

Product contents

- EIMod Famo PCB and mounting
- chain motor connectors
- proportional receiver cable set for a 4 to 6 channel receiver
- five cables for light sources, a loudspeaker and an optional winding motor
- volume control knob with cable
- microSD-card with sample sets
- EIMod configurator with suitable USB cable for a Windows® or Apple® computer

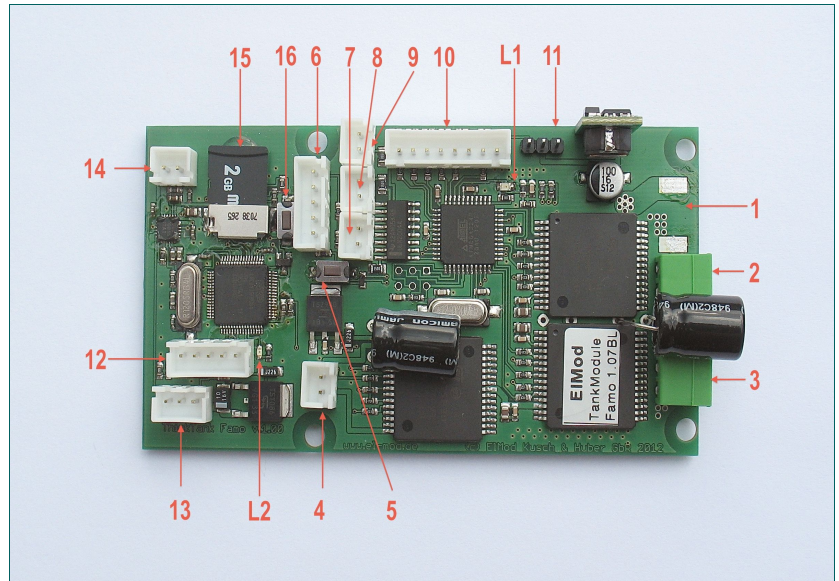
The EIMod Famo board consists of two independent parts: the central unit is competent for the receiver signals, light and motor driving. The sound unit which generates all sounds. Both parts may be configured separately with the included EIMod configurator.

Overview (central unit)

- 1 power cables
- 2 connector left chain motor
- 3 connector right chain motor
- 4 connector winder motor
- 5 setup/test button
- 6 connector for EIMod configurator
- 7 connector notek (camo) light
- 8 connector rear light/brake light
- 9 connector front light
- 10 connector receiver cable
- 11 connector steering servo
- L1 status LED

Overview (sound unit)

- 12 connector for EIMod configurator
- 13 connector volume control knob
- 14 connector loudspeaker
- 15 microSD card
- 16 setup/test button
- L2 status LED



Assembly

HINT: the function of all connectors is printed on the back side of the PCB!

The board may be installed inside the framework below the load bed. The polystyrene plate has to be attached with the included M3 x 12 mm screws and the 4 mm polystyrene blocks directly onto the transverse suspension spars. Two spacers (polyamide washers for one mounting hole each) have to be placed between the polystyrene plate and the PCB. The remaining four M3 screws and washers fix the PCB with the polystyrene plate. Split the washers and nuts.

If installing in a different location, make sure that there is no contact (short circuit) between the PCB and metal parts of the vehicle!

Power supply

Solder the loose ends of the power supply cable to a battery connector that fits to your battery type. Use the included shrinking tube to insulate the soldered wires. Only the following battery types may be used:

- 6-cells NiMh/NiCd (7.2 V)
- 7-cells NiMh/NiCd (8.4 V)
- 2-cells LiPo (7.4 V)
- If the battery voltage exceeds 10V, the electronics shuts down automatically!

Chain motors

Use the included plugs to connect the chain motors to the board. Keep the wires as short as possible.

To check the correct wiring of the motors perform the following procedure:

- Jack up the vehicle, so that the chains can move freely.
- Attach a fully charged battery to the power supply connector and switch on the electronics.
- Wait 3 - 4 seconds and press the pushbutton.
- The chains start to move and change the running direction every 4 seconds. Release the button when both chains move forward and the right chain runs faster than the left one.
- Go ahead with the installation when the motors run in described manner.

