



Baby-LIN-II

Getting started guide V1.1

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2 Glossary

CAN	Controller Area Network
CD	Compact Disk
DBC	Database CAN
DLL	Dynamic Link Library. It can be used to execute the DLL functions in custom applications.
EOL	End of line
LDF	LIN description file
LIN	Local Interconnect Network
LINWorks	Application software suite to configure the Baby-LIN devices
PC	Personal Computer
SDF	Session Description File
SO	Shared Object. This is the Linux variant of a Windows-DLL. It can be used to execute the SO functions in custom applications.
USB	Universal Serial Bus
VDC	Voltage Direct Current. This is the unit of DC voltage values.

3 Introduction

This getting started guide will show you how to setup the Baby-LIN-II to communicate with or monitor the LIN-Bus. Simply follow the next steps.



Advice

This guide is made for new Baby-LIN-II users. If you already have experience with Baby-LIN products or you are an advanced LIN-Bus user then this guide probably is not suited for you.



Advice

This guide assumes you are using a Microsoft Windows operating system. If you use a Linux operating system please contact us to receive software for your distribution: "[Support information](#)"

4 Installation

Before you can start using the Baby-LIN-II you have to install several components of the LINWorks software. If you have not already downloaded the LINWorks software, please download it now from our customer portal.



Advice

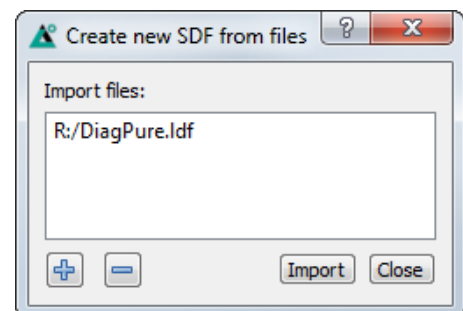
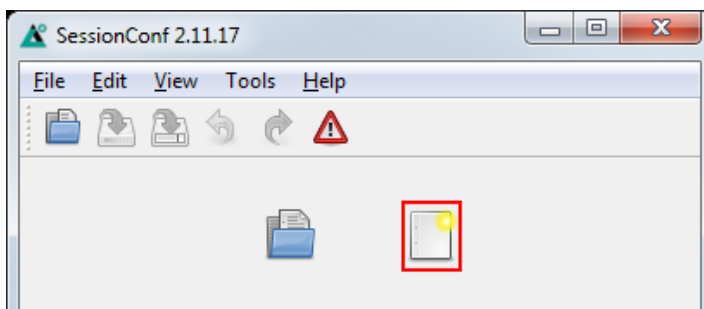
Check out chapter: "[Downloads](#)"

The following components are required for this getting started guide:

- Baby-LIN driver
- Session Configurator
- Simple Menu

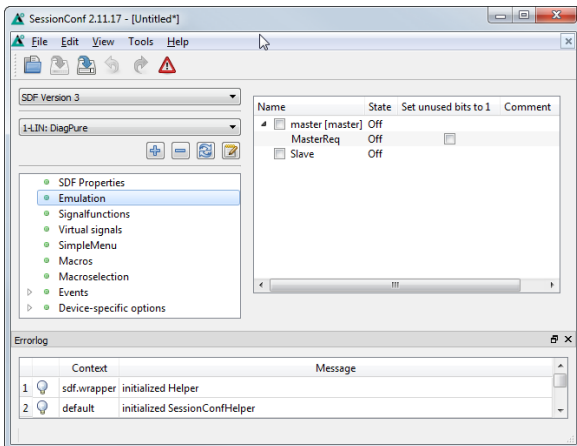
5 Create a SDF

First we have to create a SDF. This file contains all informations required by the Baby-LIN-II to simulate nodes on the LIN-Bus or monitor it. Therefor please start the Session Configurator and click on the right icon to create a new SDF file. Add your LDF or DBC and click on import. To import DBC files you additionally have to select the nodes, frames and signals you want to import.

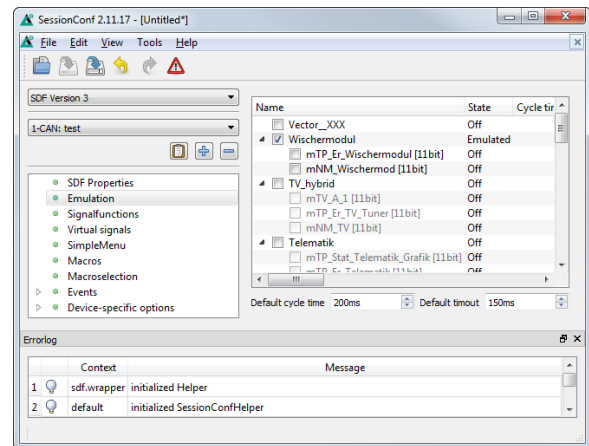


Select Emulation in the navigation menu on the left. Here you can select which nodes you want to be simulated by the Baby-LIN-II. If you only want to monitor the LIN-Bus, select nothing.

