FAQ Combivis 5 Tutorial

HSP5-Compatible Cable Instructions

Part	Version	Revision	Date	Status
en	1.0	000	2025-11-20	Released

Contents

Materials Needed

Materials needed are:

- KEB F5 drive
- USB to TTL 5V-signal adapter with Tx, Rx, RTS, and CTS pins
- Male DB9 breakout board
- Combivis 5 (files provided by KEB America)

Adapters with the FT232RL chip are confirmed to work and do not require any additional driver downloads on Windows. Adapters with different chips may also work and may require downloading additional drivers. The adapter used in these instructions is ASIN: B089377GXB.

Fig. 1: USB to TTL 5v 6 Pin (ASIN: B089377GXB)

FAQ Combivis 5 Tutorial

1. Build HSP5-Compatible Cable

The X4A communications port on the F5 drives uses the HSP5 protocol to communicate with F5 operators or Combivis 5 (legacy) software. HSP5 uses TTL 0 and 5V signals.

Make sure to follow this wiring diagram exactly as described. The DB9 port on the KEB drive has 24VDC output pins, and if these pins are wired, they could damage your PC as the USB interface is 0-5VDC.

Your USB to TTL Adapter should have 6 flying leads. Your DB9 breakout board should have 9 terminals. Connect the correct flying leads to the terminal numbers as described below:

Table 1: Wiring Diagram

USB–TTL Signal	DB9 Pin / Function
RxD	Pin 2 (TxD)
TxD	Pin 3 (RxD)
GND	Pin 5 (GND)
RTS	Pin 7 (E_RxD)
CTS	Pin 8 (E_TxD)

Warning

DB9 Pins 4 and 9 on the KEB drive are 24VDC+, do not wire anything to these pins! You can also leave DB9 Pins 1, 6, and 9 empty. TTL Flying Lead “VCC” should not be used.

Power on the drive, connect the USB end to your PC and the DB9 male end to the KEB drive “X4A” female DB9 port labeled “Not for PC.”

Fig. 2: X4A Port

2. Downloading Combivis 5

Download and run CV56_Base.exe

If it runs successfully, you should see the following prompt. If you do not, it's recommended to try an older computer or use a virtual machine. Combivis 5 is supported on Windows 7, Vista, XP, 95, and 3.1. For this example, Combivis 5 was used on Windows 10 without using compatibility mode.

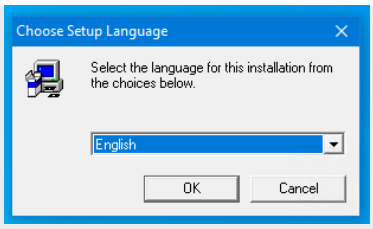

Fig. 3: Choose Setup Language

When prompted, choose the "Typical" setup. It's recommended to choose the following destination folder as it uses the older 32-bit system:

```
C:\Program Files (x86)\KEB
```

Continue through the prompts. If installation was successful, you will see:

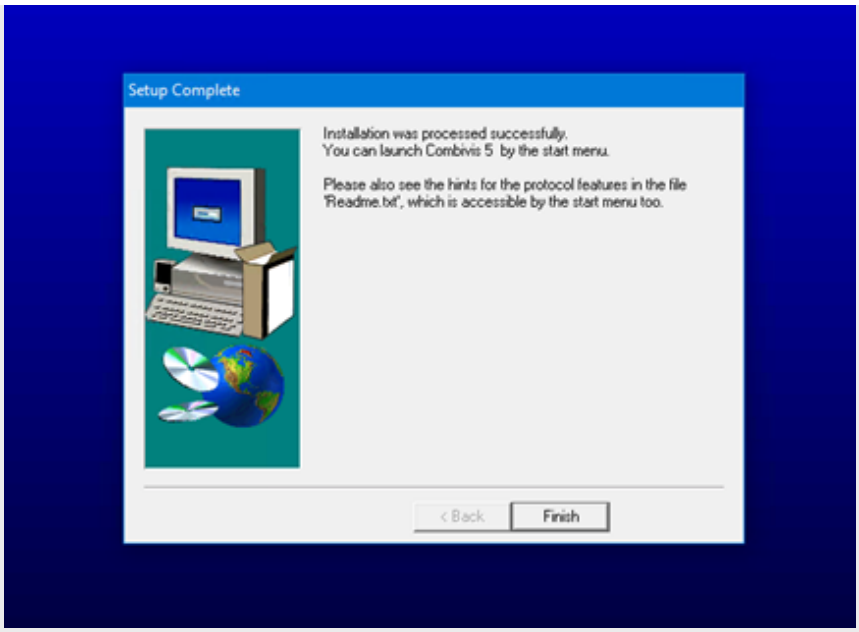

Fig. 4: Setup Complete

3. Downloading Parameter Files

Next, download the parameter files for the specific KEB drive that you have. For this F5-specific HSP5 tutorial, download Para_Inverter.exe.

