



**PEDERSOLI DAVIDE® & C. S.n.c.**  
25063 GARDONE V.T. (BS) – ITALY  
Via Artigiani, 57 – P. O. Box 150  
Tel. 030.8915000 – fax 030.8911019  
www.davide-pedersoli.com – info@davidepedersoli.com



2009

## **USA 426 /USA 426-A - USA 457**

*Second edition*

### **INSTALLATION AND ADJUSTMENT OF FRONT SPIRIT LEVEL SIGHT**

1. To mount the tunnel front sight, it is necessary to disassemble the base (# 9) from the tunnel (# 1). To do so, remove the lock nut (# 8), then turn the micrometric screw (# 3) until the base (# 9) is completely free from the tunnel.
2. Using gentle pressure, insert the dovetail of the sight base into your barrel dovetail slot to make certain they are the same size. The sight should be inserted from the left side of the barrel and if it is necessary, use a wood dowel rod or suitable soft object to tap the sight base into final position.
3. Place a piece of masking tape or similar tape on top of the barrel in front of the sight slot. Use a machinists caliper to determine the center of the top of the barrel and place a pencil mark on your tape to indicate the center. Position the sight so that its center line (# 7) is aligned with the barrel center as closely as possible.
4. There is a set screw (# 6). After the sight base has been positioned in line with the center mark, using a suitable small screwdriver, tighten the set screw (# 6) using only moderate pressure. While your Pedersoli sight is made with quality steel, these parts are necessarily small and can be broken or damaged if excessive tightening is used.
5. Re-assemble the tunnel on the base with its centerline aligned with the base centerline. Tighten the lock nut (# 8) gently.
6. Remove the sight inserts from their steel sheet by gently twisting and bending each insert until it breaks free of the steel sheet. To place a sight insert into the hood slot, swing the spring-loaded retainer clip (# 5) to either side, drop in the desired insert and swing the clip back to its center position. (If a small burr remains at the top of the insert, just file it off). If the sight tunnel has a curb on the top (like the most recent produced models) remove the insert leaving attached the rectangular small part. In this case to place the sight insert into the hood slot, it is necessary to untie the screw (# 10) on the retainer clip (# 5), place the insert, move the retainer clip into the center position and tie the screw.
7. The spirit level (bubble) is a plastic tube which is not pressed by the end caps (# 4). The end caps can be firmly tightened without harming the spirit level tube. However, sometimes the end caps may come loose from shooting vibrations and to prevent losing an end cap you can apply some thread locking chemical to the end cap threads.
8. Due to normal mechanical tolerances the way rifle barrels are installed they may show an imperfect parallelism. This would cause the bubble to read off to one side. Minor differences of this type can be corrected by mounting the rifle in a padded vise and using a carpenter's or machinist's level to set the barrel in a true level position. You can then remove one end cap (# 4) and using small tweezers, insert a thin strip of paper under one end of the glass bubble. By trial you can usually get the sight bubble to read correctly unless your barrel is too far out of level, in which case the entire sight needs to be shimmed in the barrel dovetail slot. To install the sight and also obtain a proper level position you will need the following tools:
  - small screw driver with 1/8" wide blade
  - small wood or plastic rod
  - small hammer
  - wood protective blocks (2 needed)
  - combination square with leveling bubble (or suitable leveling tool)

## **ADJUSTING YOUR FRONT SIGHT**

The front face of the sight hood (# 1) has a center line (# 7) with five lines to the left and five lines to the right of center. These lines are 1.0 mm apart and this equals .039 inches, (rounded off to .040").

Point of bullet impact (Pol) is changed in different amounts to the left or right, by the sight movement and the amount of change varies according to how far apart the front and rear sights are. Most original and replica guns use standard barrel lengths and the following chart will show you how much the Pol changes for each distance between the sights. When you install your new Pedersoli front sight, measure the distance between the front and rear sights and select the correct information from the chart below.

### **DISTANCE BETWEEN FRONT AND REAR SIGHTS**

32 inches radius	.009" sight movement equals 1 MoA (minute of angle)
34 inches radius	.010" sight movement equals 1 MoA
36 inches radius	.010" sight movement equals 1 MoA
38.75 inches radius	.011" sight movement equals 1 MoA

(The above numbers are rounded off to practical amounts and the two .010" numbers are correct).

One minute of angle (MoA) is approximately equal to 1.0 inch at 100 yard, 2.0 inches at 200 yard and so on for longer distances.

If the test target shows the bullets striking left of the bullseye, moving the front sight to the left will bring the Pol to the right. To move the Pol to the left, move the front sight to the right.

Let's say you have the popular 30 inch barrel length and the distance between sight apertures is 34 inches. From the chart above, we see that a .010" sight movement moves the Pol one MoA.

This .010" movement will change the Pol one MoA at all distances but the actual size of one MoA becomes larger at longer distances.

Example: to move Pol to the left or right 8 inches at 200 yard, you need to move the sight  $4 \times .010" = .040"$  (or exactly one full space between lines).

For other barrel lengths, measure the sight radius and use the correct data as shown in the sight radius chart above.

