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# **MSPFET**

08/2024

# MSPFET - Receiver



There are various options for programming finished firmware on the microcontroller. One of these options is to use the MSPFET programme. MSPFET is a programme that is available free of charge. It supports a variety of different microcontrollers, but tends to focus on older microcontroller series. The MSP430F2274 (HF-Controller / Hauptcontroller Compact-M2 R7/R13) is relevant for us here.

#### Setup

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#### Adapter

Selected adapter

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Before programming with MSPFET, it should be ensured that the correct settings have been made in the programme. To do this, the properties menu can be opened via the "**SETUP**" button and all the necessary settings can be adopted as shown in the image above. The correct selection of the COM port is crucial for the function.

If a synchronisation problem occurs, it may help to set the 38400 baud setting to False.

#### Programming HF firmware (MSP430F2274)

Programming adapter: Universal programming adapter Compact M (2.250.7506) ! For HF part, the RST Invert flag in the settings must be set to True!

- 1. select the appropriate firmware (\*.txt) with "OPEN" (yellow folder symbol).
- 2. ensure that the toggle switches of the programming adapter "BSL" are set to ON and "SEL" to OFF
- 3. connect the programming adapter to the receiver
- 4. connect the receiver to a suitable power supply (make sure the operating voltage is correct!)
- 5. after a few seconds, set the toggle switch of the programming adapter "BSL" to OFF and "SEL" to ON
- 6. use the "AUTO" button to load the firmware onto the receiver
- 7. disconnect the receiver from the power supply
- 8. after successful programming (see log below), unplug the programming adapter

As soon as the firmware has been successfully programmed, the corresponding message appears in the log area:

15:16:20 E 15:16:20 V 15:16:28 P 15:16:36 V	rasing flash memoryOK 'erifying device memory erasureOK 'rogramming the device memoryOK 'erifying device memory programmingOK	
BSL(COM3)	ОК	

### Programming a receiver firmware (Compact-M2 R7/R13 - MSP430F2274)

Programming adapter: NBB USB-Serial Adapter (2.250.7514) + Compact-M2 R7 Adapter ! For receivers, the RST Invert flag must not be set to True in the settings!

- 1. select the appropriate firmware (\*.txt) with "OPEN" (yellow folder symbol).
- 2. connect the programming adapter to the receiver
- 3. connect the receiver to the appropriate power supply (make sure the operating voltage is correct!)
- 4. use the "AUTO" button to load the firmware onto the receiver
- 5. disconnect the receiver from the power supply
- 6. after successful programming (see log below), unplug the programming adapter

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As soon as the firmware has been successfully programmed, the corresponding message appears in the log area:

15:16:20 Erasing flash m	emoryOK	
15:16:20 Verifying device 15:16:28 Programming th	e memory erasureUK pe device memoryDK	
15:16:36 Verifying device		

! Care must be taken to ensure that the microcontroller and software are compatible with each other, otherwise the hardware may be destroyed!

! When programming with MSPFET, the complete microcontroller is erased before the actual programming. Parameters such as the calibration values must be saved beforehand!