

Ratio Mixer

INSTRUCTION MANUAL

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IMPORTANT CUSTOMER NOTICE

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3 Introduction

3.1 Welcome to the Vögtlin Ratio Mixer

The Ratio Mixer is designed for two Vögtlin SmartTrak2 devices communicating via RS232.

The program supports two modes, Ratio Mix and Individual control.

Visit the Sierra Instruments website <https://www.voegtlin.com/> any time for more information about this product.

The Ratio Mixer offers a variety of features for ease of operation.

- Easy operation
- Monitor and control Vögtlin SmartTrak 2 MFCs
- Send setpoints to the devices
- Change gas, unit and valvemode
- Ratio Mixing and Individual Control
- And many more...visit [www. sierrainstruments.com](http://www.sierrainstruments.com)

3.2 Safety Information

Caution and warning statements could be used throughout this book to draw your attention to important information.

Warning!

This statement appears with information that is important to protect people and equipment from damage. Pay very close attention to all warnings that apply to your application.



Caution!

This statement appears with information that is important for protecting your equipment and performance. Read and follow all cautions that apply to your application.



3.3 Receipt of your instrument

When receiving the instrument, carefully check the outside packing carton for damage that may have incurred during shipment. If the carton is damaged, notify the local carrier and submit a report to the factory or distributor. Remove the packing slip and check that all ordered components are present and match your specifications (as ordered). Do not return any equipment to the factory without first contacting Technical Support Center.

4 Installation

The installation of the software needs the Setup.exe or the RatioMixer Setup.msi.

4.1 System Requirements

The software is developed to meet the following minimum system requirements:

OS: Windows 7

CPU: i3

HDD: 100 mb free.

RAM: 2 GB

Comm: 2 free RS232 COM Ports

The .NET Framework 3.5 SP1 is software prerequisite.

4.2 Install RatioMixer

Start "Ratiomixer_Setup.msi", the welcome screen (figure 1) appears.

To start the installation press 'Next'.



Figure 1: Welcome screen of Installation Package

If the .NET Framework 3.5 SP1 is not installed instead of the welcome screen a warning window is shown
Download and install the required framework.

After starting the installer Windows could show the 'User Account Control' warning. Only when 'Yes' is pressed the installation can continue.

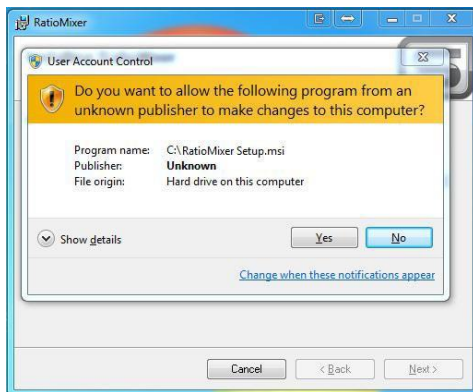


Figure 2: User Account Control shows a warning.

While installing the Ratio Mixer Software please stand by and wait until it completes.

When the installation is completed press the 'close' button (figure 3).

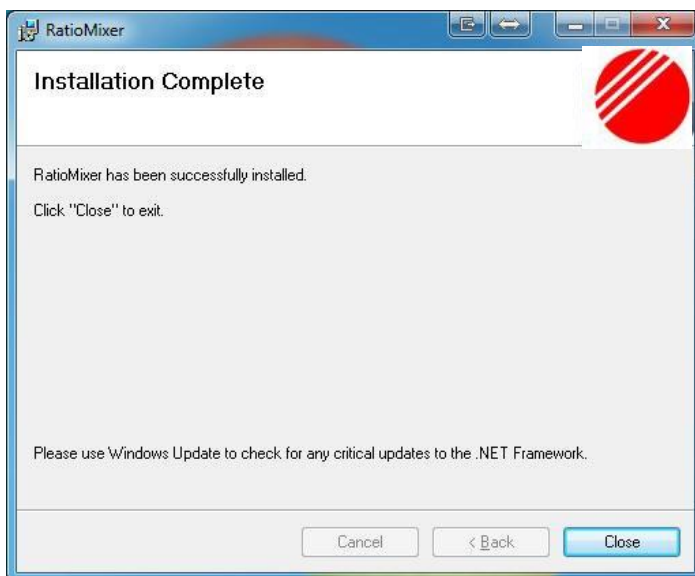


Figure 3: Installation of the Ratio Mixer is finished.

