

User manual for ML2000 Biathlon



User manual for ML2000

Biathlon

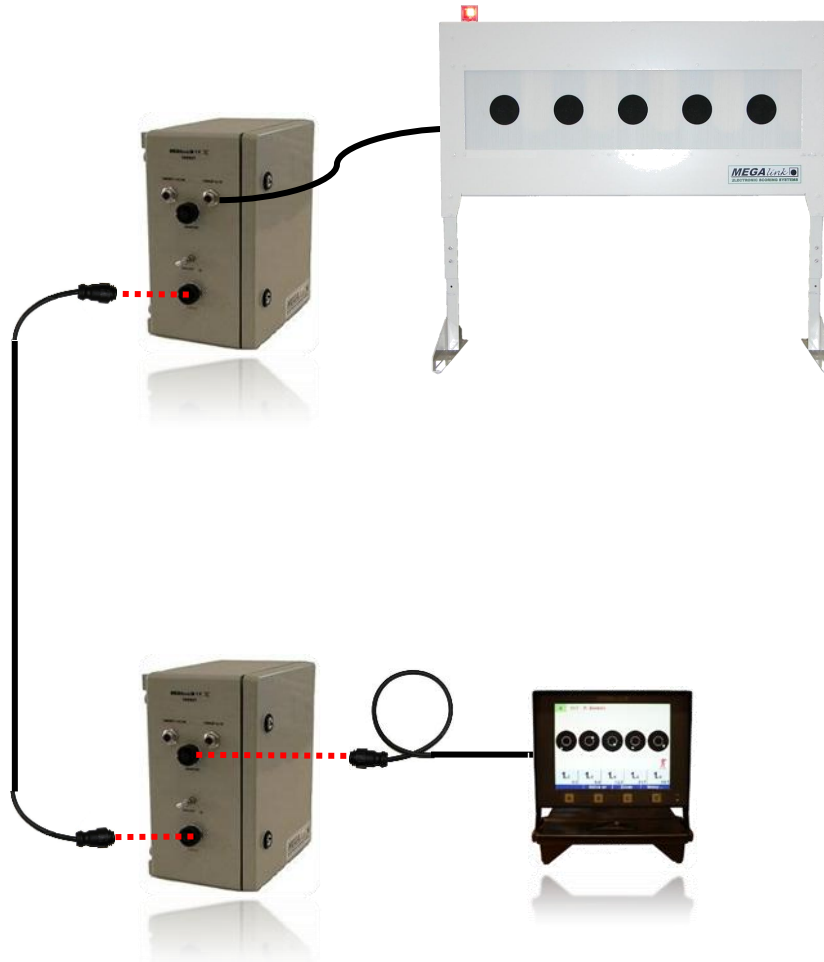
Table of Contents

1	General.....	3
1.1	Wiring overview – single target	3
1.2	Monitor image overview	4
2	Getting started.....	5
2.1	First time assembling of the target	5
2.2	Connection of the system	9
2.3	Monitor configuration	11
3	Shooting.....	12
3.1	5 target BIA.....	12
3.2	10 rings target.....	13
3.3	NSSF Test 1 Target.....	13
4	Maintenance.....	14
4.1	Rubber band	14
4.2	Aiming card.....	16
5	Additional wiring diagrams.....	17
5.1	Up to five targets	17
5.2	Up to ten targets	18