IMPORTANT! The motors must be suppressed against noise or interference!

The maximum current provided by the ESCs is 20Amps per motor (short-period), 10Amps per motor sustaining.

Steering servo

Attach a proper steering servo to the connector 11. The ground wire shows towards the right edge of the board. It must be ensured, that the steering servo doesn't exceed the maximum current of 1.5Amps.

Winder motor

IMPORTANT! The motors must be suppressed against noise or interference!

Solder the provided 2-wire cable to your winder motor and attach the cable to the connector 4. The motor current may not exceed 10Amps.

Light

All light connectors are equipped with a dropping resistor. It protects the light sources from overcurrent (20-50mA) and the board from shortcuts. LEDs may be connected directly to the output. All light outputs are able to drive one or two LEDs. The brightness of each light source may be configured individually with the EIMod configurator.

- Front light: connect one or two white LEDs parallelly to the connector 9.
- Combined rear light/brake light: attach one or two red LED serially to the connector 8.
- Notek: use the connector 7 for the notek blackout light.

Status LED (central unit)

The status LED L1 shows the condition of the central unit

on	Tank Module is in operational state
Single short out	Stick movement detected
Fast blinking	No valid signal from receiver*
Slow blinking	Faulty communication with the sound unit
Double blinking	Faulty CPU power supply**
Single triple blinking	Bootloader activated. The module is ready for firmware update.

*no connection to the sender is established or the transmission path between sender and receiver is disturbed. Please check the wiring and the proper function of the RC radio and receiver. If necessary check the operability of the RC equipment with a servo.

**undervoltage on the CPU detected. Switch off the power for 10 seconds. If the error remains, assure that the EIMod configurator USB dongle is disconnected and retry.

RC receiver

The Famo module may be used with four, five or six channel receiver. The currently active mode of operation is recognized automatically. Please consider that the radio must be setup correctly (all mixers must be deactivated, the servo deflection must be 100% and the trimming has to be centered)

If the channels five and/or six are used, they must be equipped either with a slider, knob or a 3-way-switch (up-off-down). Otherwise only four-channel operation is possible (no user sounds are available). For proper function the wires of unused channels may not be connected to the receiver.

The Famo module provides the power supply for the receiver (BEC, stabilized 5V DC) via the red/black wires which are part of the included proportional cable set.

The receiver cable has to be attached to the receiver connector on the Famo module. The wire colors are:

Channel	Control	Function
1	Right stick	Acceleration
2		Steering
3	Left stick	Light and ignition
4		Winder motor (optional)

Depending on the receiver it may be necessary to adjust the channel order or swap its movement direction.

Check the manual of your RC gear for details.

Special functions and light control (Channels 3 and 4)

Left stick (channel 3+4)	
↑	Motor ignition
↓	Notek (camo light) on/off (half deflection)
↕	Front light on/off (full deflection)
↔	Optional wider motor

User defined sounds

Up to 8 user sounds may be defined and up to four user sounds may be controlled by each channel.

Channel	Control	Function
5	3-way switch	↑ User sound 1 (hold for 3 sec. and release for user sound 5)
		↓ User sound 2 (hold for 3 sec. and release for user sound 6)
6	3-way switch	↑ User sound 3 (hold for 3 sec. and release for user sound 7)
		↓ User sound 4 (hold for 3 sec. and release for user sound 8)

The playback may be stopped by moving the switch in the opposite direction.

Undervoltage protection

The TankModule features an under voltage protection to protect the batteries from deep discharge. On delivery the threshold voltage is set to 6 volts for 7.2V NiMH/NiCd batteries. If the voltage drops below 6 volts, the vehicle stops and the attached lights start blinking. In this case replace or recharge the battery.

Overvoltage protection

If a voltage of 10V or higher is detected, the electronics shut down and the attached lights start blinking.

Sound unit

- Connect the volume control knob to the connector 13.
- Solder a suitable 8 Ohms speaker to the included speaker cable. Plug the cable to the connector 14. The polarity (+/-) is alike.

