

# The Swiss SIG

## P49/P210

by Alek Wadi



The SIG P49/P210-2 with its military holster.

Switzerland is a beautiful country with a difference; a nation of law-abiding citizens with a special relationship to firearms, their national defence is a people's militia with compulsory military training for male citizens. Service firearms are kept at home for military duty, shooting practice and reserve. That makes Switzerland a country with one of the highest rates of firearms ownership, with 46% of Swiss households owning a firearm in 2005, placing them third to the US (89%), from 178 countries worldwide, compared to Australia (15%) and the UK (6%).

What's also very unusual is that when reserve obligations end, soldiers may keep their assigned firearms under stringent regulations requiring a firearm permit. So, it is perhaps not surprising

that 130,000 people took part in the 2012 *Feldschiessen* (field shooting) day in Switzerland - the world's largest marksmanship competition. What's more, as a retiring Swiss Army officer, you are allowed to keep your P49 or the newer P75 service pistol as a gift from the government. Let me tell you more about this exceptional and fine P49 service pistol and its P210 civilian variants.

### Some history

Born in Switzerland in 1880 and enlisted in the Swiss Army, Charles Petter, a mechanical engineer and the father of the P210 pistol, worked for the industrial company Krupp in Germany before settling in Paris during World War I when he joined the French Foreign Legion. He survived the Champagne Campaign, being awarded the highest

French military distinctions, then worked as director for Lewis Automatic Firearms in Paris up to 1933.

Working for the 'Societe Alsacienne des Construction Mecaniques' (SACM, an engineering company in Alsace), he patented a semi-automatic pistol in March 1934. Adopted as the new French 'Pistolet automatique modele 1935A' or Model 1935A service pistol, it copied the short recoil dropping-barrel system from Browning's M1911 design, the removable trigger assembly from the Russian TT30 and other features from the Polish Vis-wz 35. For whatever reason, the French Army chose to chamber the M1935A in the weak 7.65mm MAS (7.65x19.7mm) round, when the Germans had already long adopted the 9mm Parabellum (9x19mm) and the Americans, the .45-calibre (11.43x23mm).

In 1937, the Swiss, worried with a possible war, started modernising their military equipment. They could not produce enough of their complicated Luger Model 06/29 7.65x21mm service pistol. This is when 'Schweizerische Industrie-Gesellschaft' (German for 'Swiss Industry Company'), better known as SIG, acquired the SACM rights to produce a 9mm pistol for the Swiss Army. By 1944, SIG issued the SIG-Petter 44/8, 44/15 and 44/16 pistols similar to the M1935A with eight-, 15- and 16-round 9mm magazines.

SIG was then approached by the Swedish Sports Shooters Association and the Danish Army looking for an accurate pistol. In 1947, they both adopted the SIG-Petter 47/8. This pistol was renamed P210 in 1949 by SIG and was also known as the P49 under the Swiss Army label. The P49 service pistol, and the equivalent civilian P210, is a single-action, semi-automatic, recoil-operated pistol with an eight-round 9mm Parabellum or 7.65mm Luger magazine.

#### The pistols in detail

When the pistol is loaded, the ribs on the barrel lock into the corresponding grooves of the slide, binding the barrel and slide. When a cartridge is fired, the bullet leaves the barrel after 2mm recoil, driving the slide rearwards, while the barrel remains in its firing axis an additional 1mm. Then the barrel swings downwards, driven by the slide

stop and the cam slot, and unlocks from the slide. The barrel's rearward shift is stopped by the frame. The slide continues moving to the rear, driven by the recoil energy. It extracts and ejects the empty case, cocks the hammer and compresses the recoil spring. With the recoil completed, the slide is driven forwards, feeding a new cartridge into the chamber. Meanwhile, the cam slot and slide stop move the barrel upwards to lock the barrel lugs into the slide grooves. Finally, the barrel and slide are locked again, and a new firing cycle is ready.

The pistol (900g empty) is machined with rigorous manufacturing tolerances and tight operating clearances - the latter being mandatory to avoid binding the pistol's mobile parts by dirt or thermal expansion. The Swiss are renowned for their outstanding mechanical excellence, be it with watches, sewing machines, firearms or manufacturing machines.

