
VFS-FR3 Manager

Software Manual

Ver.1.0.0

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KONDO KAGAKU CO., LTD



Introduction

Thank you for using the VFS-FR3 Manager. This software is designed for configuring the VFS-FR3. Please read the following information carefully before use.

Disclaimer

- This software is free software. Redistribution is permitted, but please ensure that the software manual is distributed together with it.
- The copyright of this software, as well as the rights to the Kondo Kagaku logo and related trademarks, belong to Kondo Kagaku Co., Ltd.
- Unauthorized sale or leasing of this software is prohibited.
- Use this software at your own risk. The author assumes no responsibility for any issues that may arise from using this software.
- This software may be modified or updated without prior notice.
- Do not disassemble, decompile, or reverse engineer this software.

System Requirements

- .NET Framework4.8 or higher
- This software has been tested on Windows 10 and Windows 11.

Supported Products

- VFS-FR3

Note: This software does not support VFS-FR2 or earlier products. Please download and use the appropriate manager software for each product from [this page](#).

Instructions for Use

Installation and Uninstallation

After extracting the files, please confirm that the following files are present in the folder:

- FR3_ManagetSoft_VERxxx.exe (Executable file)
- VFS-FR3_DefaultValue_V100.fr3
- VFS-FR3_ManagerSoft_Manual_Ver100.pdf
- VFS-FR3_ManagerSoft_Manual_Ver100en.pdf (This file)

To uninstall, simply delete the folder containing the extracted files.

Required Products

Please have the following product ready to change the settings of the VFS-FR3.



- [VFS-FR3](#)



- [ICS-USB Adapter HS](#) (No.61028)
- Battery (Use a battery for RC cars. Supported voltage: 6.6V to 8.4V)

Install the Driver

Please install the KO Driver to ensure the ICS USB Adapter HS is recognized by your PC. The driver can be downloaded from the following page. For installation instructions, please refer to the included manual.

["KO Driver 2023"](#)

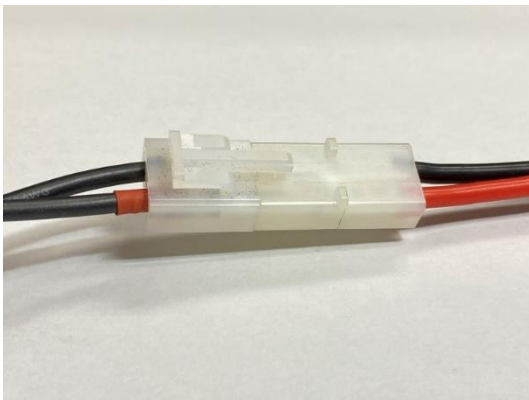
Connecting Device

1) Connect the female end of the black-and-white cable included with the ICS USB Adapter HS to the cable of the VFS-FR3, and connect the male end to the ICS USB Adapter HS. Please ensure the connector is inserted correctly, as the connector has a latch and can only be plugged in one way.



2) Connect the RC car's battery to the power terminal of the VFS-FR3.

Note: Do not turn on the power yet.



3) Connect the ICS USB Adapter HS to a USB port on your PC.

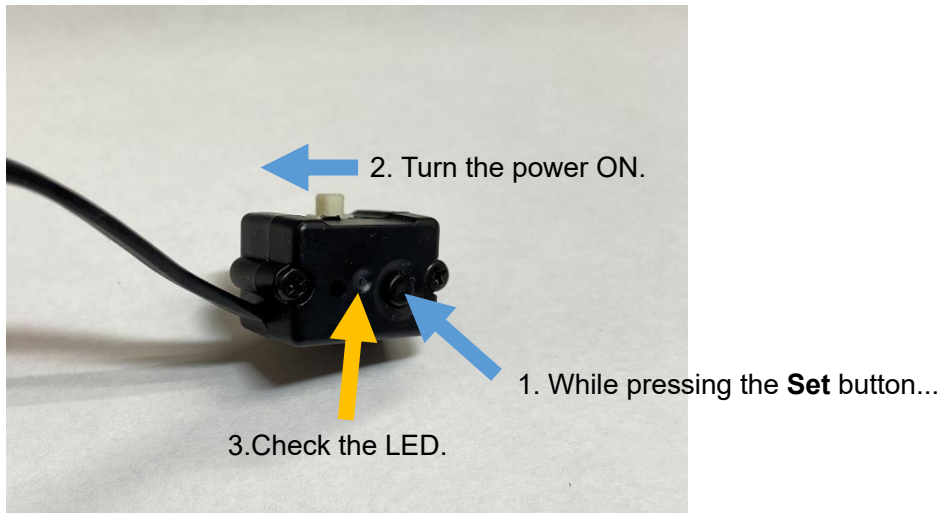


The connection is now complete.

To enable communication between the PC and the VFS-FR3, you need to start the VFS-FR3 in "Communication Mode."

Follow these steps:

1. With the VFS-FR3 powered off, press and hold the Set button.
 2. While holding the Set button, turn the power on.
 3. Once the LED lights up, release the Set button.
 4. The LED will briefly turn off and then light up again.
- This indicates that the VFS-FR3 has entered "Communication Mode."



