



## **Baby-LIN-RC-II**

*Key board configuration V1.1*

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# 1 Overview

The Baby-LIN-RC-II has additional target specific options through its 6 key keyboard. The key assignment of the Baby-LIN-RC-II can be extended with these options up to 14 key combinations. This application note gives you instructions on how to set the keyboard configurations via SimpleMenu and via SDF.

## 1.1 Shift key configuration

The six keys of the keypad can be used to trigger user-defined actions. To increase the number of input triggers it is possible to use one or two of the keys as shift keys.

Possible values are:

Value	Description	Possible key combinations
No SHIFT Key	No key will be used as shift key. All six keys are used as normal keys. FirmwarePackage-Baby-LIN-Devices.zip	F1, F2, F3, F4, F5, F6
F5 (ENTER)	The F5 key will be used as shift key. 10 (2 x 5) input triggers are available.	F1      F5 + F1 F2      F5 + F2 F3      F5 + F3 F4      F5 + F4 F6      F5 + F6
F6 (START/STOP)	The F6 key will be used as shift key. 10 (2 x 5) input triggers are available.	F1      F6 + F1 F2      F6 + F2 F3      F6 + F3 F4      F6 + F4 F6      F6 + F5
F5, F6	The F5 and F6 keys will be used as shift keys. 14 (3 x 4 + 2) input triggers are available.	F1      F5 + F1 / F6 + F1 F2      F5 + F2 / F6 + F2 F3      F5 + F3 / F6 + F3 F4      F5 + F4 / F6 + F4 F5 + F6 / F6 + F5

If one or two shift keys are used the shift keys itself do not trigger any event. The combination of the shift key and a non shift key is required:

Event	Description
Trigger a rising edge	1 Press the shift key 2 Press the non shift key  The pressing of the second key while the shift key is pressed triggers the rising edge. If the shift key is pressed after the non shift key, the shift key has no effect.
Trigger a falling edge	• Release the non shift key  The falling edge is triggered by releasing the non shift key. It does not matter if the shift key is released before or after that.

## 2 Target specific options

The Baby-LIN-Device has an persistent memory to save configuration settings. This target configuration consists out of target-specific options. There are two possibilities to set them:

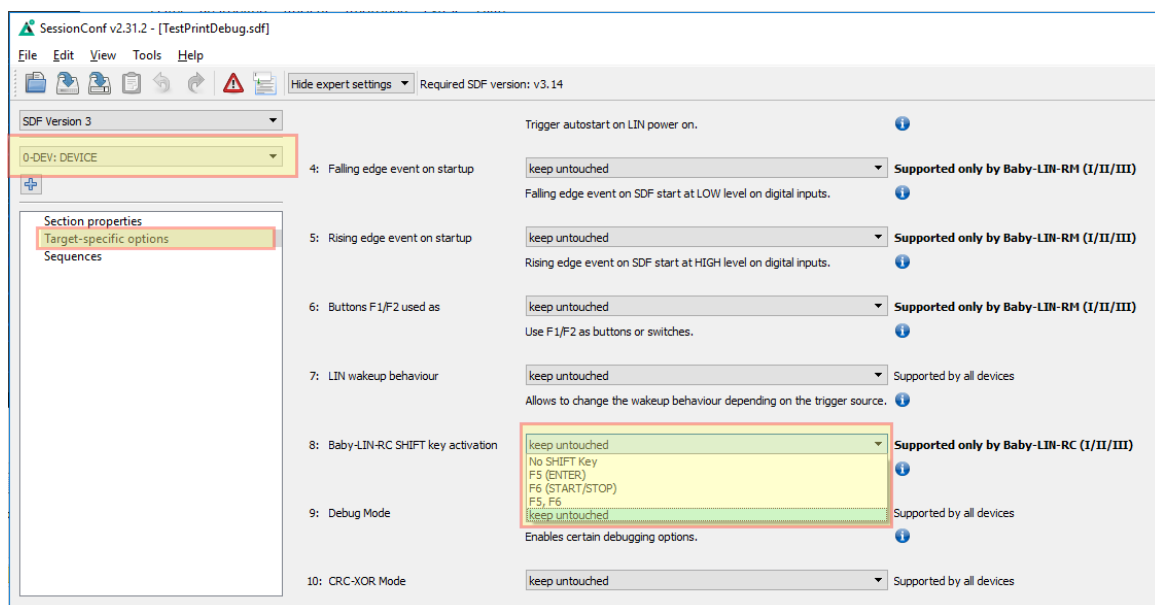
- Directly change the target configuration within the Baby-LIN-RC-II using the SimpleMenu.
- Set the target-specific options in an SDF using the SessionConf. If the SDF is loaded into the Baby-LIN-RC-II the target-specific options of the SDF can overwrite the device configuration.