Up until 1983-84, the frames were milled out of forgings and later machined from 35mm steel-plates. The 25mm-wide frame has two inverted rails as for the P-08 Luger and copied by the CZ75, Sphinx, Tanfoglio and Jericho pistols. The P49 rails are 153mm long, enabling precise and durable slide-barrel to frame alignment for intrinsic accuracy.

The P49 trigger assembly holds the external hammer, mainspring and stirrup, and ejector. The steel-forged assembly can be inserted >



The P210-6 Target pistol with the side button magazine release and adjustable rear-sight, left, and the P49/210-2 with heel magazine release and fixed sight.

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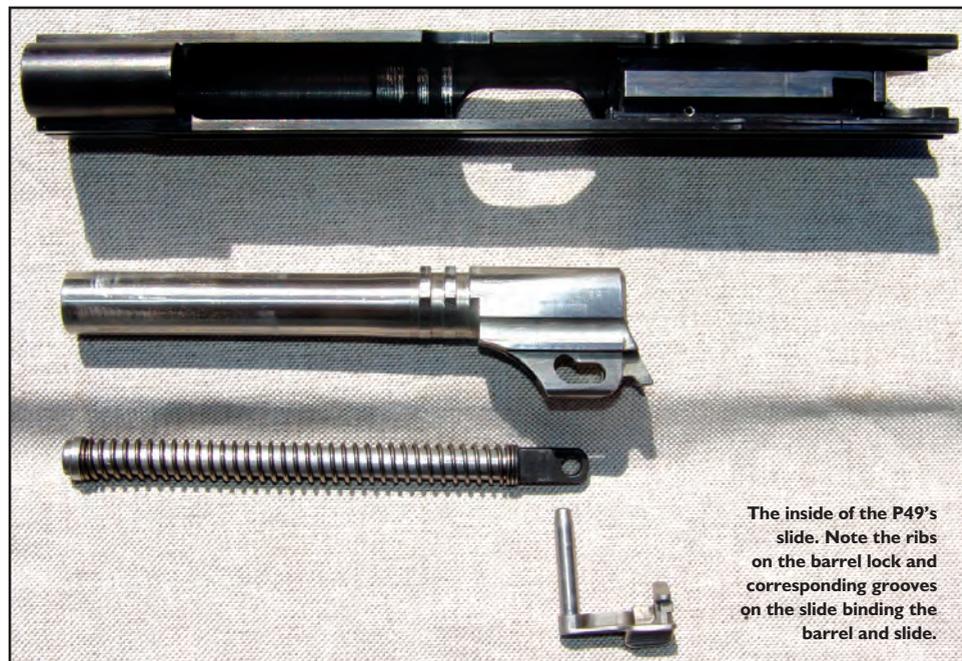
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into and removed from the frame without a tool to facilitate pistol maintenance. A cast trigger assembly later replaced the forged part (from SN P311000 onwards) on the target P210. The P49 forged hammer is 8mm wide and serrated for a positive control. The trigger is single-action and a two-stage unit with a first long take-up stage followed by a crisp release. During the trigger take-up, the hammer/sear engagement is released, as witnessed with a short rearwards movement of the hammer. The first stage pull ranges between 2000 and 2500g, but is reduced by about 500g on P210 target pistols. The P210-5 and later variations are fitted with a target trigger backstop.

The P49 slide stop is a fine-looking device machined out of a single piece of steel with a concave thumb pad. It connects the frame, slide and barrel through a hole across the frame and the cam slot under the barrel, and acts as a stop, catching a notch cut into the left side of the slide.

The slide stop is also the take-down lever - no tool is required to dismantle the pistol. Slide stops on later produced P210 variations were welded in two pieces or casted, and are not interchangeable between early and late pistol models.

On the P49 9mm pistols, the rod is 118mm long and captures a 2.5kg pre-stressed spring with the slide in the forward position and to 4.5kg when the slide stops to the rear. Other recoil



**The inside of the P49's slide. Note the ribs on the barrel lock and corresponding grooves on the slide binding the barrel and slide.**

springs must be fitted according to the calibre in use. In this case, the rod is clearly identified with either a '7.65' or '.22'. Extra-strong recoil spring marked '9.0 S', pre-stressed at 3.4kg at rest and 7.3kg compressed, equipped the Northern European Army pistols to withstand powerful 9mm ammunition. So ensure you are using the proper spring with the proper calibre!