LIN-Bus simulation



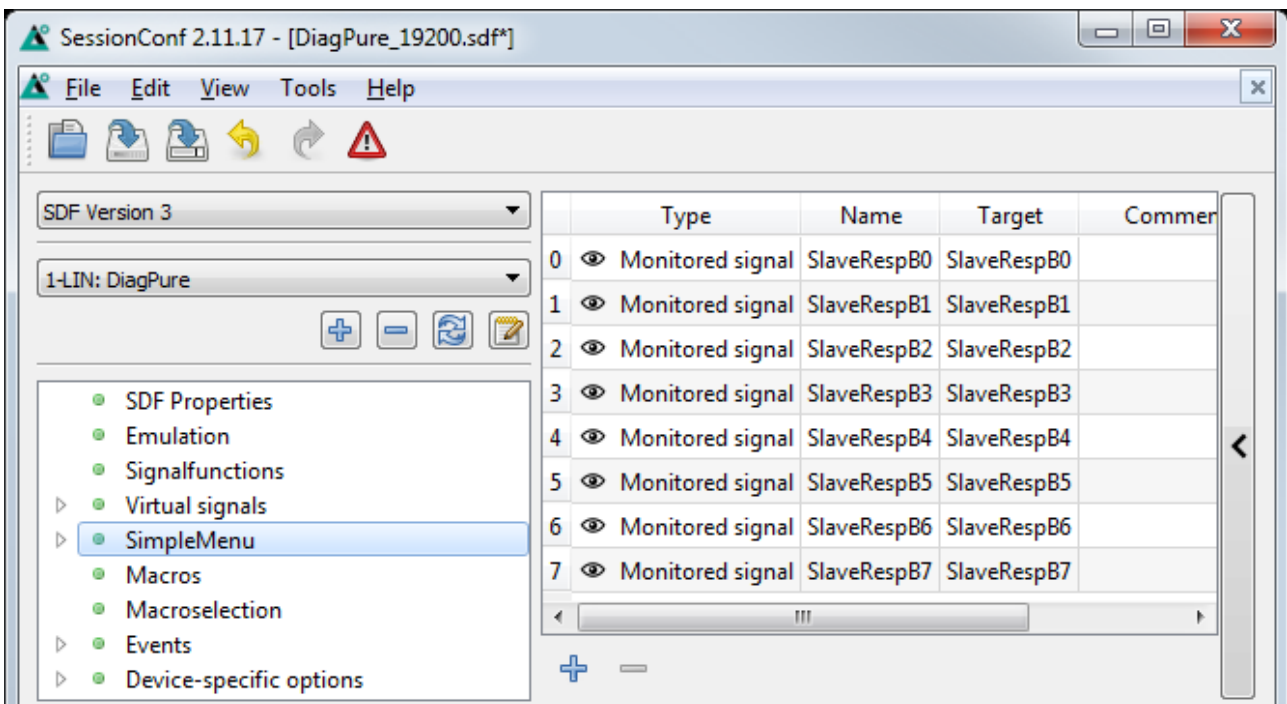
CAN-Bus simulation



Attention

For CAN-Bus simulations you have to select not only the nodes you want to be simulated by the Baby-LIN-II, but also the frames that should be transmitted on the bus by the node. If a node is selected, but no frame, you will not see any data on the bus from this node.

Select SimpleMenu in the navigation menu on the left. Here you can add signals you want to monitor.



Advice

There are other ways to monitor frames and signals, but this is a good and configurable starting point.

6 Connections

Please establish the following connections:

- Connect the Baby-LIN-II to your LIN-Bus.



Danger

Please keep the LIN-Bus voltage within the following range: 8-26 VDC.
Otherwise the Baby-LIN-II may get damaged.



