





# Morini<sup>®</sup> CM 200EI



## Technical Data

Caliber:	4.5 mm (.177)
Weight:	985 g
Total Length:	400 mm
Total Height:	150 mm
Total Width:	50 mm
Length of Sight Line:	From 330 mm to 350 mm
Barrel Length:	230 mm
Type of Barrel:	Lothar Walther 6 dx 450 mm
Number of Riflings:	6 Polygon
Functioning:	Compressed Air
Trigger:	Electronic
Path:	0 - 1.5 mm
Arrest Point:	0.1 - 0.03 mm
First Stage Weight:	300 g - 700 g
Second Stage Weight:	50 g - 300 g
Trigger:	Mounted on Micro-Roller Bearings
Voltage:	3 V
Battery Life:	15000 Firings ca.
Sight:	4.0 - 4.5 - <b>5.0</b> - 5.5 - 6.0 mm
Sight Slot:	Micrometrically Adjustable
Average Bullet Speed:	$V_0 = 150$ m/s
Number of Shot with 200 bar:	150
Grips:	Adjustable/Fixed - Left/Right

Morini Competition Arm S.A.  
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## PLEASE READ CAREFULLY BEFORE USING

Before using your Pistol, please be sure to get absolutely well acquainted with the handling and function of the gun, guided by these instructions. Even a safe gun may become dangerous to you and other persons by faulty handling. Generally, hold the gun only in a way that you do not expose anyone to danger. Even an unloaded the gun must generally be handled as a loaded one. Any changes to the gun, using non-original MORINI spare parts, the use of force while stripping down the gun or the presence of corrosion may, or bad maintenance, very much influence safety and function of the gun. Morini, as manufacturers are, in such cases, generally discharged from any warranty. From time to time it is recommended to have the gun tested by an authorised gunsmith for safety and function.

Dear shooting friend, You are now in possession of a Compressed Air Pistol model **MORINI CM 200EI**, manufactured in Switzerland. **Morini Competition Arm S.A.** placed in Bedano (Switzerland), produces precision target pistols suitable for top level competitions. Modern design principles combined with the use of the best available materials, absolute precision and attention to the details in the manufacturing of all Morini products assures satisfaction in functioning and almost unlimited durability of these pistols, under normal usage. The pistol also features a very sophisticated electronic trigger mechanism, with moving parts mounted on micro-roller bearings, and a unique air pressure regulator assuring constant and uniform air release pressures. The pistol is the result of the desire to produce a high quality match air pistol combining the advantages of the precompressed air systems without the disadvantages of the usual cocking effort. Compressed air is much less affected by temperature changes and has much less recoil effects than the widely used CO<sub>2</sub> gas systems. Some of the worlds most experienced shooters cooperated with Morini, helping to combine engineering design excellence, reliable functioning and accuracy with excellent balance and handling. Morini Competition Arm S.A. is also the master of producing excellent anatomical target grips for a wide range of pistols and thus the excellence in design, reliable functioning and high quality of this pistol is also complimented by the use of these well known grips, made of fine quality walnut timber.

At this point we would like to wish you good shooting.

### **Compressed Air Pistol Morini Model CM 200EI**

This model is conceived for firing single shot of 4.5 mm / .177 calibre. The propelling element is Air, which is found in the detachable cylinder under the barrel. Do NEVER use CO<sub>2</sub> in your pistol, as it has not been conceived for this purpose the fact which may provoke inconveniences or breaks, which are not considered in the guarantee. For transport purposes, the cylinder containing the air is empty and therefore you need to fill it before first use. For any damages, which are caused by non observance of the instructions, by any changing of parts, remodelling or mounting of parts which are not of **MORINI** origin, no guarantee is granted from our part for direct or indirect damages.

### **Warranty**

The compressed air pistol **MORINI CM 200EI** has a guarantee of 2 years (excluded from warranty are the seals). Within this period our obligation is to exchange, free of charge, all those parts that, due to factory defects or deterioration, are deficient. This guarantee loses its validity if the weapon has been improperly treated, inexpert repaired, or altered in any way. To receive the guarantee certificate please return us the card complete after having bought the pistol. Only then the guarantee will be valid.

