M7Xi IFS / M8Xi IFS RIFLESCOPES

Instruction Manual

STEINER
Nothing Escapes You

TECHNICAL DATA

	M7Xi 4-28x56 mm IFS	M8Xi 1-8x24 mm IFS
Magnification min./max.	4-28x	1-8x
Objective lens dimensions	56 mm	24 mm
Magnification change	7x	8x
Exit pupil	9.2–2.0 mm	9.2–3.1 mm
Interpupillary distance	87 mm–82 mm	85 mm–80 mm
Field of view over 100 m	9.0–1.42 m	34.2–4.8 m
Twilight factor	14.97–39.6	5.14–13.86
Battery	CR 2032; AA 1.5 V	CR 2032; AA 1.5 V
Diopter compensation	+2 to -2 diopters	+2 to -2 diopters
Tube diameter	34 mm	34 mm
Adjustment of the focal plane	first image plane	second image plane
Reticle	MSR 2 / TReMoR 3 / G2B	DMR8i
Illumination	11 illumination levels (7 night & 4 day)	11 illumination levels (7 night & 4 day)
Water tight to a depth of	up to 20 m	up to 20 m
Shock resistant	up to 900 G	up to 900 G
100 % non-fogging	yes (nitrogen filling)	yes (nitrogen filling)
Operating temperature	-32 °C to +63 °C	-32 °C to +63 °C
Storage temperature	-32 °C to +63 °C	-32 °C to +63 °C
Weight	1150 g	820 g
Weight of the protective covers	20 g or 14 g	8 g or 14 g
Length (at 0 diopters)	≤ 393 mm	≤ 270 mm
Elevation adjustment increment	1 cm (0.10 mrad)	1 cm (0.10 mrad)
Elevation adjustment range for 100 m	270 cm	270 cm
Windage adjustment increments	1 cm (0.10 mrad)	1 cm (0.10 mrad)
Windage adjustment range for 100 m	120 cm	120 cm
Parallax compensation (focus)	50 m to infinity	fixed for 100 m
Battery for IFS	Energizer Ultimate Lithium AA (operation time: 8 h at 20 °C)	Energizer Ultimate Lithium AA (operation time: 8 h at 20 °C)

CONTENTS

INTRODUCTION

STEINER is one of the largest manufacturers of high-quality optics in the world. STEINER products meet the highest standards in precision and technology. The riflescopes were developed in cooperation with international weapons experts for the particularly strict requirements of military missions all around the globe. They have been tested in harshest operating conditions by special forces in the field and proven highly successful in combats. The riflescopes from STEINER set new standards in terms of performance, quality, and reliability. They are perfectly suitable both for military missions and official operational purposes.

The latest generation of STEINER riflescopes are optionally equipped with Intelligent Firing Solution (IFS). The IFS provides all relevant data in real time at any given time. The integrated ballistics calculator with environmental sensor system (temperature, atmospheric pressure, inclination, wind drift) determines the projectile's point of impact. The display provides information about leveling and the current turret setting in the field of view.

The display can be customized to user needs. Every information can be moved freely or can be deactivated if needed via app for mobile terminals. To do so, the riflescopes with IFS are equipped with a Bluetooth interface.

This user manual contains all the information you need for the use of the Intelligent Firing Solution (IFS).
Any references in the text to figures and item numbers in the images are indicated in parentheses. Example: (3/4) means fig. 3, item 4.
The definitions "on the right" and "on the left" in the text are always related to the direction of fire.
Important instructions concerning safe handling of the riflescope are emphasized by the warning signs IMPORTANT, or NOTE.

⚠ **IMPORTANT:** Observe these notes to avoid any damage to the riflescope.

DESCRIPTION AND CONTROLS

The operating buttons (1/2) for the Intelligent Firing Solution are located on top of the electronics block. The integrated sensor (1/1) measures ambient temperature, atmospheric pressure, roll, and pitch. The incorporated ballistics calculator determines the target distance as function of the sensor values and the adjusted elevation. The battery compartment (1/3) is fitted to the bottom left of the electronics block.