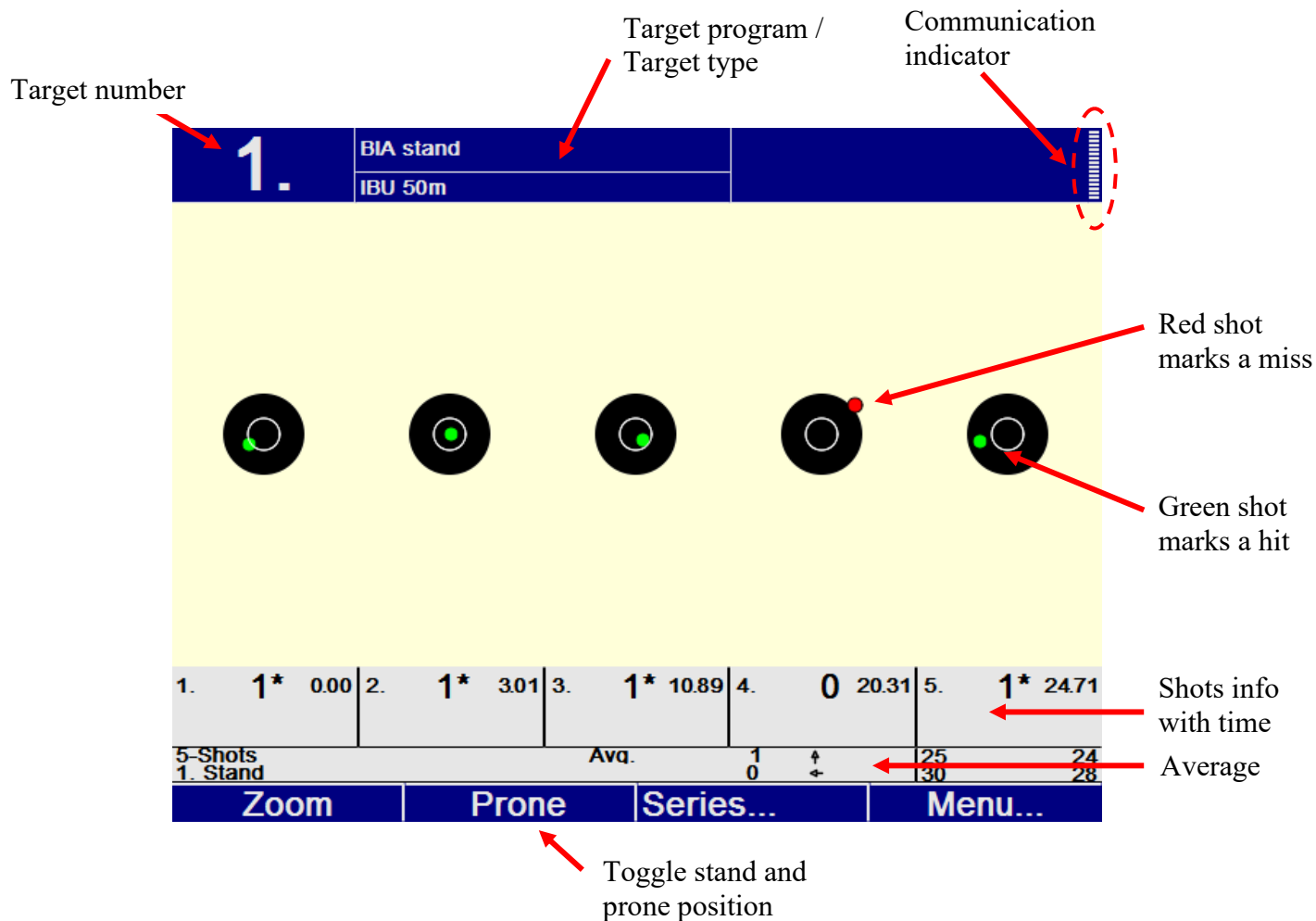
1 General

This document describes how to assembly, connect and use the Megalink BIA1200 target.

1.1 Wiring overview – single target



1.2 Monitor image overview



2 Getting started

2.1 First time assembling of the target

1. Unscrew the wing nuts and remove the front steel cover from the target.



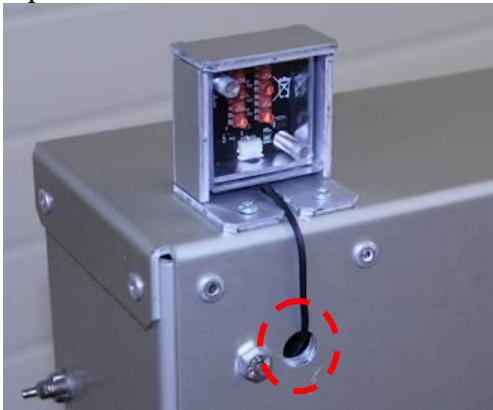
2. Mount the two target stands.



