SCATT
SHOOTER TRAINING SYSTEMS

SHOOTER TRAINING SYSTEM

SCATT BASIC

USER MANUAL

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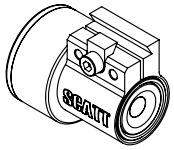
Please read this manual to its end to secure safety and best quality of the system's operation.

Dear Customer, thank you for buying this system. Please read this manual to its end to secure safety and best quality of the system's operation.

Content

SCATT Basic accessories



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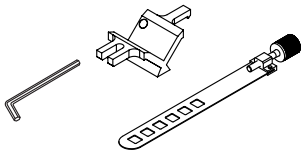

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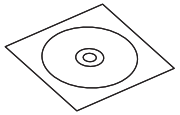

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Please check and identify all contents

1. Optical sensor MX-T02V2 ☐
2. Mounting parts set *(mounting prism with screws, mounting plate with screw, 2.5 mm allen key)* ☐
3. Iris diaphragm ∅1.5 mm ☐
4. Iris diaphragm ∅2.5 mm ☐
5. Optical sensor interface cable ☐
6. Software CD or Flash drive ☐
7. Quick setup guide ☐

System installation

Software installation

Before using the SCATT system, you will need to install the SCATT drivers* and software.

Insert CD or flash drive (included with the set) in the CD-ROM drive or the USB port of your computer, select SCATT. EXE icon in the disc drive window and follow instructions on the screen (fig. 1).

Install SCATT program and drivers first, then connect your SCATT device to the computer.

Fig. 1

While all necessary software is included on CD, we recommend to download latest versions of software at http://www.scatt.com.

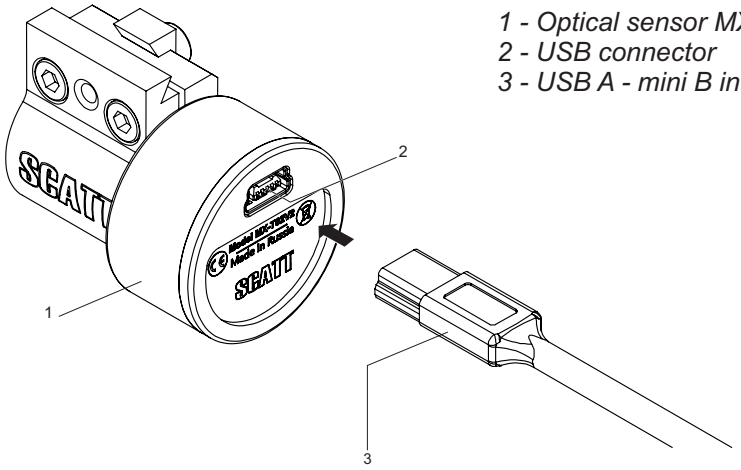
*SCATT drivers are necessary to installation for Windows 7 and earlier versions. For Windows 8 and newer versions, SCATT drivers are not required.

Optical sensor MX-T02V2 installation

Connect the optical sensor model MX-02 to USB port of your computer with a standard USB A - mini B type cable (included with your kit).

Optical sensor MX-T02V2

This sensor model is equipped with an non adjustable lens and allows to train at the distances from 2.5 meters and above.