## 1. Turning the electronic on(*Fig. 1*)

### 1.1 Switching the electronic on

Push the switch lever (1) up. When powered on the LED (2) shows the battery status:

*Fast blinking:*

Error detected

*The LED flashes every 4 seconds:*

Batteries OK

*The LED blinks slowly:*

The duty cycle between on and off shows how much the battery is empty. If the LED is more on than off, the battery is good, if it is more off than on it is better to change battery

The LED force depends on the battery voltage. If it is empty it may be more difficult to see the flashing LED. Unless more than 2 seconds are needed to generate the 30V it is still possible to shot. We strongly recommend, however, changing the battery when the LED off period is longer then the on period. The pistol is so ready to be loaded and for dry firing, which take place simply by pulling the trigger. The battery life is about 15'000 shots.

Error condition can occur if:

*The electronic is powered on with pressed trigger:*

Turn off and on again without pressing the trigger

*The electronic is extracted from the trigger unit when on:*

Turn off

*The electronic is inserted in the trigger unit when on:*

Turn off and on again

*Could not reach the 30 V in 2 seconds:*

The electronic is damaged or there is a short circuit on the output contacts

### 1.2 Introduction of the battery

We recommend the use of high quality batteries. Unscrew the cover plate (3) situated at the bottom of the grip. Extract the electronic from the grip and introduce 1 battery 3V - CR2 Lithium paying attention to the polarity. Reinsert the electronic and screw the cover plate (3) in position again.

**IMPORTANT: This operation and eventually the displacement of the electronic must be done with unloaded pistol and electronic turned off. We suggest to always remove the battery if you don't use the pistol for longer time. After every use, ALWAYS switch off the electronic to keep battery life longer.**

## 2. Using the training cable (*Fig. 2*)

### 2.1 Activate training mode:

With the electronic switched off and the weapon unloaded, insert the training dummy (4) into the plug (5) on the underside of the grip and then switch on the electronic.

### 2.2 Training function:

By activating the training mode, a random function is started, which randomly generates the activation of the trigger.

### 2.3 Disable training mode:

Turn off the electronic and remove the training dummy.

## 3. Loading the pistol (*Fig. 3*)

Pull lever (1) up, introduce the pellet in the chamber and close by pushing the lever down in place. The pistol is now ready for firing.

## 4. Trigger adjustment (*Fig. 4*)

The trigger is adjusted at the factory according to the ISSF rules in an optimal manner, but it is still modifiable by the following way:

#### 4.1 *Adjustment of first stage travel*

Turning adjustment screw (1) clockwise will shorten first stage travel. After adjust screw (1) check trigger weight and readjust if necessary.

#### 4.2 *Adjustment of first stage weight*

Turning adjustment screw (3) clockwise increases the load. The range is 300 - 700 g.

#### 4.3 *Adjustment of second stage weight*

Turning adjustment screw (2) clockwise increases the load. The range is 50 - 300 g.

#### 4.4 *Adjustment of trigger position*

Unlock screw (4) and move the trigger to the desired position, then lock screw (4) again.

### 5. **Sighting adjustment (Fig. 5)**

#### 5.1 *Vertical adjustment*

To move group on target **DOWN**, turn adjustment screw (1) clockwise. One click will move hit on target by 1.5 mm.

#### 5.2 *Horizontal adjustment*

To move group on target to the **RIGHT**, turn adjustment screw (2) clockwise. One click will move hit on target by 1 mm.

#### 5.3 *Adjusting the width of the rear sight notch*

Turning adjustment screw (3) clockwise will widen the rear sight opening by 0.1 mm every click.

### 6. **Pellet velocity (Fig. 6)**

Pellet velocity  $V_0$  is set at the factory between 145 and 150 m/s (475 - 492 ft/s). It is suggested that this adjustment should not be changed if you do not have the necessary equipment. The velocity, however, is regulated by turning adjustment screw (1) clockwise.

### 7. **Sight**

The pistol is supplied with a 5.0 mm wide front sight post, as standard. Other front sights with different widths (4.0 - 4.5 - 5.5 and 6.0 mm) are supplied as accessories.

### 8. **Adjusting the grip angle (Fig. 7 / Fig. 7a)**

The grip (1) can be adjusted and swiveled in all directions to match the shooter's shooting posture. The adjustment takes place, after unscrewing the grip, by means of adjustment on the frame of the screws (2) for lateral adjustment and (3) for longitudinal adjustment. To remove the grip, remove the side cover (4), which is attached to the grip with magnets, with a tool by inserting it into the special slot (5) and unscrew the bottom cover (6). Remove the electronics (7) and (8) by disconnecting the electronics cables from the plugs. Remove the grip by loosening the screw (9). Repeat the procedure in reverse order to assemble the grip again, making sure that the cables are in their proper position. Make sure that the grip is well tightened.