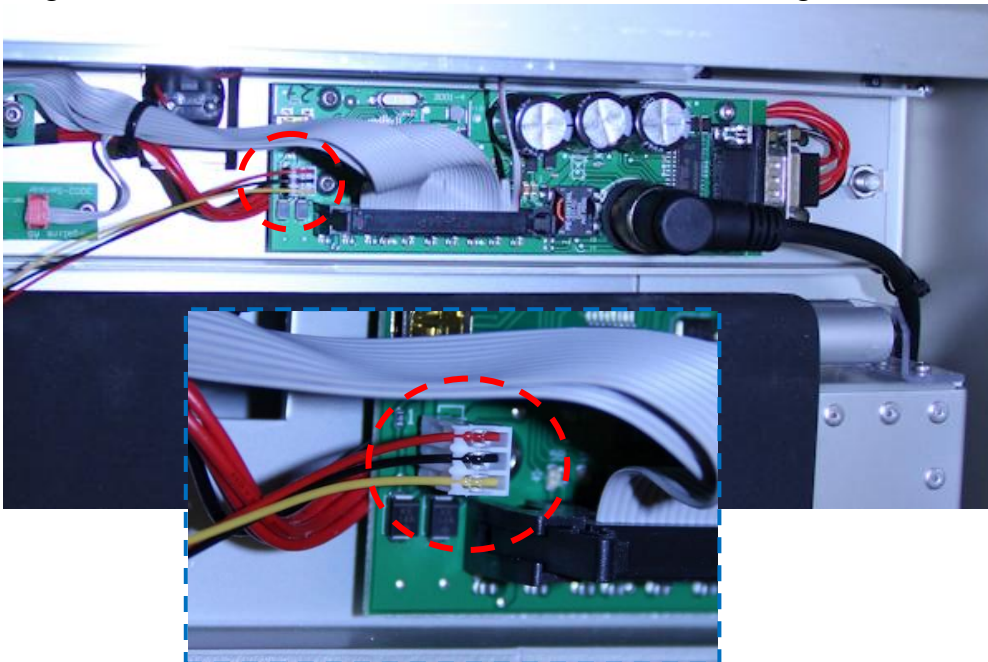
3. Loosen the wing nuts on the sides and remove the rear cover from the target.



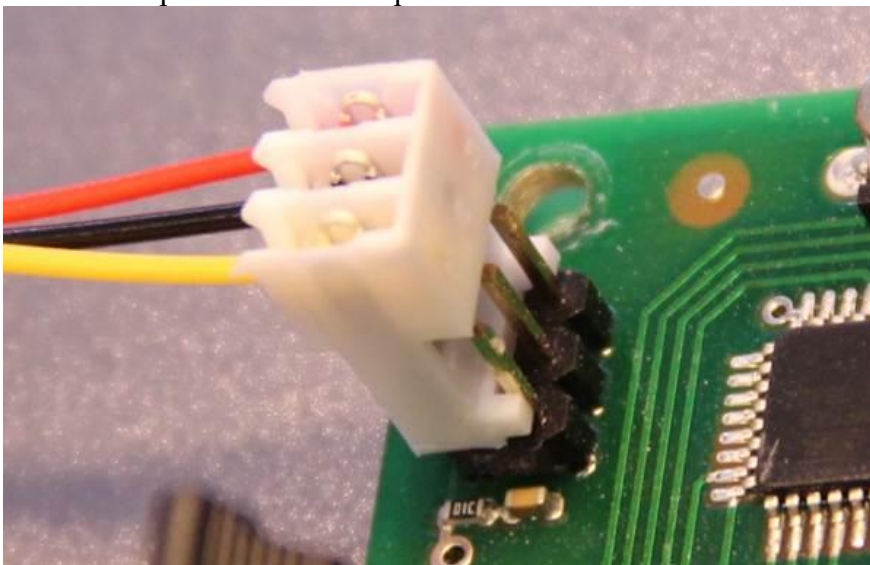
4. Mount the LED indicator. The two holes is placed over the two screws mounted on the top left of the frame. The cable is inserted in the hole below.



5. Plug the cable on the socket on the left of the motor controlling card inside the frame.



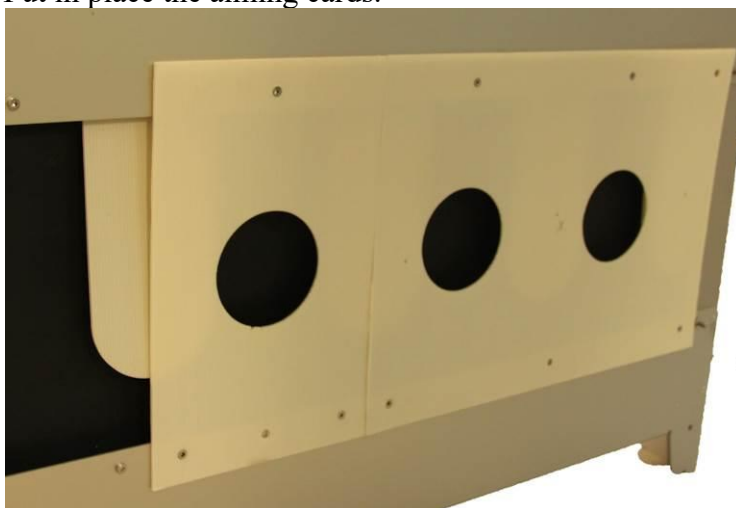
The plug is to be placed on the three pins to the left. There are two "tabs" on the plug to hold it in place on the three pins behind.