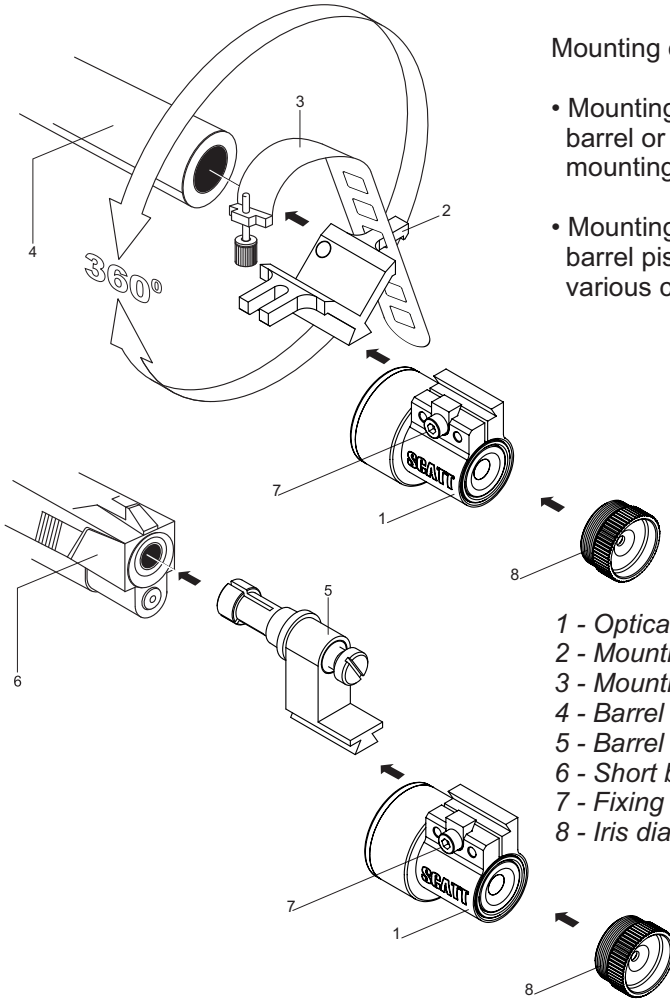


1 - Optical sensor MX-T02V2
2 - USB connector
3 - USB A - mini B interface cable

Optical sensor MX-T02V2 installation

Installation sensor on the barrel

To ensure consistent shot detection, it is preferable to mount the optical sensor on a metal part of your gun which has a strong contact with gun's trigger mechanism. Please do not use any type of padding (eg. tape or soft rubber) between the optical sensor and the body of your gun.



Mounting options:

- Mounting the optical sensor on the barrel or gas cylinders using the mounting prism and plate with screw
- Mounting the optical sensor on short barrel pistols using barrel inserts of various calibers

1 - Optical sensor
2 - Mounting prism
3 - Mounting plate with screw
4 - Barrel of a gun
5 - Barrel insert (not included in a set)
6 - Short barrel pistol
7 - Fixing screw
*8 - Iris diaphragm**

*Mount this part on the lens for outdoor practice with strong sunlight conditions only.

Starting SCATT

When hardware and software installation is over, select SCATT icon in a program manager to start the program (fig. 2).

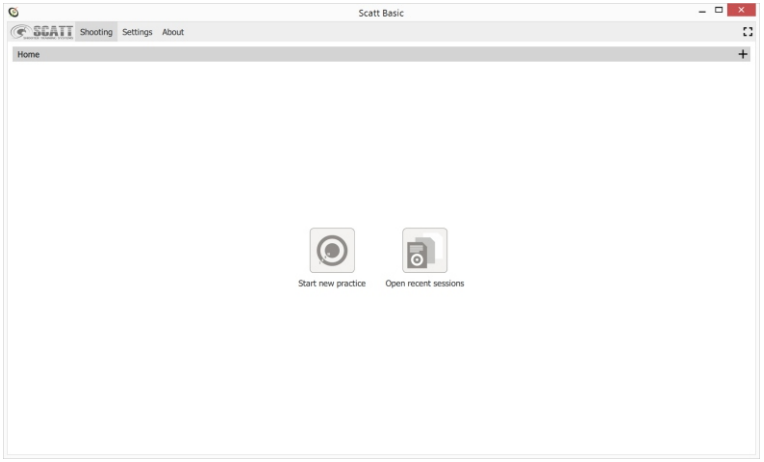


Fig. 2

Target

To practice with the trainer at the standard distance*, you can use a real paper target or an electronic target system. If you intend to use your simulator at a reduced distance, such as your home, you need to print out a paper target, scaled down appropriately for the desired distance.

For indoor practice target must be evenly lit with about 1000 Lux *(We recommend to use a LED lamp with "warm" specter 2700K or usual halogen lamp)*.

To print a custom paper target, connect a printer to your computer, click "**Start new practice**", in opened window (fig. 3) select the target and click "**Print target**".

*SCATT Basic software allows you to shoot or simulate shooting at distances up to 50 meters.