1 Integrated sensor
2 Operating buttons for the Intelligent Firing Solution
3 Battery compartment

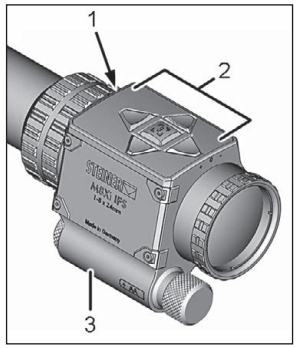

Abb. 1 Intelligent Firing Solution (IFS)

NOTE: The integrated sensor (1/1) must not be covered during use. Otherwise, the IFS will not be able to detect any correct measurement values.

OPERATION

Operating the IFS is done via the following controls:

- On/Off button (2/1)
- Button "to the right" (2/2)
- Button "downwards" (2/3)
- Button "to the left" (2/4)
- Button "upwards" (2/5)

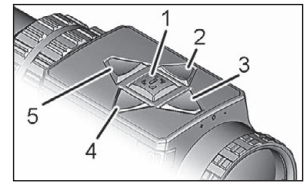

Abb. 2

NOTE: A video with an exhaustive description of the Intelligent Firing Solution is available at https://youtu.be/Ff5A_tz96pE.

If the IFS has been switched on, the ON/Off button (2/1) can be used to go to the next menu or to confirm the selection carried out.
By pressing the buttons (2/2, 2/3, 2/4, and 2/5), you can navigate the menus and change previously set values.

NOTE: All values and settings shown in the following menus are only examples.

NOTE: The IFS is not equipped with a rangefinder. The displayed distance is based on the settings of the riflescope.

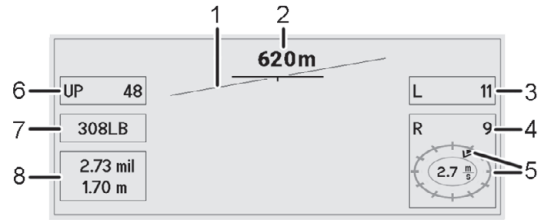

Abb. 3

1. Press and hold On/Off button (2/1) for at least three seconds.

NOTE: The menu can be individually configured by the user. This is done directly via the operating buttons of the IFS or via the STEINER IFS app.

IFS is switched on. The first menu appears in the riflescope and shows the following information based on the factory settings:

- pitch angle (3/1)
- distance to the point of impact (3/2)
- current position of the windage adjustment (3/3)
- recommended position of the windage adjustment (3/4)
- wind speed and wind direction (3/5)
- current position of the elevation adjustment (3/6)
- currently selected ammunition (3/7)
- default target size in m and calculated target size in mil (3/8) at the selected distance (3/2)

Instead of the target size (3/8), the time of flight of the cartridge or the impact energy can be displayed.

2. Press the On/Off button (2/1) again briefly to go to the alternative menu (Fig. 4).

The information displayed in the menu is reduced to the pitch angle, distance to the point of impact, and the current position of the elevation and windage adjustment.

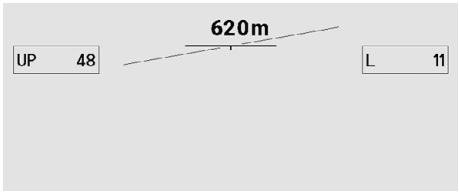

Abb. 4

NOTE: The alternative menu can be switched on and off via the STEINER IFS App.

3. If necessary, correct the wind direction with the buttons "to the right / to the left". To do this, press the buttons until the wind direction arrow (example Fig. 3: wind is coming from the "1 o'clock" direction) shows the correct wind direction.
4. If necessary, correct the wind speed with the buttons "upwards / downwards".
5. To go to the menu for the configuration of the ammunition (Fig. 5): press the On/Off button (3/1) again briefly.
6. To go to the menu for the basic settings for the IFS (Fig. 6): press the On/Off button (3/1) again briefly.
7. To go back to the first menu (Fig. 3): press the On/Off button (3/1) again briefly.