### 2.1 Target specific Options via SDF

If a Baby-LIN-Device requires certain target-specific options or you want to set the target configuration of a lot of Baby-LINs it is possible to set them in a SDF v3. Each time that SDF is downloaded to a device the target-specific options of the SDF are used and overwrite the target configuration of the device. Each option can also be set to not overwrite the device's option.

- Start the SessionConf and load a SDF v3 or create a new one.
- Select the device section.
- Expand the "Target-specific options" element within the tree on the left.

The various settings can be made under point 8: "Baby-LIN-RC-SHIFT key activation".

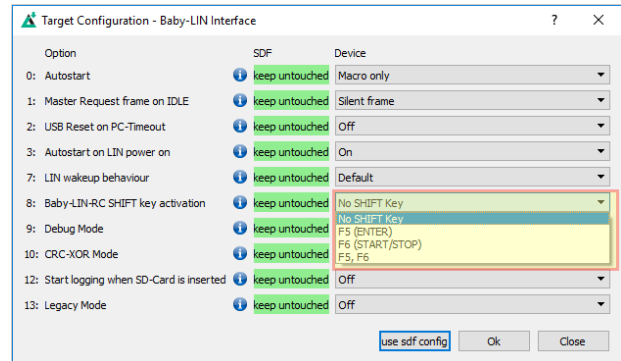
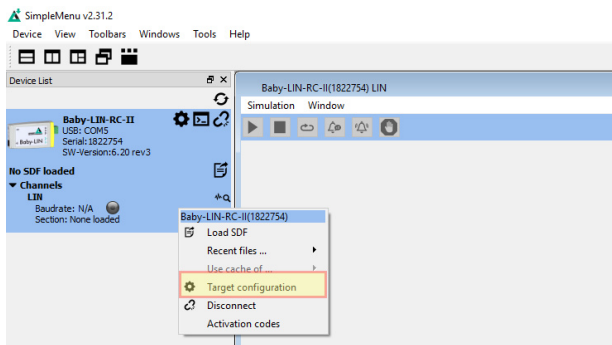


The target-specific options are divided into a global area with options that are available on each Baby-LIN device and options that are only available on certain devices. Each option additionally has the setting "keep untouched". This setting is the default value and ensures that the corresponding value in the Baby-LIN device is not changed. Therefore it is possible to set only single target-specific options.

### 2.2 Target specific Options via SimpleMenu

You can change the target configuration of the Baby-LIN-RC-II using the SimpleMenu:

- Connect your Baby-LIN-RC-II with a PC.
- Start the SimpleMenu and connect to your Baby-LIN-RC-II.
- Right click on the Baby-LIN-RC-II in the device list and select "Target configuration". A dialog will open and show you the current configuration of the Baby-LIN-RC-II in the "Device" column. Here you can change each target-specific option.