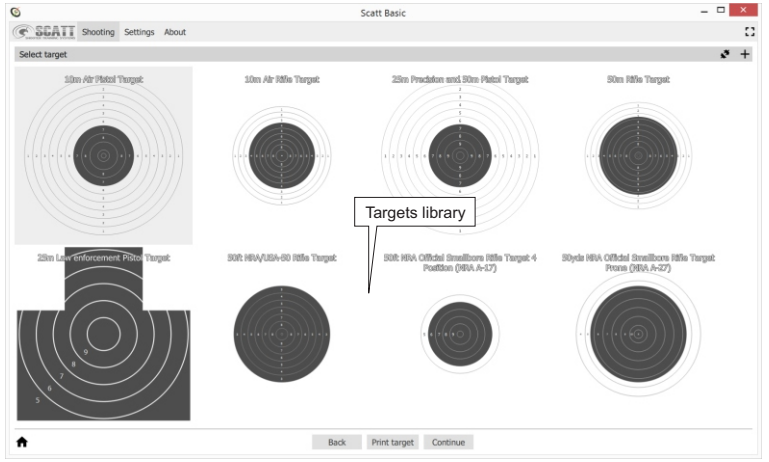


Fig. 3

In the Print Target window (fig. 4) select simulated and real distance to the target, choose other necessary options and then click "**Print**".
The printed target at the reduced distance will correspond in the relative size with the standard target at the real distance.

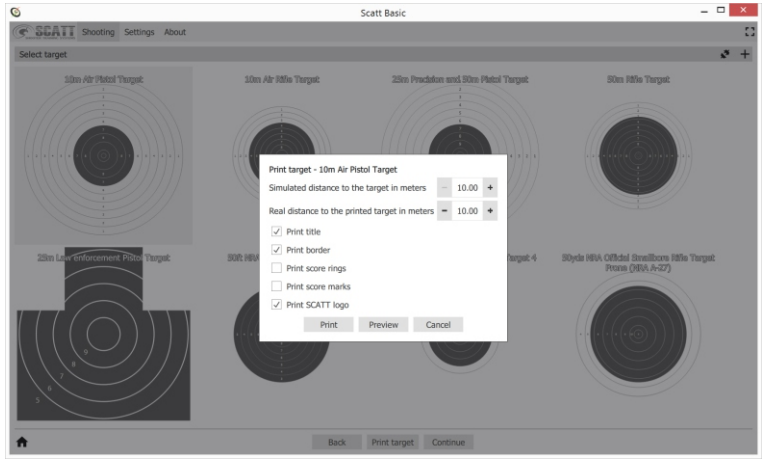


Fig. 4

ATTENTION, to help the MX-T02V2 sensor recognize the target better, we recommend printing the paper target without scoring rings.

New practice starting

To start practice, run the SCATT Basic application and click “**Start new practice**”. In the target library (fig. 5), select the target and then click "**Continue**".

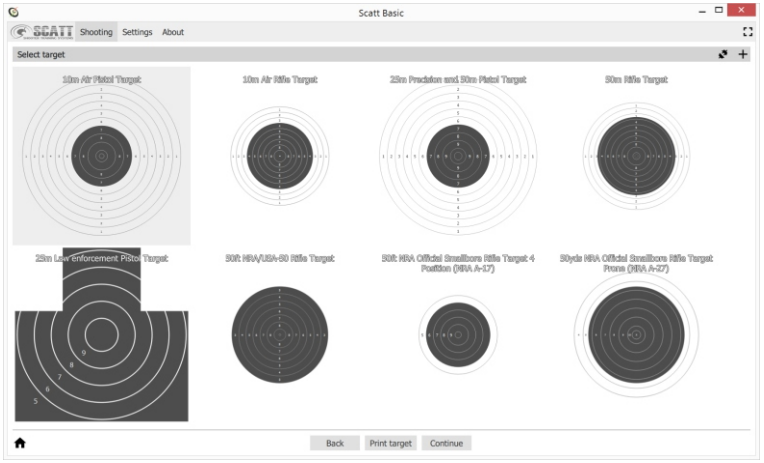


Fig. 5

Optical sensor calibration

After you clicked "**Continue**" the SCATT optical sensor calibration window will open. In this window (fig. 6) you need to calibrate the optical sensor (to match the axis of the optical sensor and gun’s sights) and make necessary adjustments.

The program allows you to automatically calibrate the sensor relative to the sighting of your gun, so there is no need to phisically adjust the sights. The sensor automatically compensates for the “blockage” of weapons!

The optical sensor contains high frequency ceramic microphone which registers the click of your gun’s trigger.

To perform the optical sensor calibration, aim and take one shot at the paper target. The aiming point should be displayed inside the working area*.
The SCATT software will interpret your shot-hole as center of the target.

If your optical sensor doesn’t respond to trigger click, please reduce the trigger response adjustment value.