Status LED (sound unit)

The status LED L2 shows the condition of the sound unit

on	Blaster is operational
blinking	Blaster cannot establish connection to the central unit
off	SD card missing or faulty
flickering	a sound is being played
blinks exactly 3 times	Bootloader active and the sound unit is ready for firmware update

First run

- Make sure all cables have been installed as described above.
- Make sure that the SD card is well fixed.
- Install a full charged battery and switch on the vehicle.
- The status LEDs L1 and L2 must be on. L1 may blink for a couple of seconds until the central unit is synced with the receiver.
- For a function test, press the pushbutton 16. A sound will be played every few seconds. If you cannot hear anything, adjust the volume with the volume control knob.
- use the included EIMod Configurator with your Windows® or Apple® computer to fine tune the module's settings.

Motor ignition

If the power is switched on, the main engine will be off by default. Move and release the left stick (channel 3) to the upper most position to ignite the motor. Move the stick up again to switch the motor off.

Setting up a sample set

The provided microSD card includes several ready-to-use sample sets. For activation of a particular sample set, insert the card in a suitable card reader of your personal computer and start the program "MasterBlaster.exe" which is located in the root directory of the SD card.

The microSD card includes several third-party sample sets. We are not liable for the quality or the content of these sample sets!

Configuration and update of the central unit

The EIMod configurator allows a very detailed configuration and setup of the central unit of the Famo module. To run the configuration download and install the EIMod configurator software from our web site, attach the USB cable to the connector 6 and power up the module.

If a new firmware version for the Famo module is released, you will be able to upload it via the EIMod configurator. To activate the update process download and install the current version of the EIMod configurator Software, attach the USB cable to the connector 6, press and hold the pushbutton 5 and switch on the power. The LED L1 blinks exactly 3 times. Follow the directions shown by the EIMod configurator software.

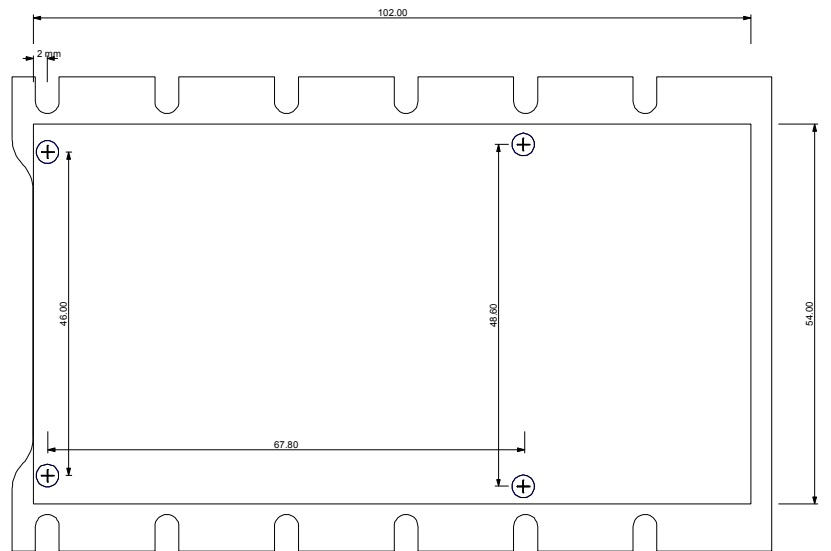
Configuration and update of the sound unit

The EIMod configurator allows a very detailed configuration and setup of the sound unit. To run the configuration download and install the EIMod configurator Software from our web site, attach the USB cable to the connector 12 and power up the module.

If a new firmware version for the Famo module is released, you will be able to upload it via the EIMod configurator. To activate the update process download and install the current version of the EIMod configurator Software, attach the USB cable to the connector 12, press and hold the pushbutton 16 and switch on the power. The LED L2 blinks exactly 3 times. Follow the directions shown by the EIMod configurator software.

Dimensions

Dimensions of the PCB and the polystyrene mounting plate



Nicht geeignet für Kinder unter 14 Jahren.

Ne convient pas pour des enfants de moins de 14 ans.

Not suitable for Children under 14 years.

Niet geschikt voor kinderen onder de 14 jaar.



EIMod Thomas Kusch
Seebuckweg 9
D-78054 Villingen-Schwenningen, Germany



info@elmod.eu

EIMod Thomas Kusch
<http://www.elmod.eu>