### 9. **Compressed Air Cylinder**

It is by all means required to observe the legal dispositions and rules of the respective country.

The compressed air cylinder can be unscrewed and exchanged even if not empty. While doing so a small quantity of air from the spacing chamber will escape. The filling pressure can be checked with the manometer that is built in all cylinders. The air pressure **MUST** never exceed **200 bar / 2900 psi**. The cylinder must never be exposed to a temperature of more than **50°C (122°F)**. If the weapon is not used for a long time, we recommend unscrewing the compressed air cylinder.

## 10. Filling the Cylinder (*Fig. 8*)

Many common methods are used to fill the cylinders:

- connecting the cylinder to the adapter, supplied standard, attached to a scuba diving bottle.
- connecting the cylinder to the adapter, supplied standard, attached to a hand pump.
- connecting the cylinder to the adapter, supplied standard, attached to a compressor.

The compressed air cylinders must be emptied and safely disposed 10 years after production date. The production and disposal dates are noted on the compressed air cylinder.

**ATTENTION: Morini is NOT responsible for bad maintenance of hand pumps or diving bottles, and for damages due to corrosion or bad maintenance.**

**WARNING: DO NOT TAMPER ON CYLINDER INCLUDING THE VALVE! DANGER!  
IF YOU VIOLATE THIS RULE, THE GUARANTEE EXPIRES.**

## 11. Empty out a Cylinder (*Fig. 8*)

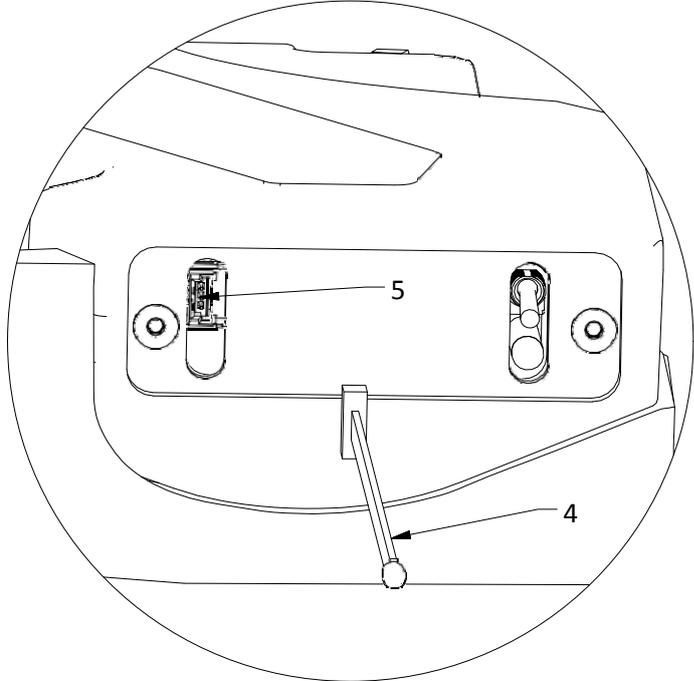
To empty out a cylinder use the adapter supplied with the pistol and the air will come out. Remember to empty out all cylinders before air flights.

## 12. Maintenance

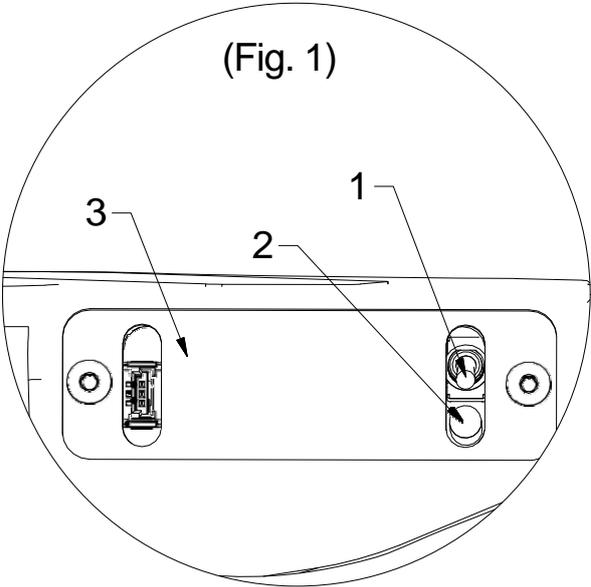
The pistol does not need any special maintenance, except normal inspection and service if and when necessary. No lubrication is necessary, as lubrication of the individual parts has been affected in the factory, with long lasting lubricants. It is recommended, however, to clean the pistol with a soft cloth after shooting. For cleaning the barrel bore, the use of special cleaning pellets, made for this purpose, is recommended. The barrel should be oiled internally only if it is not used for long periods. It is then to be cleaned before using the pistol again. We recommend the use of high quality Match pellets for your **MORINI** compressed air pistol.