Three safety mechanisms block the trigger and

the hammer:

1. A frame-mounted manual thumb safety on the left side of the frame locks the trigger rod and the trigger when on the white 'S' (safe - to a point!). The pistol is ready to fire when the thumb safety is on the red 'F'.

2. When the magazine is removed, the magazine safety disconnects the trigger rod and the sear, so no shooting is possible.

3. When the slide is not fully closed, the trigger rod does not engage with the sear. A second safety notch, missing on the early P49 hammers (A100001 to A107210), retains the hammer if released accidentally before it engages the principal notch.

The P49 front and rear sights are fixed. The rear-sight has a rounded U-notch to match the sloping, narrow, serrated front-sight, and both sights are factory set.

The P49 grip is 30mm wide with an angle to the slide of about 250 degrees, allowing for an efficient hold and rapid sight acquisition. It was initially fitted with grooved walnut plates and later equipped with chequered black Galalith. The back of the grip presents a bulge that fits the palm well. The heel magazine release is located below the lanyard ring. The commercial P210 has a wooden chequered or grained buttplate embracing the lanyard ring, or inconveniently covering the bottom magazine release.



**The P49's grip, lanyard ring, heel magazine release and magazine. Note the finger rest on the front side of the floorplate.**

The 20mm-wide steel slide has two remarkable 190mm-long slide rails facing outwards, and rides on the internal rails machined on inside of the frame. Two locking grooves for the barrel are cut into the inside upper part of the slide in front of the ejection port. The front end of the slide presents the barrel bushing holding the rod and recoil spring linking the barrel and the slide. The barrel bushing is machined out at the slide muzzle with a precise oval differentially bored opening, allowing the barrel to drop down at the breech while minimising play.

The barrel bears two ribs on the top of the barrel, both locking into the grooves inside the upper part of the slide. The unlocking cam system is a strong kidney-shaped cut-out (or cam slot) located in the lug under the chamber. The standard 9mm high-quality steel forging barrel is 120mm long with six right-hand riflings for a one in 250mm twist designed for FMJ bullets, as is the four-rifled 7.65mm Luger barrel. Barrels with one in 500mm twist fitting all P49 or P210 are specifically designed for 9mm lead bullets. A six-rifled .22LR 120mm barrel with a one in 450mm twist is also available.

The firing pin is of an inertial type and is held back with a compressed spring. The proper functioning of the firing pin may be tested by first clearing the chamber, ensuring the pistol is unloaded and inserting a completely empty magazine in the well, then slotting a wooden pencil in the barrel with the muzzle pointed up in a safe direction. The hammer fall should launch the pencil out of the barrel.

Military magazines are seamless, with seven witness holes, and holding eight cartridges single-stack. The civilian magazines are welded on the back. The slide remains open when the last shot has been fired and the magazine is empty. The magazine extraction is facilitated by a finger rest on the front side of the floorplate.

### Markings and P49 pistol produced

A P49 with an 'A' prefixed serial number denotes its army issue, whereas the civilian P210 serial number starts with a 'P'. The serial number appears in full on the left side of the frame and slide, but with only six digits on the right side of the barrel chamber and the last five digits on the back of the trigger assembly casings.



**How to hold the P49 for field-stripping. Note the slide slightly (5mm) retracted, then you can pull the slide stop outwards from the left.**

The oval-shaped SIG trademark is stamped on the slide after the serial number. In between these two marks is a capital joint 'EP', which is also used to mark the Model 1889 Schmidt-Rubin service rifle. Another smaller proof 'K+' from the Swiss Chief Inspector (after 1943) appears on the frame. The P49 hammer is marked with an 'H' below the thumb rest, while a Swiss shield is located in front of the rear-sight. Decommissioned P49s keep their serial numbers and are stamped with a 3mm capital 'P' for 'Private' on the front left side of the triggerguard. The oval SIG brand disappeared on the civilian SIG P210 (SN P323000). About 113,100 P49s were produced by SIG between 1949 and 1975 when the Swiss Army adopted the new SIG P220 or P75. Swiss Arms in Neuhausen ceased production of the civilian P210 in December 2005.

### Accuracy

The P49's 120mm barrel is designed to shoot the standard Swiss Army pistol ammunition, the RUAG 'Pistolen Patrone 41', which is a 9x19mm case with a 124-grain FMJ bullet driven at 1148fps (350mps).