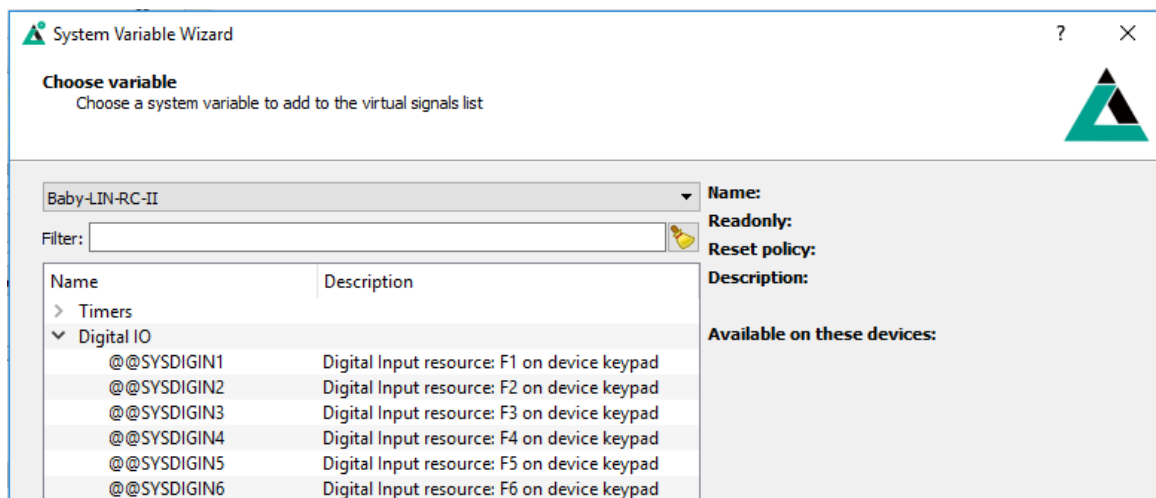


## 2.3 Access to keys via system signals

The current status of the buttons is stored in the SYSDIGIN system signal. When the button is not pressed, the signal is set to 0 and when the button is pressed, the signal is set to 1. With this connection, the status of the individual buttons of the Baby-LIN-RC-II can be accessed independently of key events.

The system signals can be easily added to SesseionConf via the System Signal Wizard. A short description of all system signals can also be found there.

The connection between the button and the system signal is as follows:



The system signal can then be used in macros to implement the functional logic of the application.

