

# Last Minute Notes for RapidPro SC-EGOS 2/1 Module

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## Valid for

SC-EGOS 2/1 module base board revision, as of DS1634-07, in combination with:

- ConfigurationDesk 3.0.1 (on dSPACE Release 6.4)

- or -

- ConfigurationDesk 3.0.2 (on dSPACE Release 6.5)

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## Installing add-on software to work with the SC-EGOS 2/1 module

Download the add-on software via [http://www.dspace.com/goto?sc\\_egos\\_lsu\\_adv](http://www.dspace.com/goto?sc_egos_lsu_adv), and install it on your host PC.

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## Updating the RapidPro system

Update your RapidPro system as described in the *How to Update RapidPro Firmware* in the *RapidPro System Hardware Installation Guide*. If your RapidPro system already provides the latest firmware for all components, No update necessary is displayed.



### CAUTION

**The control outputs for the pump current are switched on when the PIC firmware of the SC-EGOS 2/1 module is updated. This can damage the connected lambda probes.**

To avoid the risk of material damage: Disconnect the lambda probes from the RapidPro system before updating the firmware.



Via ConfigurationDesk, you can find out the module's PIC firmware version on the module's property page.

### Setting the pump reference current

It is recommended to set the pump reference current according to the technical specifications of the lambda probe being used.

For further information on the pump reference current, refer to *Configuration via ConfigurationDesk* (SC-EGOS 2/1 module) in the *RapidPro System Installation and Configuration Reference*.

### Renaming of the EGOS\_UR\_CTRL pin

The EGOS\_UR\_CTRL pin is renamed in the pinout information file to EGOS\_CTRL to adapt the pin name to the extended functionality in conjunction with LSU ADV lambda probes (see below). The pin's functionality is as it was in conjunction with the LSU4.2 and LSU4.9 lambda probes.

### Switching the pump current of LSU ADV lambda probes



#### CAUTION

**If an LSU ADV lambda probe is below its operating temperature, switching its pump current can damage it.** For details on the operating temperature, refer to the manufacturer's technical specifications).

Make sure that the connected lambda probe has reached its operating temperature before switching the pump current.

**The switching of the pump current depends on the RapidPro use scenario:**

#### ■ Installed in a stack with UCB – intelligent I/O subsystem use scenario

If the module is installed in a Control Unit or a stack with UCB, you must switch the pump current via the EGOS\_CTRL signal, either with an RPCU\_BIT\_OUT\_TPU block or RPCU\_BIT\_OUT block.

- Value 0 to the block's input -> pump current: OFF
- Value 1 to the block's input -> pump current: ON

### ■ Installed in a single SC Unit – signal conditioning and power stage use scenario

You can directly switch the pump current on its rear I/O connector (EGOS\_CTRL\_IN in the pinout information file), if the module is installed in a single SC Unit.

- Apply low-level signal to EGOS\_CTRL\_IN -> pump current: OFF
- Apply high-level signal to EGOS\_CTRL\_IN -> pump current: ON

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#### Additional information on using LSU ADV lambda probes

dSPACE provides an application note and a Simulink demo model on controlling the lambda sensor correctly. When using LSU ADV lambda probes, you have to pay particular attention to the start-up behavior. The demo model therefore includes a ready-to-use heater controller. Starting from this demo model will prevent any damage to your sensor.

Download the application note and the Simulink demo model via [www.dspace.com/goto?sc\\_egos\\_appnote](http://www.dspace.com/goto?sc_egos_appnote).

## How to Contact dSPACE

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