare spots are avoided as much as possible but may occasionally occur. These have no impact on the overall durability and resilience of the coating and are not considered a defect.

The coatings are also subject to wear – especially in exposed areas (edges, contact surfaces etc.). Customer installation or usage related wear are not considered a defect.

The hammer and associated parts – especially firing pin, bolt, sear – are subject to minimal, interrelated wear. Such wear is also not considered a defect.

In case of questions please contact us at:

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