Menu for the configuration of the ammunition

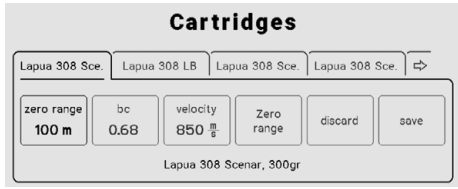

Abb. 5

Select the ammunition used by pressing the buttons "to the right / to the left". The ammunition list is individually adaptable. The types of ammunition saved should be sorted by their velocity in descending order. In doing so, the ammunition with the highest velocity should be placed on the left. The following details are displayed and can be changed:

zero range	zero range
bc	ballistic coefficient
velocity	muzzle velocity

After selecting "Zero range", the zero position of the riflescope is set to the position (windage and elevation) set on the riflescope.

After selecting the second ammunition (cartridge) in the list, the following details are displayed and can be changed:

horizontal	horizontal compensation compared to the first ammunition in clicks
vertical	vertical compensation compared to the first ammunition
bc	ballistic coefficient
velocity	muzzle velocity

All inputs can be either saved or discarded.

NOTE: A horizontal and/or vertical compensation might be necessary in case of a deviating point of impact for the selected zero range (e.g. when using a silencer or other ammunition).

Menu for the basic settings of the IFS

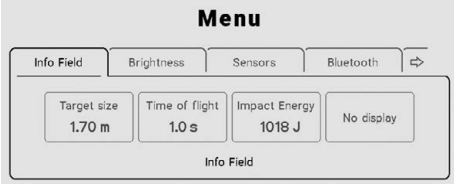

Abb. 6

The following menus can be selected by pressing the buttons "to the right/to the left":

Info Field	for entering the assumed target size, the calculated time of flight of the cartridge, and the calculated impact energy at target distance. The selected information is displayed in the first menu. When selecting "No display", the Info field is not displayed.
Brightness	for setting the brightness of the display.
Sensors	information measured by the integrated sensor (roll angle, pitch angle, compass heading, ambient temperature, atmospheric pressure).
Bluetooth	for the activation of the connection to a mobile device to use the STEINER IFS app.
Setup	for the selection of the menu language and the system of units. German and English are the languages available. The system of units can be either "Metric" or "Imperial.

Replacing battery of the IFS

1. Unscrew knurled screw (7/1).
2. Take battery out of battery compartment (7/2) and replace with new battery (refer to technical data).

NOTE: To be able to use the IFS for at least 8 hours without interruption, it is recommended to use the battery specified in the technical data.

NOTE: The duration of the battery depends on the temperature.

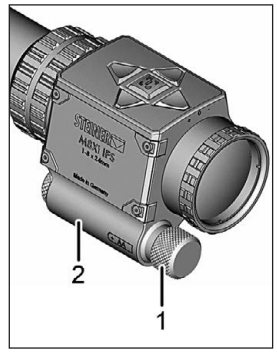

Abb. 7

3. Screw knurled screw (7/1) onto battery compartment. While doing this, make sure the screw is firmly in place.

The STEINER IFS app

With the aid of the STEINER IFS app, all settings of the IFS can easily be entered and then transmitted to the IFS via Bluetooth:

- Configuration of the basic settings
- Importing and maintaining the ammunition data and ballistic data
- Free and easy configuration of the display

The app can be installed on mobile devices. After successful installation, the icon to start (Fig. 8) appears on the mobile device.

NOTE: Bluetooth must have been activated both on the mobile device and on the IFS.

1. Start the app by clicking on the icon (Fig. 8) on the mobile device.

Abb. 8

DISPOSAL

The riflescope contains electrical and/or electronic components and must not be disposed of along with other household waste. Observe the national regulations.

SERVICE AND REPAIR

⚠ **IMPORTANT:** The riflescope may only be repaired by the manufacturer.

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ACCESSORIES

Only use original STEINER accessories. STEINER offers a wide selection of accessories. Riflescopes with 50-mm and 56-mm objective lenses are suitable for the attachment of anti-reflective devices, sun shields, filters, and other accessories.

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