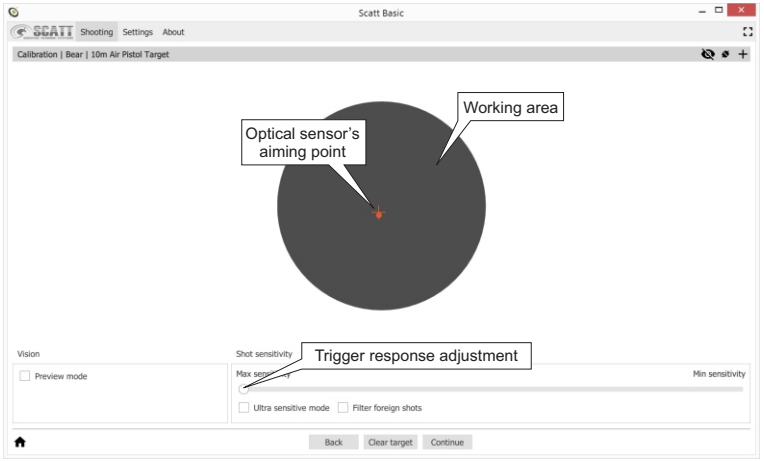


Fig. 6

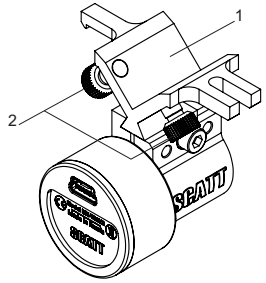
Preview mode - use this mode (fig. 6a) to locate the target and adjust the position of the optical sensor in case if aiming point indicator is not displayed in the working area of the calibration window *(In this mode sensor can not register the shot)*.

Indoor mode - use this option for the indoor practice.

Low-light conditions - use this option for practice with not enough bright target’s lighting.

Ultra sensitive mode - use this option if your gun has a silent electronic trigger.

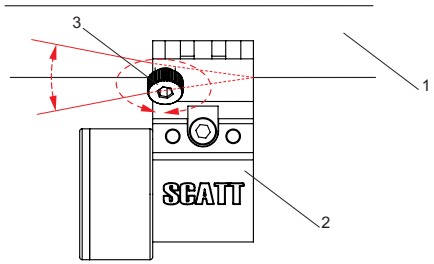
Filter foreign shots - use this option for protecting your SCATT trainer from wrong shot detection, caused by firing on the neighbor firing place.



1 - Mounting prism
2 - Adjusting screws

*If the aiming point does not appear in the working area, check if the sensor’s axis is parallel to the axis of the barrel and try to compensate parallax by using adjusting screws on the mounting prism.

Fig. 6a



1 - Gun barrel
2 - Optical sensor
3 - Adjusting screw

Turn the adjusting screws on the mounting prism to shift the angle of the optical sensor from the barrel's axe and use "Preview mode" to control it's position.

Practice window

When you aim at the target, your aiming trace (movements of your aiming point) will be displayed in real time, the click of the trigger registers as a shot.
Program calculates shot-hole position and displays it on the target (by using aiming trace speed and ballistic coefficient).

After the shot you can replay of your aiming trace and the shot value.

Shot list contains information about each shot (result, aiming point speed and etc.).

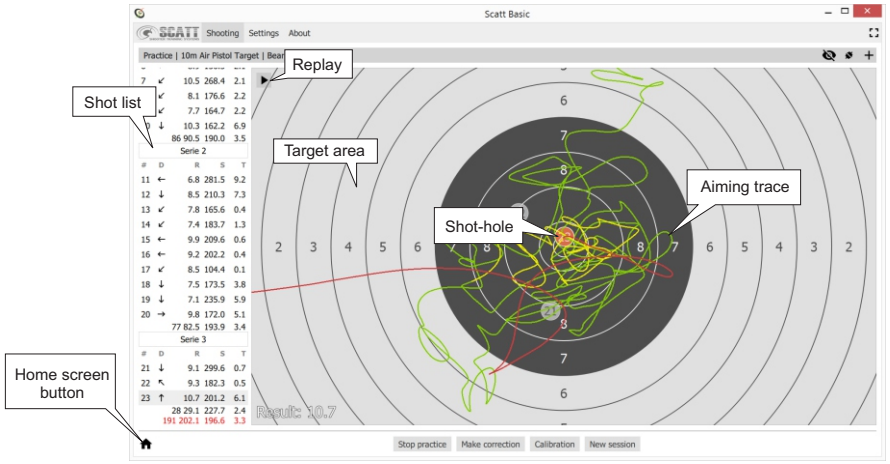


Fig. 7

Scaling the target

During training you may need to change the scale of the target is displayed on the screen. You can change the scale of the target by + / - symbols on the target area, it is also possible to change the scale of the target by double-clicking on select score ring area. You can reset the scale by pressing right mouse button.