We are sure that today we have delivered the best in air gun construction for you and for longer. Finally, we wish you every success with our **MORINI CM 200EI**.

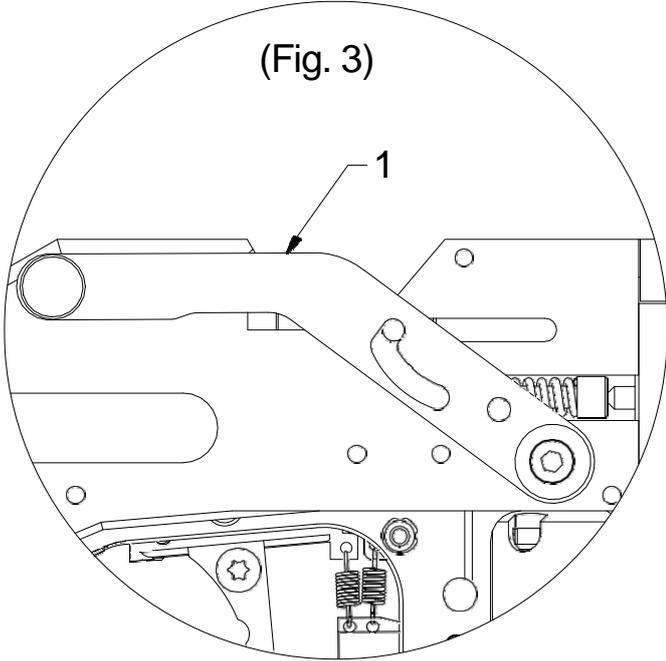
(Fig. 2)



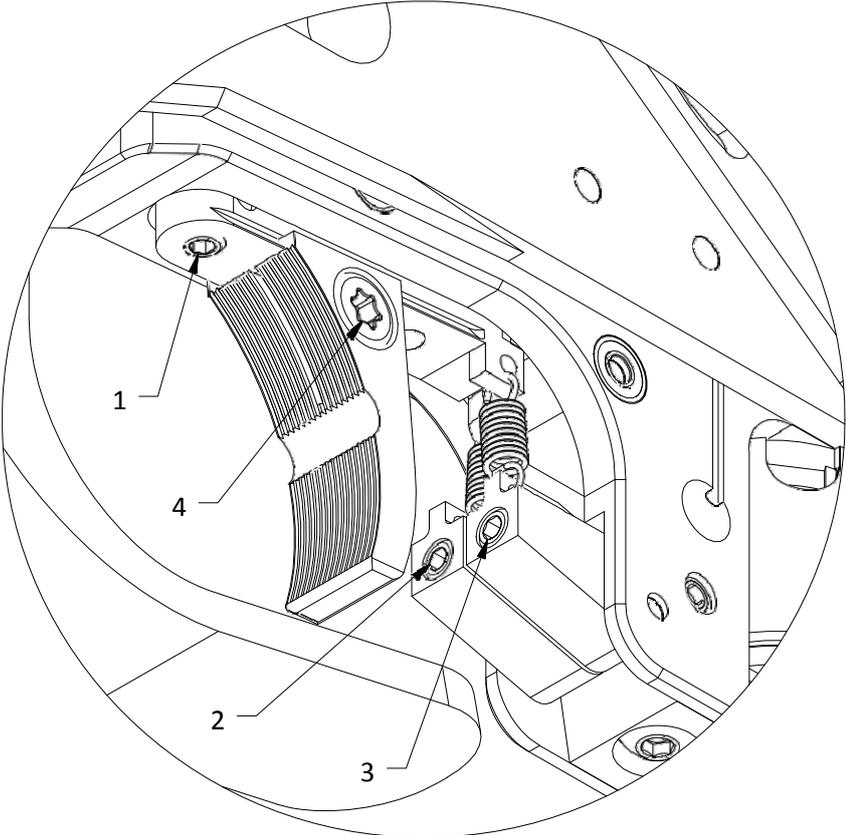
(Fig. 1)