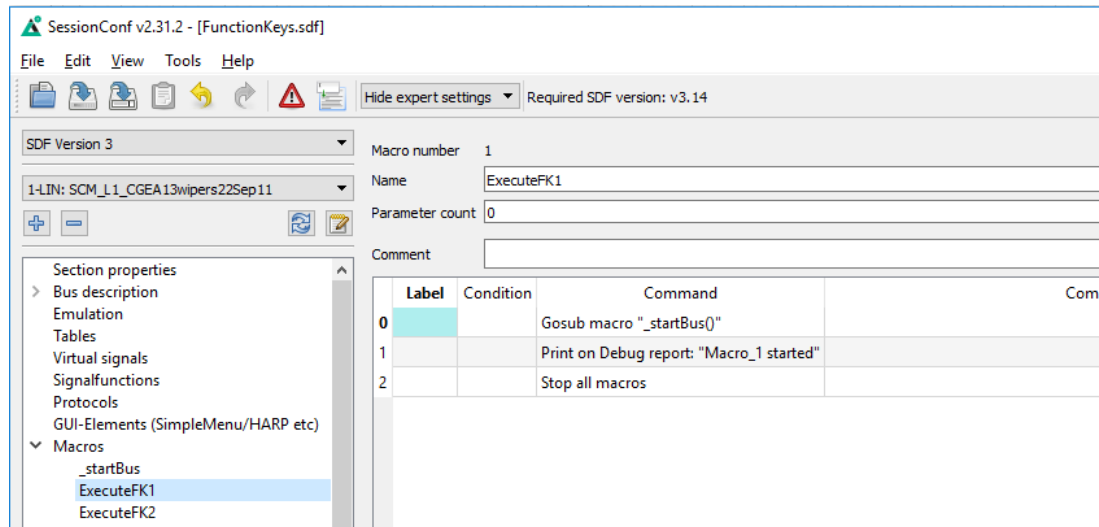
## 3 Example SDF

### 3.1 Overview

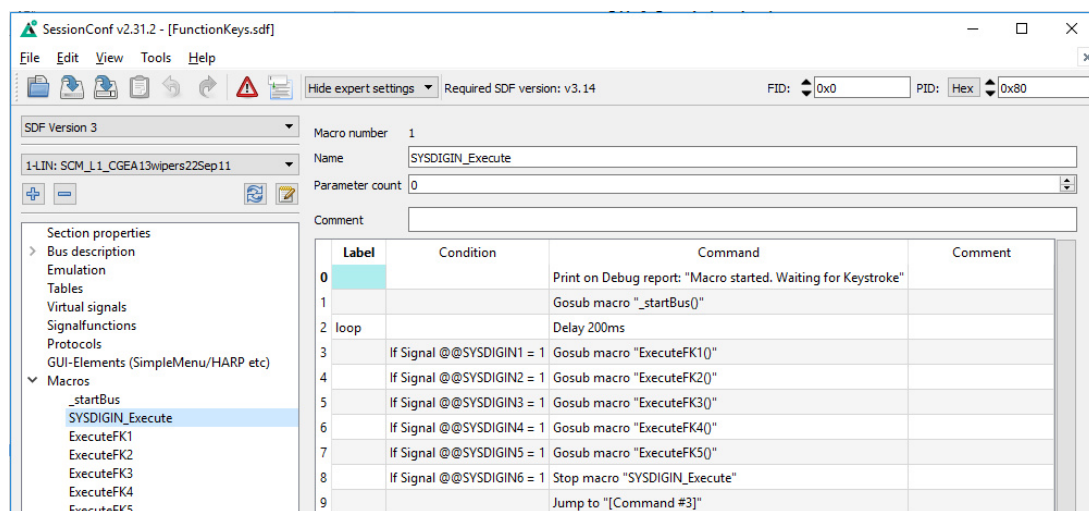
The best way to implement the target configurations in the long term is via the SDF. At the same time, the key functions of the Baby-LIN-RC-II can be linked with, for example, the start and stop of macros. These and other possibilities are presented in the following SDF template.

### 3.2 Macros

This simple SDF has 6 different macros whose start is triggered by the respective keystroke on the Baby-LIN-RC-II. With the command "print on Debug report" it is visible in the Report Monitor in the SimpleMenu that the macros have been started. Further functions can be implemented in the macros.

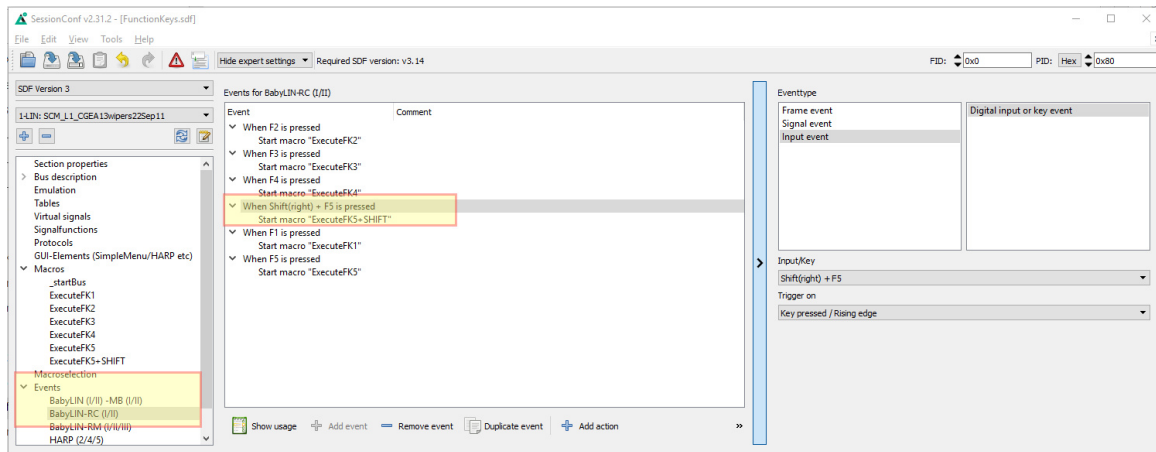


In addition to the macros that are called by key event, there is the "SYSDIGIN\_Execute" macro. This shows an example of the call of the individual submacros via the state of the SYSDIGIN system signals. The status of the individual signals is queried in a loop. When the key is pressed, the condition is fulfilled and the submacro is executed.



### 3.3 Events

Under the menu item Events, the specific events can be set for the respective devices. For the Baby-LIN-RC-II, the keystroke is linked to the start of a macro. With the previously set "Target specific option" for the "Shift Key configuration", we now have the possibility to define exactly this key combination as an event.



### 3.4 Example SDF

You can download the example SDF "FunctionKeys.sdf" in the download area on our website under the following link.

Link: <https://www.lipowsky.de/downloads/>

## 4 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.

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