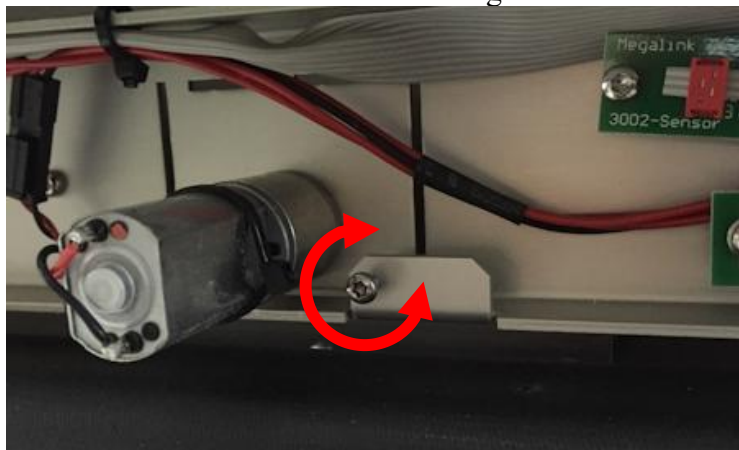
6. Connect the target cable to one of the connections marked "TARGET/NEXT".



7. Put in place the aiming cards.



8. Adjust the self-indicators by turning the screw(s) located by the motor on the rear side. They should be able to run freely and not touch the rubber or the aiming cards.



9. Remount the rear cover.
10. Remount the front plate.

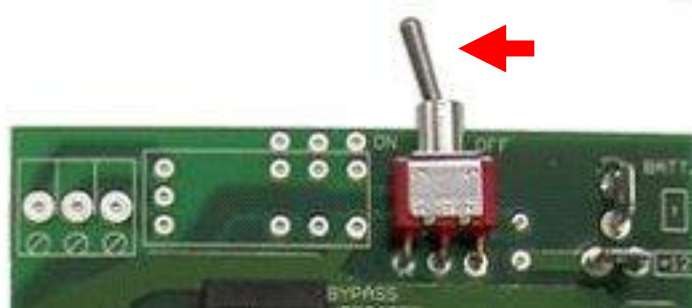


2.2 Connection of the system

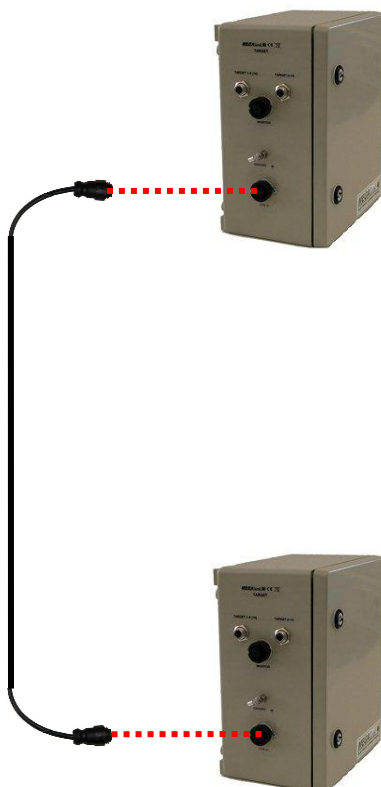
1. Connect the other end of the target cable to one of the connections marked "TARGET" on the target cabinet.



- a. Check that the power switch inside the cabinet is set to "ON".