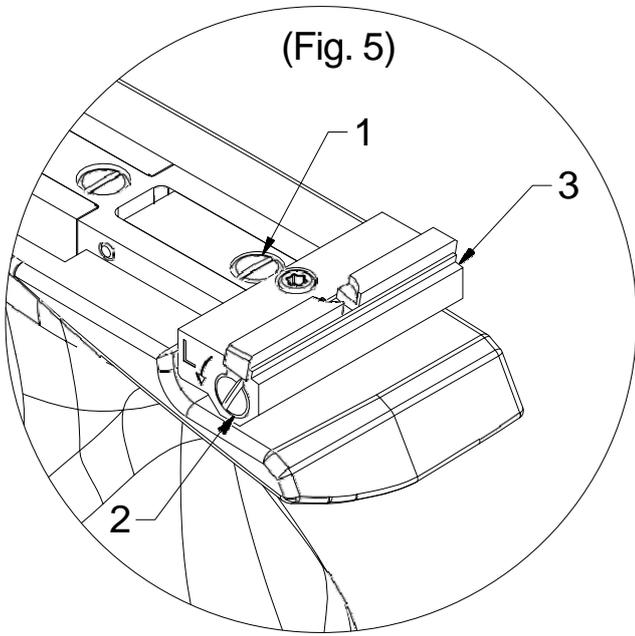
(Fig. 3)



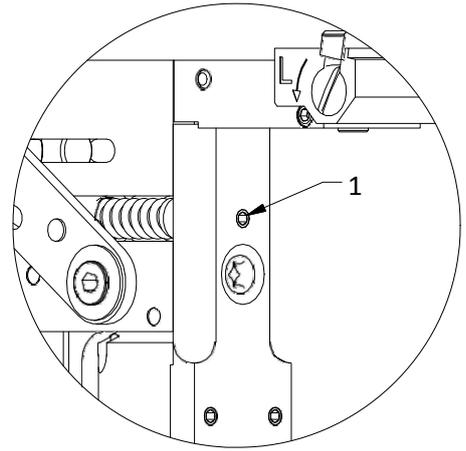
(Fig. 4)



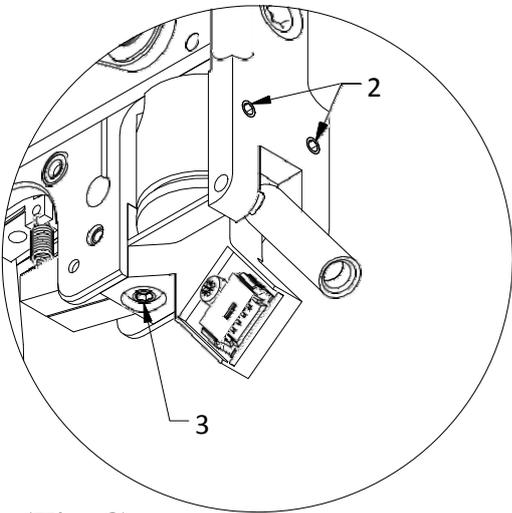
(Fig. 5)



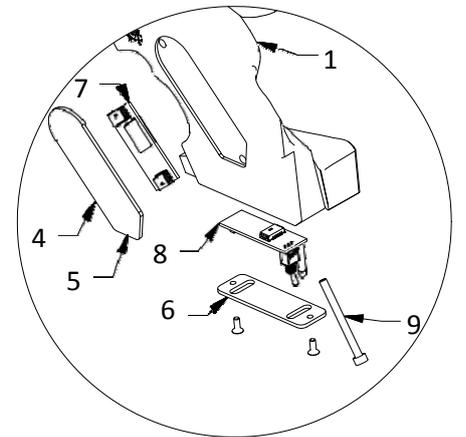
(Fig. 6)



(Fig. 7)



(Fig. 7a)



(Fig. 8)