Note:

- If the LED turns off once and then starts blinking, communication with the PC has not been established. Please reconnect the ICS USB Adapter HS or power cycle the VFS-FR3 and start it again in "Communication Mode."
- While in "Communication Mode," the remote control cannot operate the VFS-FR3. Please power cycle the device before operating the RC car.

Running the Software

Double-click "FR3_ManagetSoft_VERxxx.exe" to run the software.

Functionality Description

Basic Operations



1. COM

Select the COM port number recognized by the ICS USB Adapter HS on the PC. Once the COM port number is selected, communication with the PC will begin.

You can check the COM port number in Windows' **Device Manager**. For details, please refer to the installation manual included with the KO Driver. Only the COM port numbers recognized by the PC will be displayed in this section.

If no number appears, the PC may not have recognized the USB adapter. In this case, try reconnecting the USB adapter or restarting the PC. If the issue persists, reinstall the driver.

2. WRITE Button

Write the settings from the manager to the VFS-FR3.

3. READ Button

Read the settings from the VFS-FR3 into the manager and display them.

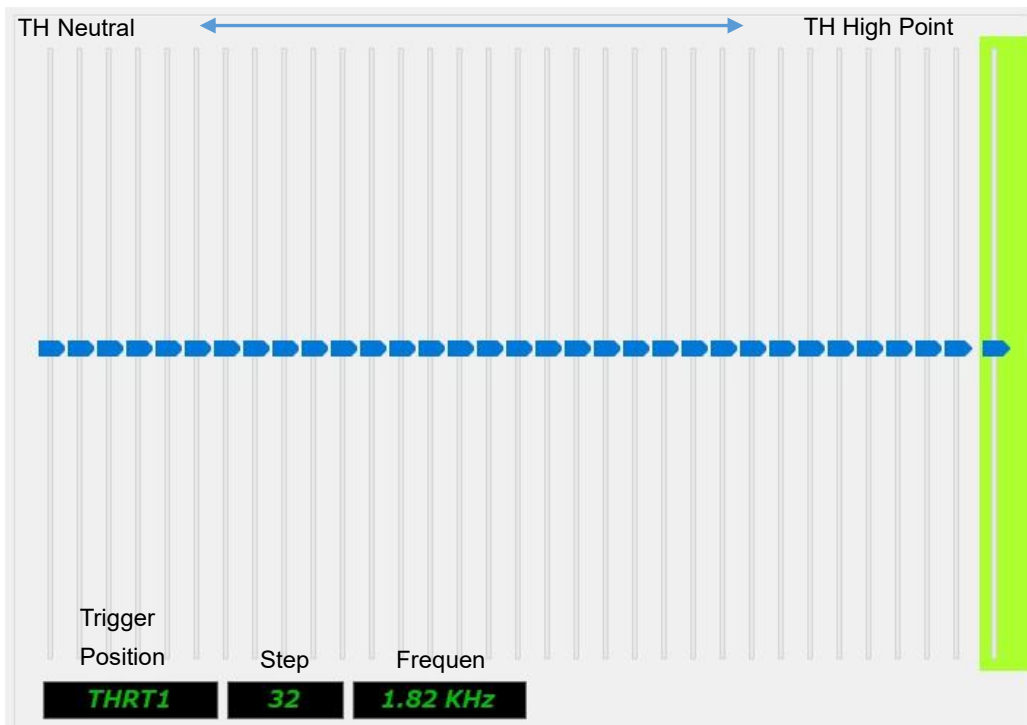
4. SAVE Button

Save the settings from the manager. To save, enter the desired file name in the text field located at the top of the button.

5. LOAD Button

Load the saved settings file from the PC into the manager.

Settings Items



Forward Frequency Setting

You can set the frequency for forward movement. The frequencies from neutral (beginning of trigger pull) to the high point are arranged in 32 steps from left to right. By moving each trackbar up or down, you can adjust the frequency. A lower frequency will result in stronger power, while increasing the frequency will provide smoother movement. Typically, setting a lower frequency for the motor's startup (beginning of trigger pull) and gradually increasing it can optimize the motor's performance.

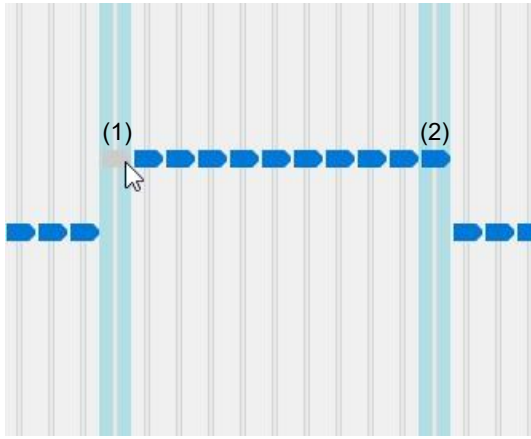
Simultaneous Operation

The green trackbar on the right allows you to adjust all the trackbars simultaneously, moving them up or down at the same time.