- Para_Inverter.exe (Para Files for F5, B6, G6, H6, R5, R6)
- Para_F4C.exe (Para Files for F4C)
- Para_F4S_F4F_S4_R4.exe (Para Files for F4S, F4F, S4, R4)
- Para_F0_F1_F2_56.exe (Para Files for F0, F1, F2, 56)

After downloading and running the correct file, you will be greeted by the following screen. Click “Start Update.”

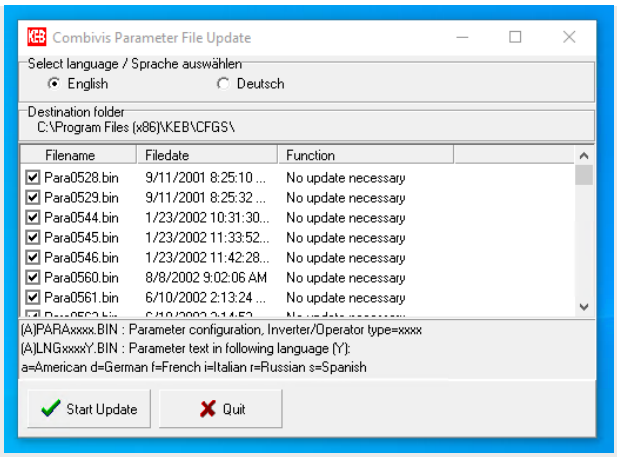

Fig. 5: Start Update

Once completed, you can click “Quit.” You can now open Combivis 5 by using the shortcut “Windows + S” and search for “COMBIVIS5,” or select the COMBIVIS5 shortcut on the desktop if created.

4. Using Combivis 5

Once Combivis 5 is opened, it will automatically start searching for a drive. If it doesn't find a drive right away, you will be prompted to "keep on searching with different baud rates?" Select Yes. If it is still unsuccessful, you can say "No" to selecting a configuration for node 1. Select "Yes" to start a new project.

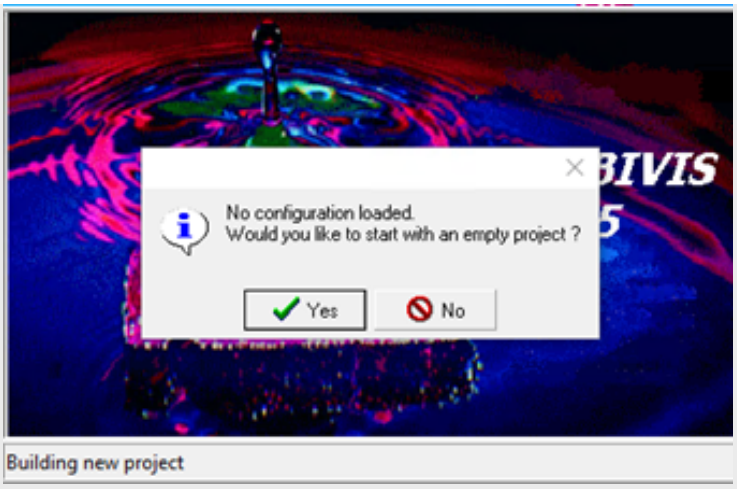

Fig. 6: Start Empty Project

Go to Edit > Configuration

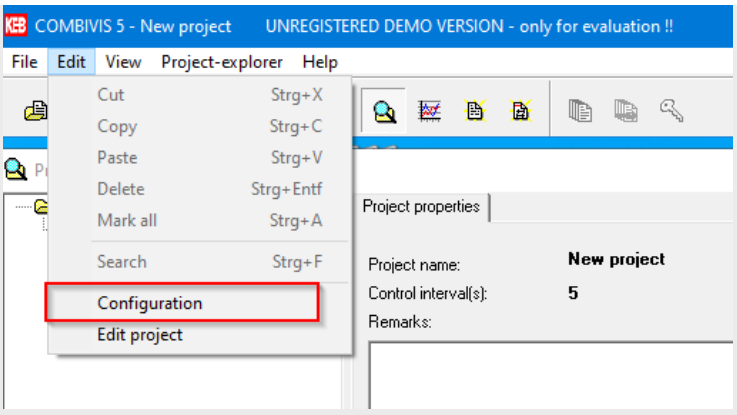

Fig. 7: Open Configuration

Go to “Default Project,” and make sure “HSP5” is selected.

