ThinkTank Configurator
User manual

Functional range

The ThinkTank Configurator features the creation of user defined vehicle profiles or the modification of existent ones. It is useful in case the individual model strongly differs from the predefined profiles. The following ElMod control units are supported by the ThinkTank Configurator:

- ThinkTank Tank Module
- ThinkTank Halftrack (in preparation)

Connection and operation

- Connect the Think Tank Configurator to your control unit using the included EMNet-Link cable. The plug socket of the configurator is on the upper narrow side of the case.
- Set all jumpers on your control unit.
- Switch on the power.

The Configurator shows the name of the connected control unit and its firmware version. Press a key on the key field to get to the first entry of the menu structure. The function of the keys is as follows:

key	function
↑	go to the previous menu of parameter
↓	go to the next menu or parameter
+	increase a parameter value
-	decrease a parameter value
●	confirmation

The parameters are split up in three menues:

- Drive setup contains all parameters which refer to the main drive.
- Funcs setup refers to turret, lighting and other special functions.
- Device setup includes loading and storing of profiles, language selection etc.

Additionally the configurator device provides two display modes:

- Standard mode shows the basic settings only.
- Advanced mode shows all available parameters and is designated for advanced users.

The standard mode is preset by default. To switch to the advanced mode, select the according entry in the device setup menu. There are no parameter settings which can cause any damage to the electronics but certain senseless settings may cause unintended behaviour of the vehicle.

Any change of a parameter is, unless otherwise noted (see the table below), instantly executed by the control unit but it is not permanently saved! To permanently save the changed profile choose „Save Config" in the device setup menu.

The following table lists all available parameters and describes their function. Parameters which are italicized are only available in the advanced mode.

Menu Drive Setup

Parameter	Values	Function
Vmax ahead	20-125	Maximum velocity ahead
Vmax back	20-125	Maximum velocity back
Vmin	*1-60*	*Motor power level on which the vehicle starts to move. A correct value is necessary for the ThinkTank Blaster module to recognize the state in which the engine idle speed sound is played.*
V 2th, Gear	*20-125*	*Speed at which the second gear is engaged.*
Accel Low	*1-20*	*Acceleration in 1st. gear (the higher the value, the faster the acceleration)*
Accel High	*1-20*	*Acceleration in 2nd. gear (the value should be lower than the previous one)*

Spin Turn	ON/OFF	Spin Turn activated or deactivated
Min. Brake	1-20	Minimal deceleration (stick in the neutral position, runout).
Max. Brake	5-40	Maximal deceleration of the full proportional brake (around 80% stick deflection).
Emergency Brake	*5-40*	*Deceleration of the emergency brake.*
Inner ch. boost	*five levels*	*Indicates the speed of the rotation of the inner chain when driving curves. The higher the value the faster is the inner chain, the bigger is the possible curve radius.*
Outer ch. boost	*five levels*	*Indicates the boost of the outer chain when driving curves. This chain slows normally down when cornering because of higher friction. This parameter compensates this effect. Value too low: the vehicle hardly turns. Value too high: the vehicle oversteers.*
Back	-	Returns to the main menue after pressing the middle key.

Menu Funcs Setup

Parameter	Values	Function
Vmin turret	1-60	Speed on which the turret starts to move.
Vmax turret	20-125	Maximal velocity of the turret.
Recoil Mode	*Off, Tamiya, WSN, Servo*	*Type of used barrel recoil mechanics*
Rec delay Tamiya	*1-10*	*Duration of the start impulse for the barrel recoil unit (Tamiya type). One step corresponds to about 0,1sec. The impulse should last until the reaching of the reversal point of the mechanics. A good value is between 5 and 7 and depends on the quality of the mechanical installation and the system voltage.*
Rec delay WSN	*1-10*	*Time delay in 0,1sec between the reaching of the reversal point of the mechanics and the stopping of the recoil motor for WSN-type mechanics.*
Rec servo in spd	*30-255*	*Retraction speed of the servo motor used for recoil. The higher the value the faster the movement. The velocity is also determined by the type of the used servo.*
Rec srv. out spd	*30-255*	*Extraction speed of the servo motor used for recoil.*
Back	-	Returns to the main menue after pressing the middle key.

Menu Device Setup

Parameter	Function
Load Preset	Loads a presetted vehicle profile. The middle button has to be pressed for confirmation.
Save Config	Stores permanently the current settings in the control unit. The middle button has to be pressed for confirmation.
Reset to default	Restores the factory defaults. The middle button has to be pressed for confirmation.
Language	Language selection. The middle button has to be pressed for confirmation.
Advanced Menu	Advanced mode selection.
Back	Returns to the main menue after pressing the middle key.

The user has to take care by himself that the used values are reasonable!

The usual operating procedure is as follows:

- Choose a preset profile that corresponds best to your vehicle (Device Setup → Load Preset).
- Modify and test the desired parameters.
- Store the settings (Device Setup → Save Config)

The settings are now permanently stored in the control unit. They are active when all jumpers of the control unit are set.

CE