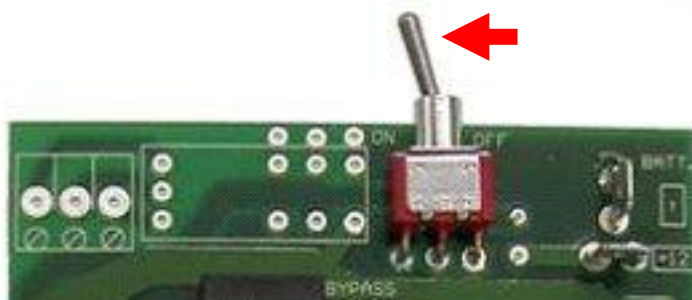
2. Connect the target cabinet to the shooting stand cabinet using the 60 meter cable. Use the connections marked "LINE IN".



3. Connect the monitor to the connection marked "MONITOR" on the shooting stand cabinet.



- a. Check that the power switch inside the cabinet is set to "ON".



4. Press the **D** button to power on the monitor.

2.3 Monitor configuration

The monitor should be preprogrammed with the correct configuration for biathlon training. If the monitor is replaced with a new one, it must be configured as follows:

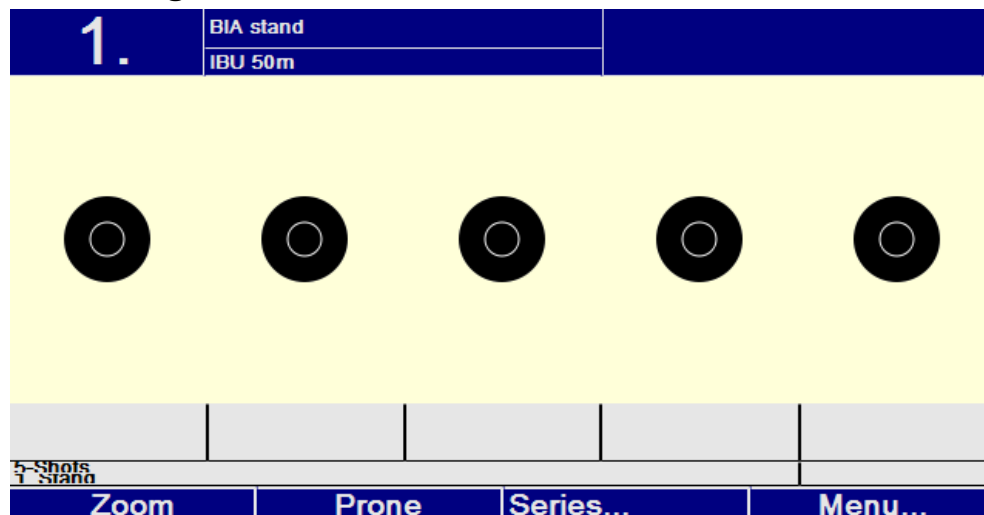
- Select **Menu** → **System setup** → **Advanced** (password = 3) → **Filter Config**.
Set **Organization1** = **IBU**.
Press **Finished**.
- Select **Series** → **5 targets BIA**.

Check that the ID of the monitor is the same as the ID of the target. See the document Monitor Manual for additional information.

3 Shooting

The Series menu can be used to quickly select the course of fire and target type.

3.1 5 target BIA

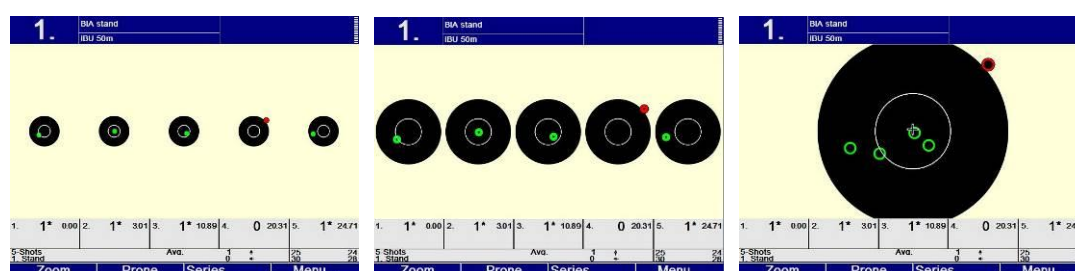


The shooter can switch between stand and prone position by pressing the B button. The LED indicator on the target will light red when target is in stand position.

Shots is marked green if HIT, red if MISS.