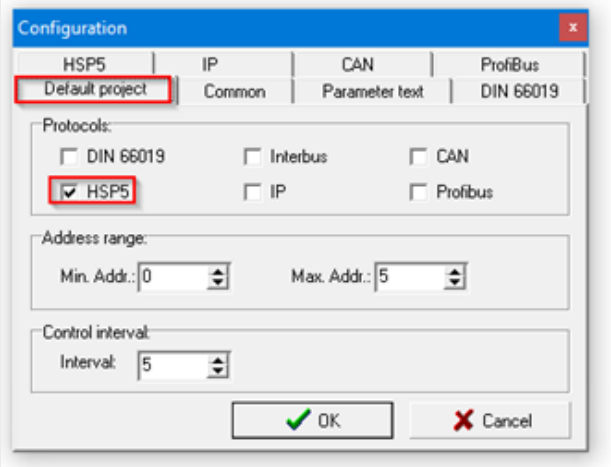

Fig. 8: Select HSP5

Plug USB adapter into PC. Open Device Manager > Ports. In this case, the COM port is 7.

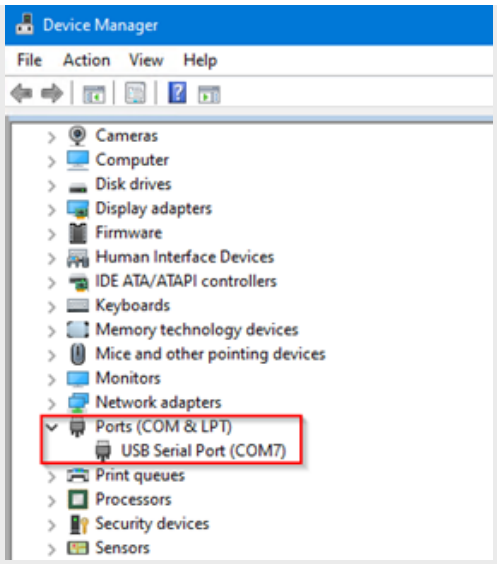

Fig. 9: Check COM port in Device Manager

In the Combivis 5 configuration window, go to HSP5 > Com Port and select the COM port used. Select OK. Then, go to File > Quit.

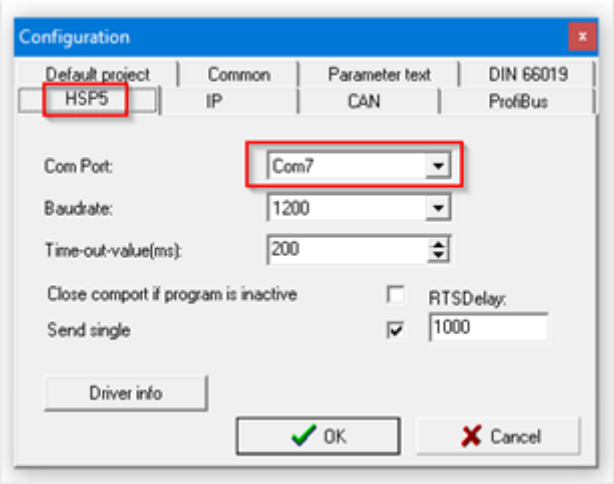

Fig. 10: Select COM port used

Reopen Combivis 5 and follow the same prompts. This time, the KEB drive should be found and Combivis will start reading parameter groups.

You can now view and edit parameters.