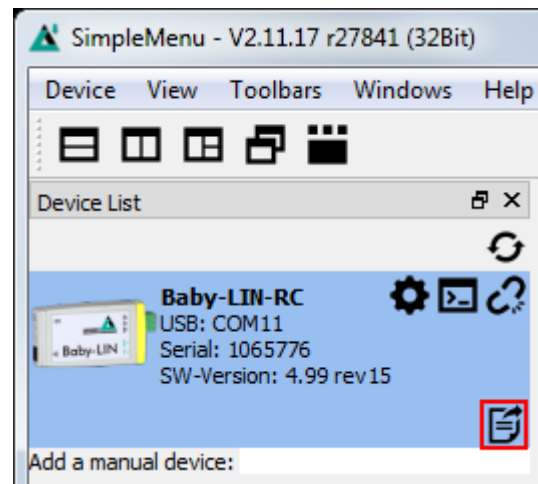
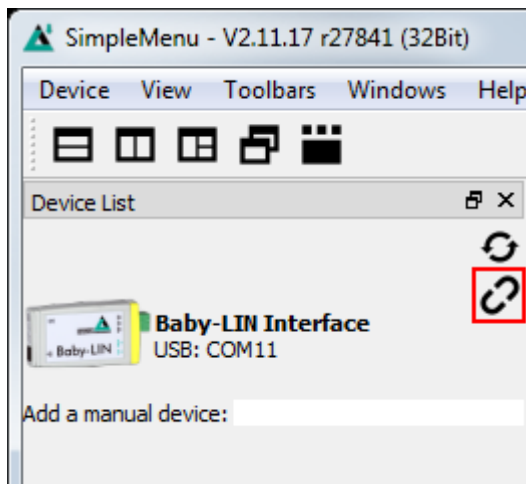
Advice

Make sure all other nodes are connected and running properly.

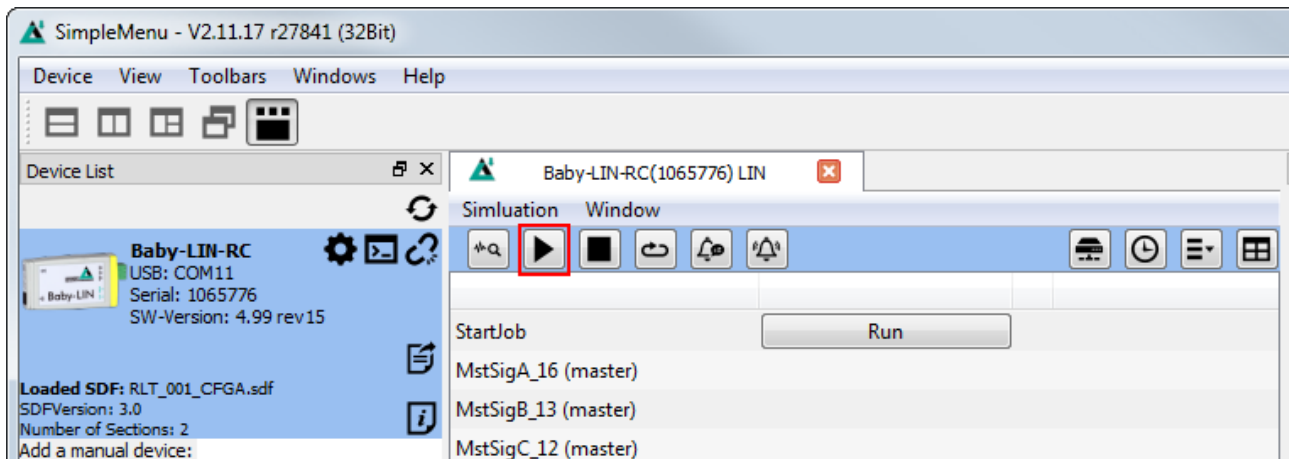
- Connect the Baby-LIN-II via the provided USB cable to a free USB port of your PC.

7 Start the bus communication

Start the Simple Menu. You should be able to find your Baby-LIN-II in the device list on the left. Click the connect button and then load the SDF you created earlier.



Now you can see the variables you added to monitor. To start the simulation/monitoring click on the start button.



Now you will see the changes of these signals.



Advice

The Baby-LIN-II features a lot more features and possibilities and can be used for a wide selection of applications. Keep on reading this manual to learn more about the Baby-LIN-II.



Advice

The Baby-LIN-II is not the only LIN-Bus device from Lipowsky Industrie-Elektronik GmbH. Check out our other products at <http://www.lipowsky.com/lipo/products/lin-and-can-systems/>

8 Updates

8.1 Update philosophy

The functionality and features of the Baby-LIN-II are defined by the installed firmware as well as the used versions of the LINWorks and Baby-LIN-DII.

As we are permanently working on product improvements, the software and firmware are updated periodically. These updates make new features available and solve problems, which have been discovered by our internal tests or have been reported by customers with earlier versions.