5 Starting Ratio Mixer for the first time

After installation it's time to run the Ratio Mixer software for the first time.

The installation package has created a shortcut (figure 4) on your desktop. You can double click this shortcut to launch the program. Alternatively you can access the Ratio Mixer by browsing your Start Menu (figure 5).



Figure 4: Shortcut to the Ratio Mixer at the desktop.

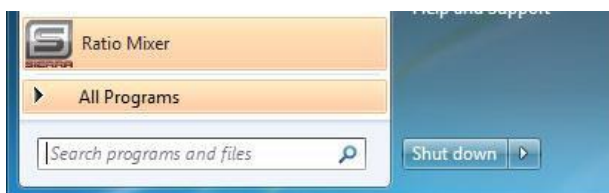


Figure 5: A shortcut is created in the Startmenu

Click one of the shortcuts to start the program.

The first time the program starts the screen is showing only the menu bar (figure 6).

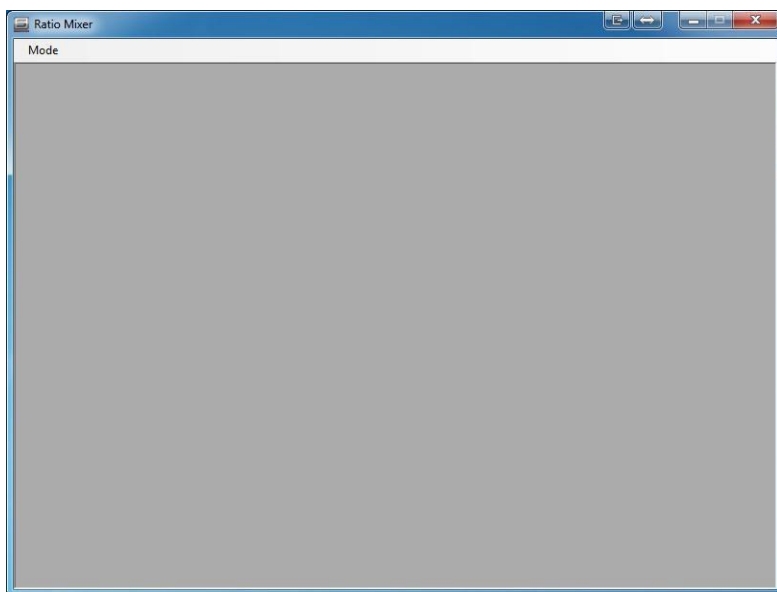


Figure 6: Ratio Mixer Started for the first time

Click 'Mode' at the left upper corner of the screen, and select 'Mixer' (figure 7).