There are three zoom levels for different usage:

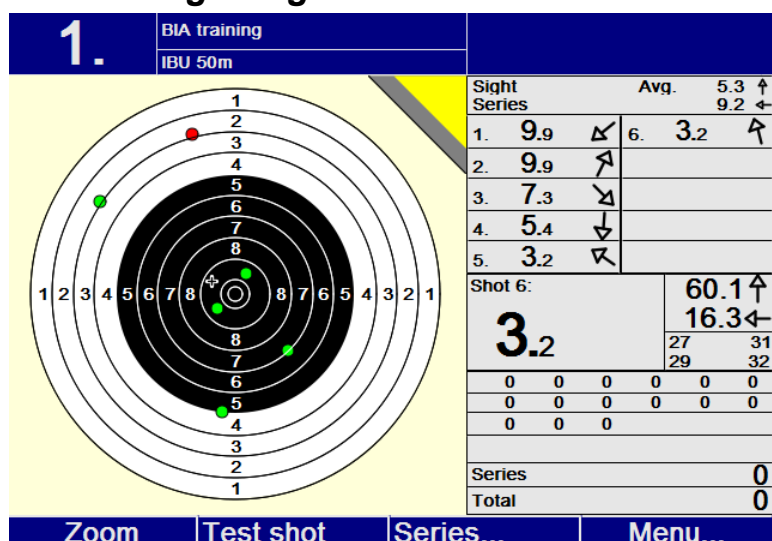
1	The scaling between the five targets and the white area is correct. The same as the physical target.
2	Each target is enlarget for better view. The white area in the middle is lost.
3	All shots are plotted on one single target. Average position is also plotted.



If no button is pressed before 45 seconds after the last shot, next series will be selected and the self-indicators will be reset. For manually selecting next series and reset the self-indicators press the C button twice.

The 45 second timing can be changed in the menu **Menu → Course of fire → Falling target rst.**

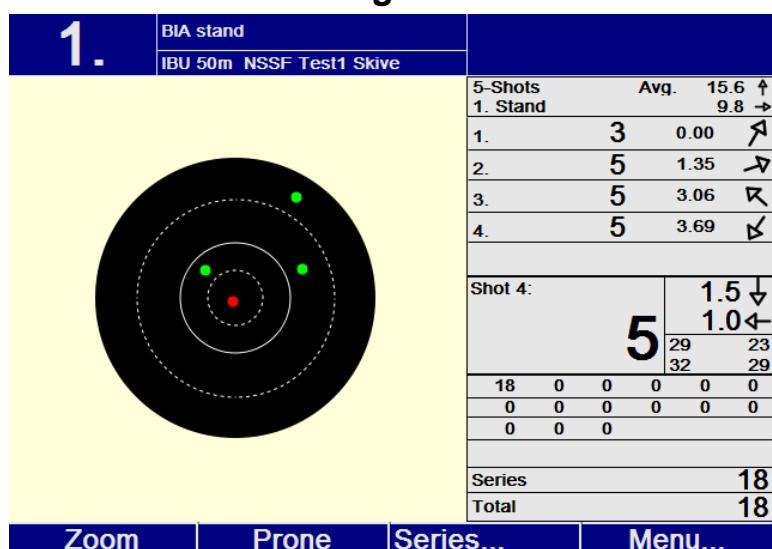
3.2 10 rings target



The target is displayed as a standard 10 rings target. All shots are plotted on the same target. Average position is also plotted.

The last shot is marked red.

3.3 NSSF Test 1 Target



The training target used by the Norwegian Biathlon Federation (Norges SkiSkytterForbund). This is the standard BIA target divided in 4 sections. All shots are plotted on the same target. Average position is also plotted.

The last shot is marked red.

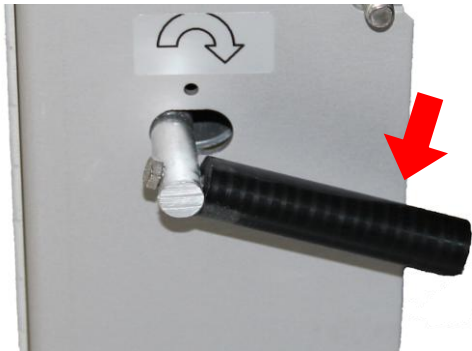
The shooter can switch between stand and prone position by pressing the B button.

4 Maintenance

4.1 Rubber band

The rubber band covering the detection camber must be in good shape. It is important that the band is moved upwards to prevent multiple shots making a bigger hole.

Make a habit of moving the band a little after each session. This can easily be done by moving the handle on the side of the target.



Replacing the rubber band

- Remove the back cover from the target
- Remove the two plastic holders on top of the roller.
- Remove the four wing nuts to loosen the inner frame.
- Slide the inner frame with the rubber band to the right.