Potent ammunitions such as 9mm+P (for sub-machine-guns) have been reported to damage the frame and slide of those pistols produced before 1965. SIG strengthened the P210 frame and heat-treated the slide after SN P57001.

The P49's sights are individually factory set with Swiss military ammunition, with the point of impact 10cm above the point of aim for a six o'clock hold on the 25m Pistol target. The point of aim is the point of impact at 50 and 100m. The P49 is reported to retain its accuracy well upwards of 100,000 FMJ military rounds.

When developed and tested in 1942, the expected accuracy specifications of the new Swiss service pistol shot from no less than eight machine rest-tested shoots, was 5cm groups at 50m. This would have been outstanding for a service pistol, and is comparable to the contemporary military 9mm and 7.65mm Luger (P06/29) and far better than the military Walther P38, Radom Vis 35 and Colt 1911, which respectively yield 12, 18.5 and 30cm groups.

I tested the P49 pistol hand-held and rested on a sandbag using Winchester 115-grain FMJ factory

loads with a muzzle velocity of 1161fps (354mps) (standard deviation of 5) and shot a 14-shot 6cm group at 25m. With reloaded cast RCBS CN 124-grain loads at 1056fps (322mps) (SD of 3), I shot a 16-shot 5.3cm group. Finally, with 9mm Ball M882 WCC 112-grain FMJ loads at 1200fps (366mps) (SD of 1.6), I shot a six-shot 5.5cm group. Overall, this is quite consistent accuracy, as the pistol will hold the 9-ring (10cm) and 10-ring (5cm) on a 25m Pistol target. You have to wonder how much you would have to pay these days to get such accuracy from a standard service pistol.

### Field-stripping

To field-strip the pistol, remove the magazine and check and recheck that the chamber is empty. Then, with the hammer down, pull the slide 5mm back. Holding the slide partially retracted, push the slide-stop inwards from the right, then the slide-stop lever out of the frame from the left, then slide forward and out of the frame. Remove the spring and rod from below the barrel, then pull the barrel out of the slide. Reassembly is achieved simply in the reverse order.

### The different versions

There have been many variants of the P210 produced. The Swiss Army adopted the P210-1 with a fixed sight, wooden grip and blued finish (SN A100001 to A109710) and later the Parkerised P210-2 issued in 1950 (SN A109711 to A213110) with a black grip also adopted by the Danish Army as the 'Neuhausen' pistol. The P210-3 with a loaded chamber indicator equipped the Swiss Police, while the German Border Police P210-4 had no lanyard ring. The P201-5 target pistol has a 150mm barrel protruding from the front end of the slide, bearing the front-sight, while the P210-6 target pistol has a 120mm barrel, and both have an adjustable rear-sight.

The P210-7 is a very rare blowback-operated .22LR-calibre pistol and less than 500 such units were produced. The P210-8 US marketed in 2001 was modified with a lateral magazine release, no magazine safety, a wider safety lever and an extended tang. All P210 pistols were available in 9mm and .30 Luger calibres, though a .22LR conversion unit was also produced with the appropriate barrel, recoil spring and an



A field-stripped P49/P210-2.

eight-round magazine. In 2011, the P210 in 9mm reappeared under the SIG Sauer brand.

### Unique issues

Hammer bite is a common annoyance in these pistols due to the short tang below the hammer, but this isn't a real problem once you know how to hold the pistol. Shooters may find the P49 heel magazine catch awkward during competition requiring rapid reloads, but for service pistol dependability, the heel magazine catch allows a consistent magazine positioning and retention. More annoying is that the P49 safety locks only the trigger, leaving the inertial firing pin free to move around and allowing possible accidental discharge if the pistol is dropped. So, as with all firearms, unloaded or loaded, pay attention!

### Summary

The P49, designed and first produced some 60

years ago, is a timeless, elegant, high-quality and robust service pistol with good, lasting accuracy. This is also true of its P210 civilian variants. While quality and durability always has a price, if you manage to find and buy one of these pistols, you will not ever be disappointed.

Unfortunately, original P49 pistols range in price from \$US2500 to \$US3500 and are hard, if not impossible, to find on the Australian market. Quite a few decommissioned P49s were available in Switzerland a couple of years ago for \$US1500, but I believe they've all gone now.

The newer SIG Sauer P210 Legend pistols released from 2010 are available in Australia for about \$3000. For more information about SIG Sauer pistols, speak to your local gunshop. ■

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