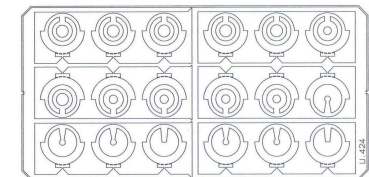
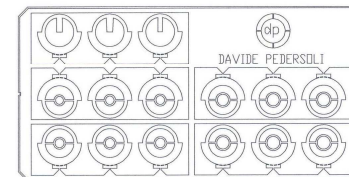
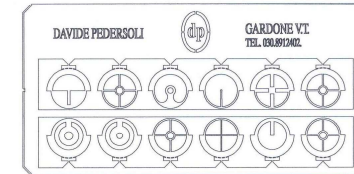
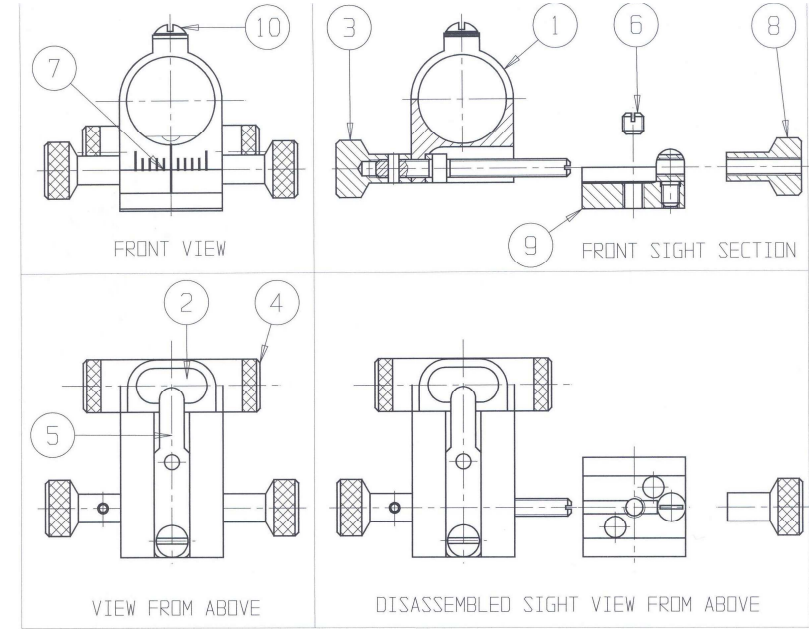
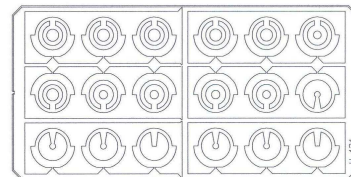
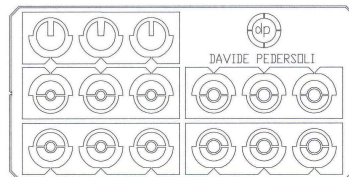
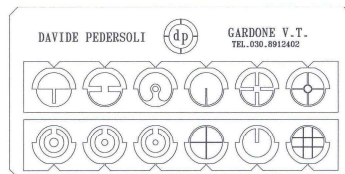
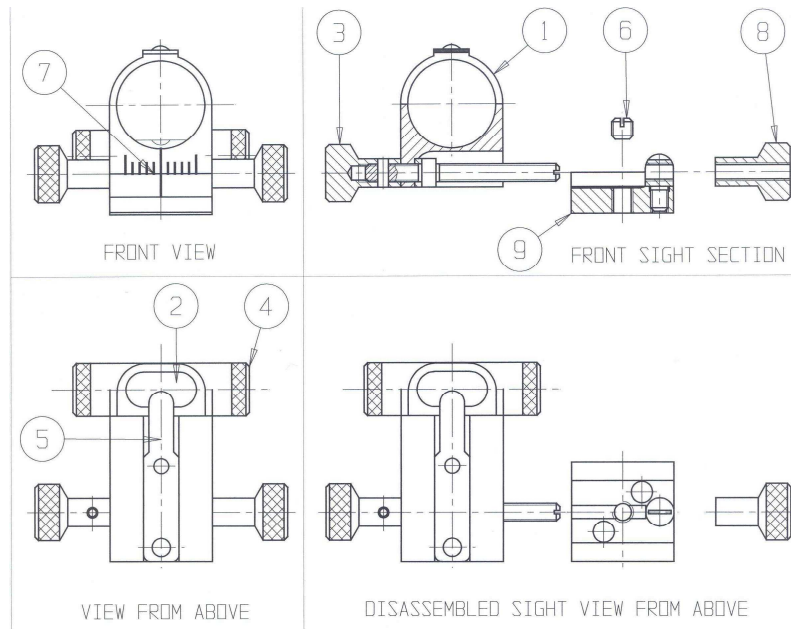
### **ADDED BENEFIT OF AN ADJUSTABLE FRONT SIGHT**

When shooting in severe wind conditions your rear tang sight might not have enough windage adjustment available to handle the conditions. You can add additional MoA movement by using the front sight scale.

We remind that it can be moved right or left, according to the adjustment you will need to obtain. Move the front sight to the mistaken direction: if it shoots too far left, move the sight towards the left; if it shoots too far right, move the sight to the right.

The tang sight adjustment, on the contrary, will need a direction opposite to the mistake.

## NUOVO MODELLO / NEW MODEL



1	Tunnel mirino	Sight's tunnel
2	Livella a bolla	Spirit level
3	Vite micrometrica per regolazione orizzontale	Horizontal adjusting micrometric screw
4	Tappi filettati per fissaggio livella a bolla	Spirit level end cap
5	Leva chiusura per inserto mirino	Insert retainer clip
6	Vite fissaggio base mirino	Sight dovetail set screw
7	Scala graduata	Centre line
8	Vite fissaggio tunnel mirino	Lock nut for no.3
9	Base mirino	Sight base
10	Vite leva chiusura inserto mirino (nuovo modello)	Insert retainer clip screw (new model)