- Replace the rubber band on the inner frame.
- Place the roller inside the rubber band and slide the inner frame back to position.
- Tighten the wing nuts and remount the plastic holders.
- Make sure that the rubber band joint is located on the top rear of target.
- The inner joint should be located facing the inside of the target (see image below).
- Replace rubber when joint has moved to bottom rear of target.



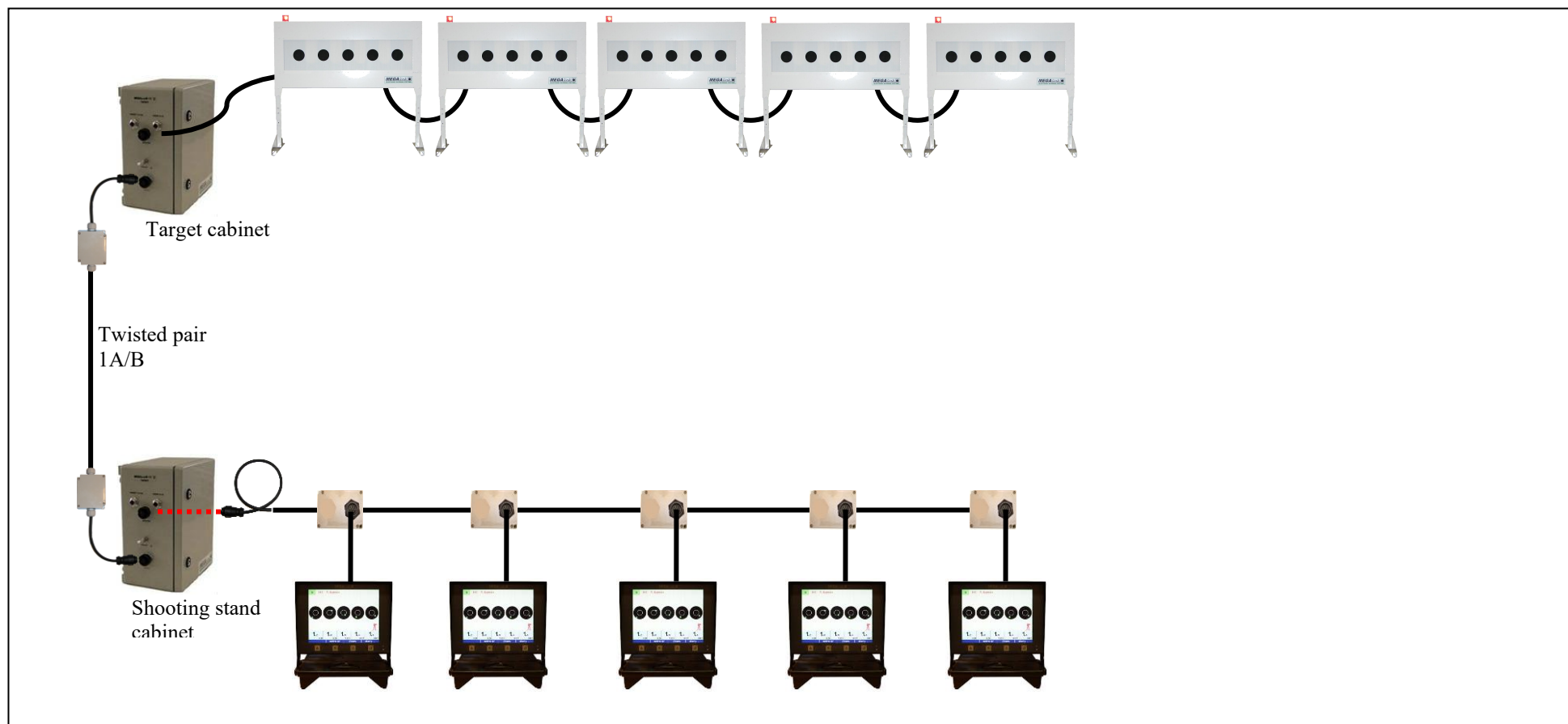
4.2 Aiming card

The aiming cards will over time be perforated. Make sure to remove any parts pointing towards or into the self-indicators. It's important that the self-indicator flaps are running freely.

Replace the aiming card when needed, preferential before any significant events.

5 Additional wiring diagrams

5.1 Up to five targets



5.2 Up to ten targets