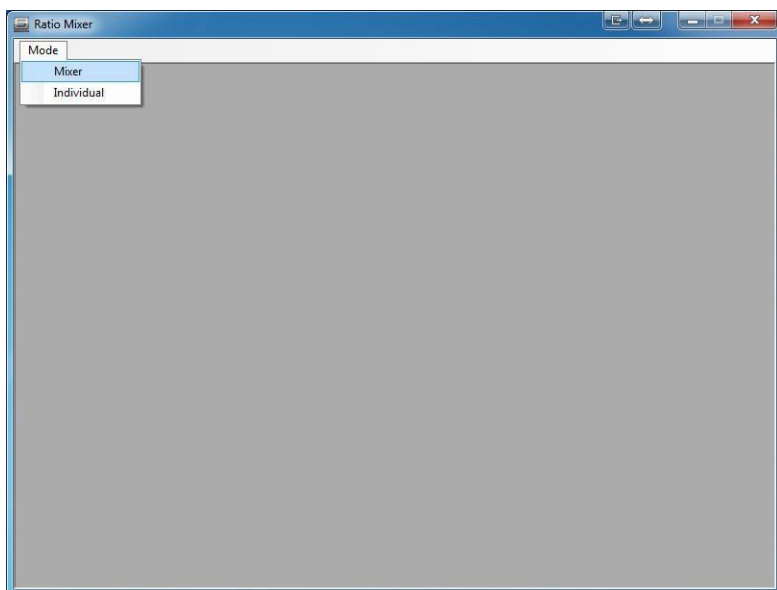


Figure 7: Select the mode for the program, Mixer or Individual

When first started, the screen remains inactive.

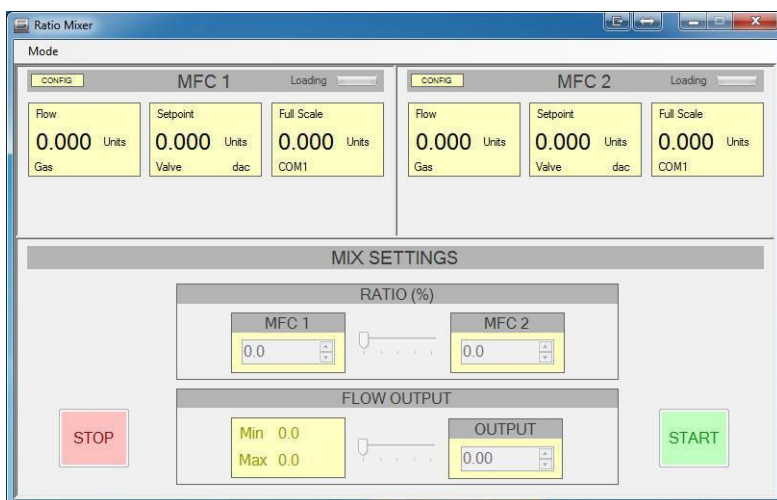


Figure 8: Inactive screen, no COM ports have been selected

First the comport needs to be selected. Press the config button to open the settings.

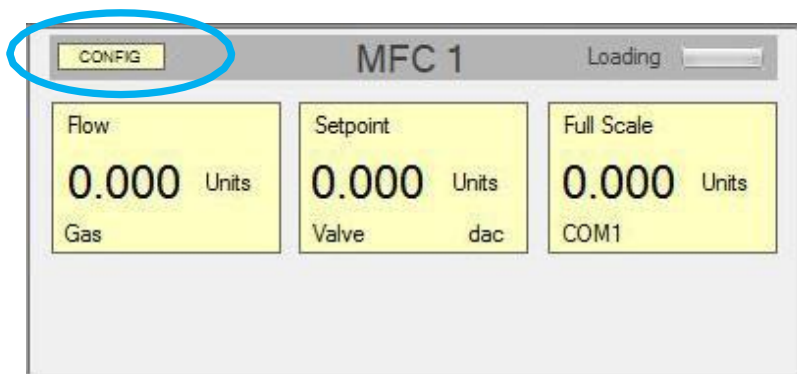


Figure 9: Open the Config Screen to set the comport

After pressing the config button the configscreen is shown.

Most of the functions are disabled, these functions are only available when the program communicates with an MFC.