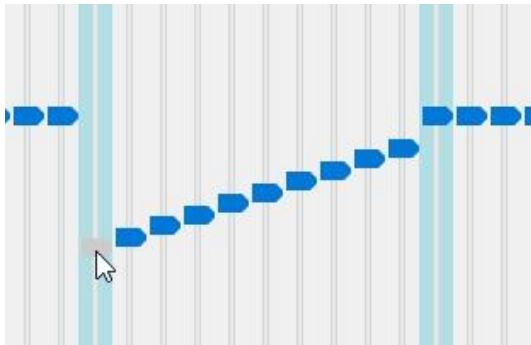
Range Selection Operation

This function allows you to simultaneously adjust the trackbars within a specified range.

1. First, select the first trackbar as the starting point of the range (Figure 1).
2. Then, while holding down the **Shift** key, select the trackbar at the end of the desired range (Figure 2). This will highlight the two trackbars in blue, marking them as the selected range.
3. While holding the **Shift** key, adjust the selected trackbars up or down, and all the trackbars within the range will move simultaneously.



While holding down the **Ctrl** key, adjust the trackbars up or down, and the trackbars within the range will move, with the other blue trackbar as the pivot point, causing them to tilt accordingly.



[Tip]

There are different ways to adjust the trackbars. Please use the method that suits you best:

- Use the mouse to drag the blue knob of the trackbar.
- Select the trackbar and use the Up and Down arrow keys on the keyboard to adjust it.

ブレーキ周波数 (Brake Frequency)
63 : 7.00 KHz

TH モード(Running Mode)

☒ FORWARD/BRAKE・REVERSE
☐ FORWARD/REVERSE
☐ FORWARD/BRAKE

パワーセーブボルテージ (Low Volt Cut)

☐ NiMH
☒ LiFe
☐ LiPo

Power Save Voltage 6.0V

電流リミット(Current Limiter)

☐ 60A
☐ 90A
☐ 120A
☐ 150A
☐ 180A
☐ 210A
☐ 240A
☒ OFF

Brake Frequency

You can set the frequency for brake operation. The lower the frequency, the stronger the power; the higher the frequency, the smoother the operation.

Running Mode

You can choose the throttle operation from the following options:

- Forward + Brake + Reverse
- Forward + Reverse
- Forward + Brake

Low Volt Cut

You can select the drive battery to be installed in the machine and set the cutoff voltage.

Display	Battery	Cutoff Voltage
NiMH	Nickel-Metal Hydride Battery (6 Cells)	2.5V
LiFe	Lithium Iron Phosphate Battery (2 Cells)	6.0V
LiPo	Lithium Polymer Battery (2 Cells)	6.4V

Current Limiter

You can limit the current flowing through the VFS-FR3.

TH バックタイマー (Reverse Timer) [ms]

RF Mode ☐ ADV ☒ TLMY ☐ - 3.0 v

Response ☒ Nomal ☐ HCS

☐ 100 ☐ 150 ☐ 200 ☐ 250 ☐ 300

☒ 350 ☐ 400 ☐ 450 ☐ 500 ☐ 550

☐ 600 ☐ 650 ☐ 700 ☐ 750 ☐ 800

Reverse Timer

You can set the time it takes for the vehicle to transition from brake to reverse operation.

The **"Reverse Timer"** will change based on the relationship between the **"RF Mode"** and **"Response"** settings in your remote control, as this affects the processing time. Please check your settings and select the appropriate **"RF Mode"** and **"Response"** buttons before adjusting the **"Reverse Timer"**.

Note:

If you are using a third-party remote control, enter the communication speed in the **"RF Mode"** field. If the communication speed is unknown, you can leave it at the default value of **3** and adjust the setting while testing the vehicle to match the desired operational feel. If everything works well, you can continue using the default settings.

ニュートラルブレーキ (Drag Brake)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

☐ 6 ☐ 7 ☐ 8 ☐ 9 ☒ OFF

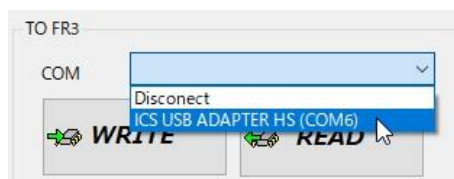
Drag Brake

You can apply the brake when the throttle returns to the neutral position (when the trigger is not being pulled). The larger the value, the stronger the braking force.

Manager Software Usage Procedure

This section describes the steps from starting the manager to writing the settings.

- 1) With the ICS USB Adapter HS connected to the PC, select the COM number.



- 2) Turn on the VFS-FR3 in "Communication Mode". (See "Connecting Device" for the procedure.)

- 3) Press the "READ" button to expand the set values in VFS-FR3 to the manager.



- 4) Change each setting value. When the setting value change is complete, press the "WRITE" button to write the setting value.



The setting changes are now complete. Please restart the VFS-FR3 and then proceed with driving.

How to Write a Published Configuration File

To write a published configuration file, click the "LOAD" button, select the relevant file, and load it into the manager. Once the file is loaded, click the "WRITE" button to apply the settings to the VFS-FR3.

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