All the firmware updates are done in a way, that the updated Baby-LIN-II will continue to interwork with an already installed, older LINWorks installation. So updating the Baby-LIN firmware does not mean, that you necessarily have to update your LINWorks installation as well.

Therefor it is highly recommended to always update your Baby-LIN-II to the latest available firmware version.

We also recommend to also update your LINWorks software and Baby-LIN-DII, if new updates get available. Since new versions of the Session Configurator may introduce new features to the SDF format, it is possible that older firmware, Simple Menu or Baby-LIN-DII versions are not compatible. Therefor you should also update them.

If you update your LinWorks it is highly recommended updating the firmware of your Baby-LIN-II to the latest available firmware version as well as distributed the used versions of the Baby-LIN-DII.

So the sole reason to stay with an older LINWorks version should be, that you use a Baby-LIN-II with outdated firmware version, which you can't upgrade for whatever reason.

It is highly recommended updating the Baby-LIN driver to the latest version.

8.2 Downloads

The latest versions of our software, firmware and documents are available in our client portal: portal.lipowsky.de. There you can find downloads like:

- Software, especially the LINWorks suite.
- Device firmware for the Baby-LIN-II. The BLProg update tool is included in the archive.
- USB drivers for the Baby-LIN-II.
- Manuals and datasheets.
- Application notes and examples how to create custom applications.



Advice

The LINWorks CD archive contains not only the LINWorks software but also the USB driver, manuals, datasheets, application notes and examples. Only the device firmware packages are not included.

Before you can download anything you have to register yourself in our customer portal. Here you also have to select which product you are using. After your account has been activated by us you will receive an email. This can take up to some hours.



Attention

After you received the activation email you will be able to login. In the login screen you should also select your preferred language. After the login you will be able to download all relevant files.

The image shows two screenshots of the customer portal. The left screenshot is the registration form, which includes fields for company information (Company, Street, ZIP, City, Phone), contact details (Name, Surname), and a 'Groups' dropdown menu. It also features a language selection dropdown (English) and a 'Register' button. The right screenshot is the login form, titled 'Welcome to the Customerportal of Lipowsky', with fields for Username and Password, a language selection dropdown (English), and a 'Login' button. A link for 'not yet registered? register here...' is also visible.

After the registration you will also be automatically notified via email when new versions are available.



Advice

If you have forgotten your password, please send us your Email address, that you used for the registration. Then we can reset your password so you can login again.

8.3 Installation

The LinWorks suite is delivered with a handy setup application. If you already have installed an older version you can simply install the newer versions. The setup application will take care of overwriting the required files. Simply follow these steps:

- Start the "Setup.exe".
- Select the components you want to install.
- Follow the instructions.



Attention

Please stop all running LinWorks applications and disconnect all Baby-LIN devices before starting the setup.



Attention

If you have used version of the Session Configurator and Simple Menu with version V1.x.x, the new version will be installed parallel to the old ones. Therefore you have to use the new shortcuts to start the new versions.

8.4 Check versions

If you want to check the current version of the Baby-LIN-II firmware or a LINWorks component the following table shows you how it is done:

Component	How to check the version
Baby-LIN-II firmware	Start the Simple Menu and connect to the Baby-LIN-II. Now the firmware version is visible in the device list.
LINWorks <ul style="list-style-type: none"> • Simple Menu • Session Configurator • LDFEdit 	Select the menu option "Help/About". The info dialog will show the software version.
Baby-LIN-DII	Call <code>BLC_getVersionString()</code> . The version is returned as string.
Baby-LIN-DII .NET Wrapper	Call <code>GetWrapperVersion()</code> . The version is returned as string.



Advice

If you need support please always tell us the firmware and software versions you are using.

9 Support information

In case of any questions you can get technical support by email or phone. We can use TeamViewer to give you direct support and help on your own PC. This way we are able to sort out problems fast and direct. We have sample code and application notes available, which will help you to make your job.

Lipowsky Industrie-Elektronik GmbH realized many successful LIN and CAN related projects and therefore we can draw upon many years of experience in these fields. We also provide turn key solutions for specific applications like EOL (End of Line) testers or programming stations.

Lipowsky Industrie-Elektronik GmbH designs, produces and applies the Baby-LIN products, so you can always expect qualified and fast support.

Contact information			
Website:	www.lipowsky.com	Email:	info@lipowsky.de
Customer portal:	portal.lipowsky.de	Telephone:	+49 (0) 6151 / 93591 - 0
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