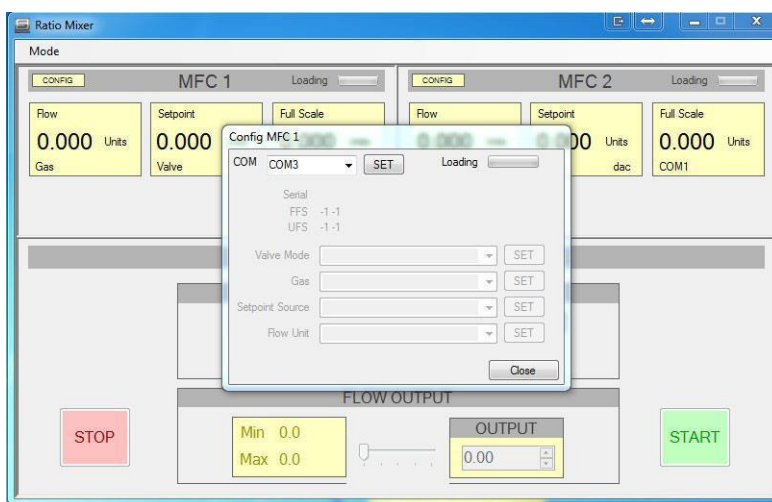


Figure 10: Mixer screen with no active MFCs

Select a COMPort and press the 'SET' button (figure 11).

When the MFC is connected and working properly the 'Loading Bar' becomes green.

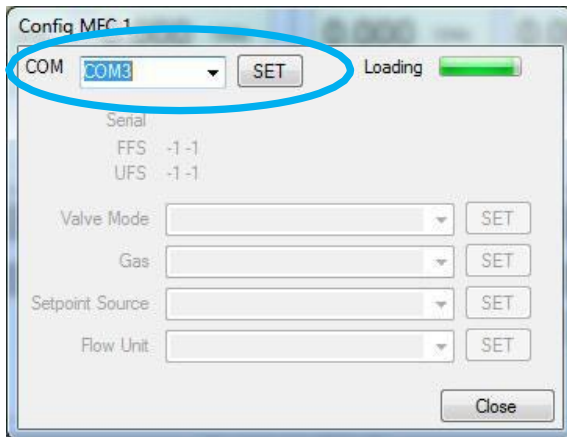


Figure 11: Config screen, the MFC on COM3 is loading

After loading all the data from the MFC the other functions on the Config screen are activated (figure 12).

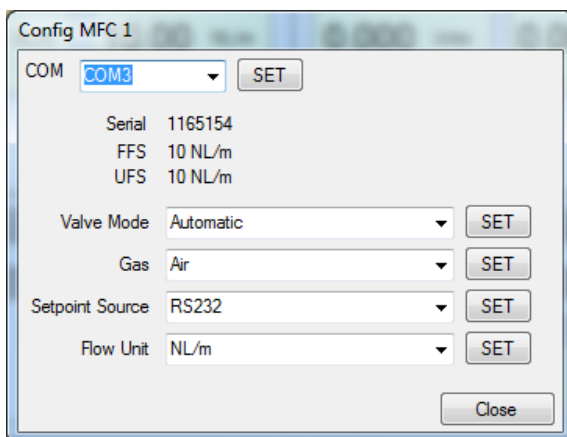


Figure 12: Config screen, the MFC is fully loaded and ready to go

Please note that modifications to the settings are not applied until the 'SET' button is pressed.

6 Ratio Mix

To create a ratio mix two Sierra SmartTrak2 devices are needed.

Make sure the two MFCs are connected and communicating (see chapter 5 on page 9).

In case the MFCs are not set to the same flow unit, the program automatically sets the second MFC to the same flow units as the first MFC.