You can move the displayed target area with the mouse while holding down left mouse button or using arrow keys on the your keyboard.

Additional calibration adjustement

You can adjust the position of the electronic shot. Select the last shot-hole in the shot list and press "**Make correction**" button, target screen will be switched to the calibration adjustment mode. With your mouse click on the spot where you think last shot should have been. Then quit the electronic correction mode by pressing "**Make correction**" button once again. Following shots will be displayed with this correction.

We don't recommend to use of electronic corrections in case if the shot-holes are grouped further than the 8th ring. In this case it is best to repeat sensor calibration. To open optical sensor calibration window press "**Calibration**" button.

Operating SCATT

For ease of analysis, the aiming trace is displayed in different colors corresponding to various time intervals:

- Green - when you start aiming
- Yellow - one second before shot
- Red - after shot / follow-through

Saving training results

SCATT program automatically saves shooting results in the directory where the files are grouped under the names of shooters. You also can print out training results.

Opening saved result

To open a saved result select “**Open recent sessions**” button on the SCATT Basic software home screen.
In the next window (fig. 8) choose the shooter’s name, the shooting file and click “**Open**”.

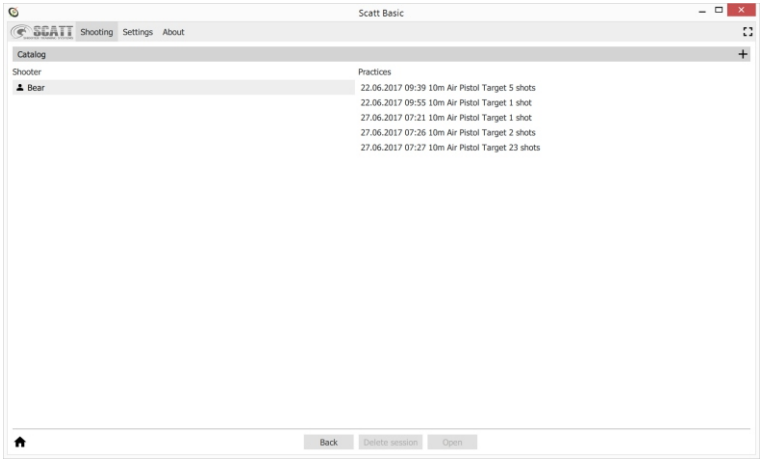


Fig. 8

Additional program features

Additional features

Settings menu

Some program features can be changed or adjusted in the “**Settings**” menu (fig. 11).

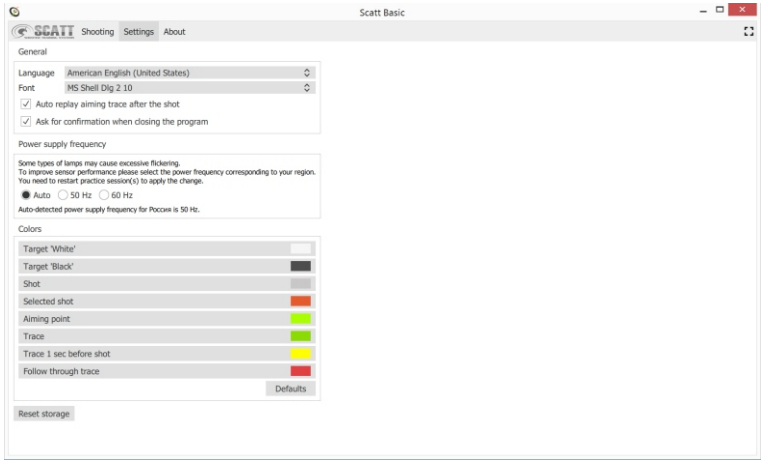


Fig. 11

Service

Clean this device with soft dry cloth. If the surfaces are too dirty, use soft cloth, wetted in suds or in mild soap detergent solution. Newer use solvents or petrol to clean the device.

Sprcifications

Hardware specifications

Optical sensor weight:	29g
Optical sensor dimensions:	26 x 31 x 34 mm
Operating temperature range:	+5 to +37 °C

NOTE

Specifications can be modified by manufacturer without being worded in this manual.
Weight and dimensions are approximate.