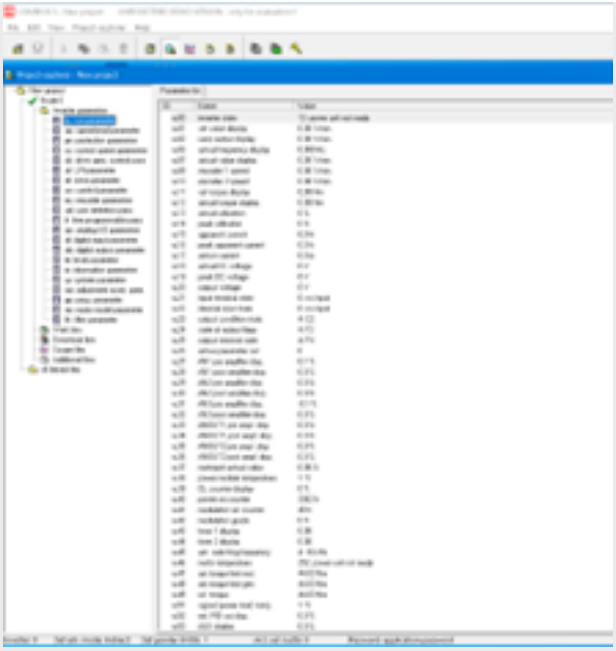

Fig. 11: Drive Parameters

5. Drive Parameter Upload/Backup

To do a parameter backup to save parameters from the drive to your PC, go to File > Parameter Saving > Select Node > Select either Joined Parameters or Joined Sets. The backup is saved as a .dw5 file and Combivis will prompt you to save it locally to your PC.

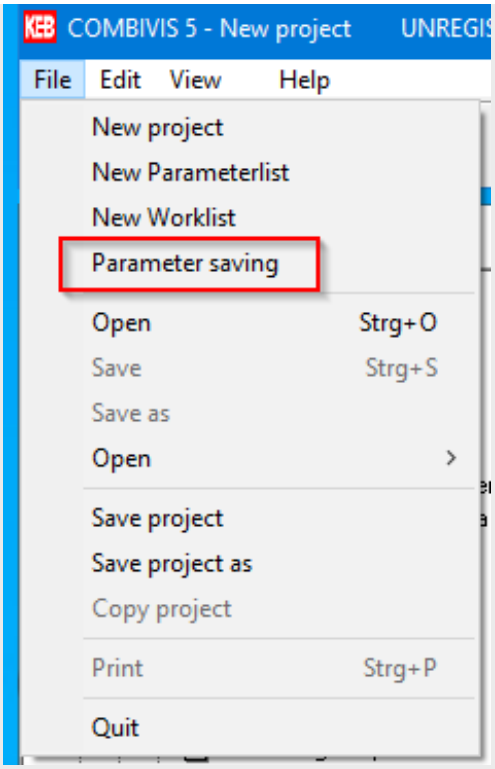

Fig. 12: Parameter Upload

6. Drive Parameter Download

To download a parameter file to from your PC to the drive, go to File > Open > Select the parameter file. Once open, select the “down arrow” button.

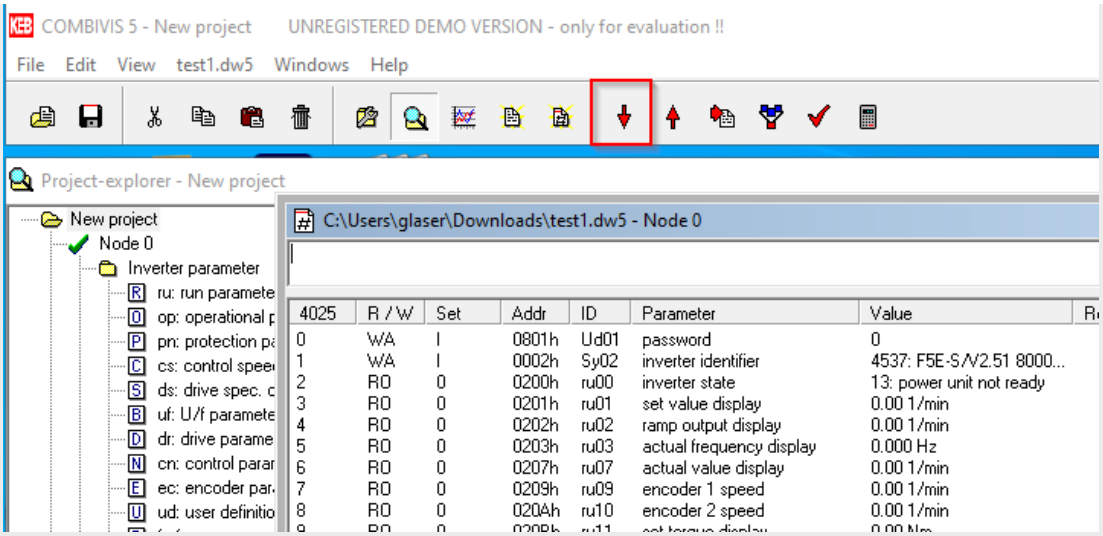

Fig. 13: Parameter Download

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