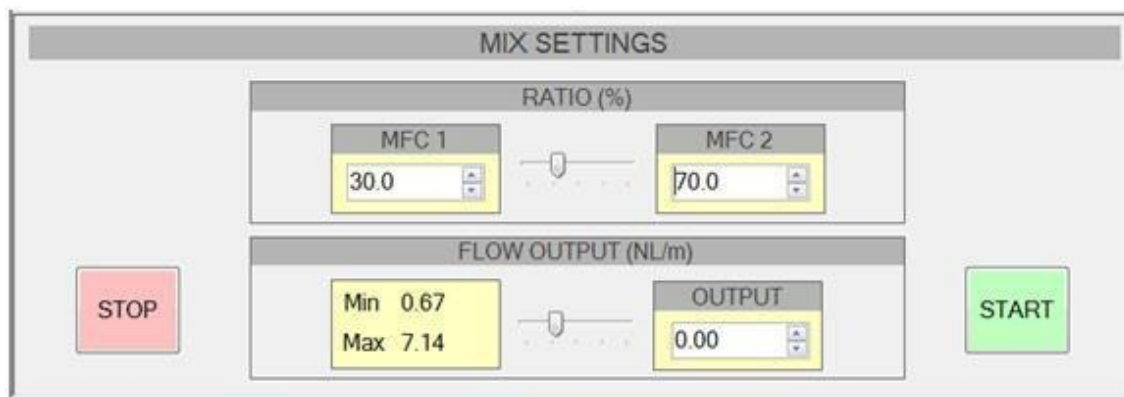


Figure 13: The mixing console allows the user to create a mix

Set a contribution ratio for one of the MFCs. The contribution for the other MFC is set automatically.

Depending on the Ratio setting and the minimum and maximum flow output for each MFC the output for the mix is determined. The minimum and maximum mix output are displayed by the left yellow box in the 'Flow Output' Section.

Set the desired flow rate and press 'Start'. When the desired flow rate is adjusted, repress start to apply the new settings.

Pressing stop will stop both MFCs.

7 Individual Control

To activate individual control click 'Mode' at the left upper corner of the screen and select 'Individual'.

(see figure 7 at page 10)

Now the Ratio Mixer is set to individual control, allowing to control each MFC independently.

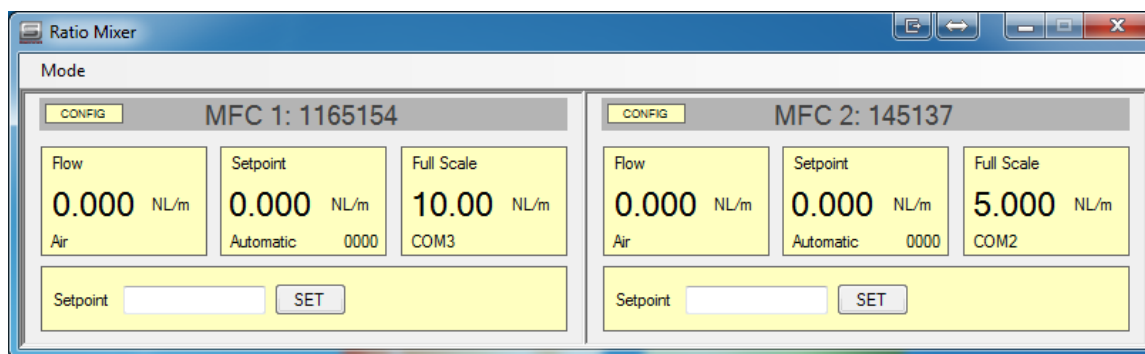


Figure 14: Individual mode is selected, now both MFCs can be controlled separately

To enter a set point for the MFC, fill in the desired flow rate in the set point box and press enter, or the 'SET' button.

To stop an MFC enter set point '0'.

8 Technical Support & Service

8.1 Technical Support

If you encounter any problem with your instrument, review the configuration information for each step of the installation, operation, and set up procedures as explained in this manual. Verify that your settings and adjustments are consistent with factory recommendations.

If the problem persists, Sierra Instruments BV is eager to help you. You may contact us at the following Technical Support Center. It may also help to call your Sierra Instruments Sales Agent, who is also well trained in the operation of the product.

IMPORTANT: When contacting Technical Support, make sure you have included the following information:

- Serial number (all marked on the instrument data label).
- The problem you are encountering and any corrective action taken.
- Screenshots
- System specifications

8.2 Customer service and Support Information

Technical/Sales Support:
Vögtlin Instruments GmbH
St. Jakob-Strasse 84
4132 MuttENZ
Switzerland

Tel: +41 61 756 63 00

Fax: +41 61 756 63 01

8.3 Returning Equipment to the Factory



It is recommended that the MFC's are calibrated once every year.

Vögtlin Instruments Website:

<https://www.voegtlin.com/>