



ThinkTank Booster / TLS HL

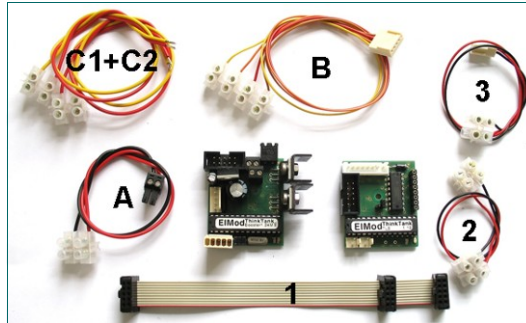
Instructions for assembly and handling

Please read this document carefully!

Scope of delivery

- ThinkTank Booster PCB
- ThinkTank TLS PCB
- Power cable A
- data cable B
- Motor cables C1+C2
- EMNet cable 1
- Turret motor cable extension 2
- Optional light cable 3

This manual is also included if modules are bought separately. Please skip the paragraphs that do not apply.



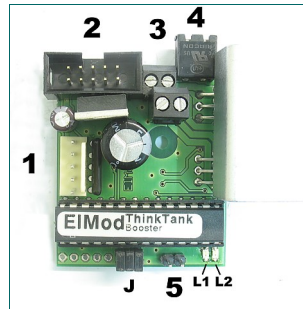
Functionalities

- No further mixers or controllers necessary.
- Simulation of mass inertia; acceleration, braking and speed similar to original tanks.
- Extended control of the turret functionalities and lighting.
 - turret speed in scale to original and arbitrary direction of canon movement.
 - control of several lighting groups
 - connection of muzzle flash and barrel recoil unit
- Easy extension due to EIMod bus system.

Overview of connectors

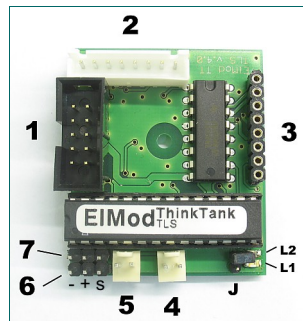
ThinkTank Booster

- 1 signal input input
- 2 EMNet-Connection for other ThinkTank modules (cable 1)
- 3 motor connector (cable C1 and C2)
- 4 power supply connection (cable A)
- 5 connection for brake light (direct connection for up to 2 LEDs. Minus left)
- J jumper for tank model configuration
- L1 power LED
- L2 command LED



ThinkTank TLS

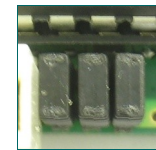
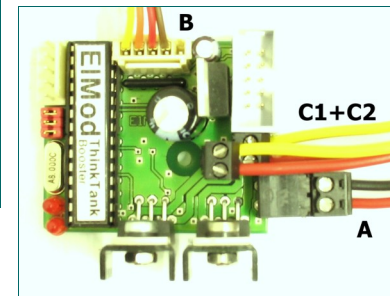
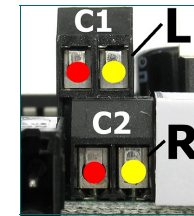
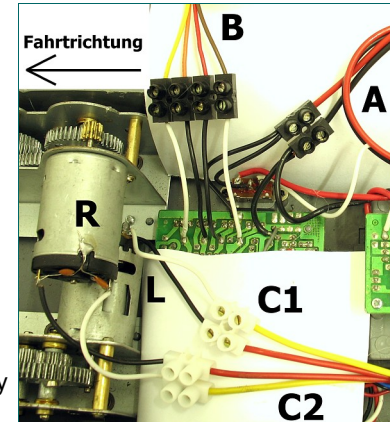
- 1 EMNet-Connection (cable 1)
- 2 signal input
- 3 supply for turret unit
- 4 auxiliary light (ex. rear light) (cable 3)
- 5 optional muzzle flash
- 6 optional servo connection for horizontal main gun movement.
- 7 optional servo connection for vertical main gun movement.
- L1 power LED
- L2 command LED



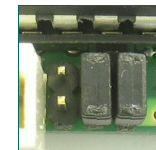
Assembly and connection of the ThinkTank Booster

Faulty wiring may cause permanent damage to the electronics! If anything is unclear, please look at our FAQ or write an email to us!

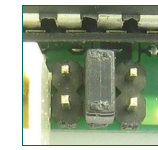
- Cut the power supply cable for the HL circuit board and connect cable A. Booster and the built-in circuit board must be supplied with power.
- Cut the four motor cables in the middle.
- Cable B has to be connected with the two cable ends which lead away from the control circuit board. The order of connection must be followed precisely: starting at the edge of the circuit board, yellow-orange-red-brown.
- Each of the cables C have to be connected with the motors.
- Cable C which is connected to the motor driving the LEFT chain (in direction of motion) is called C1, the other one C2.
- Keep in mind that the colors of the cables in your tank may vary! Always connect light-colored cables with light-colored ones and dark-colored ones with dark-colored ones!
- Connect the wires with the ThinkTank Booster:
 - cable A with connector 4
 - cable B with connector 1
 - cable C1 and C2 with connector 3
- Set the jumpers due to your tank model .



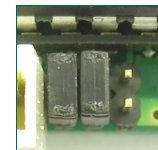
Pure Tank (no simulation of mass inertia. Not recommended.)



Heng Long Tiger or Panther



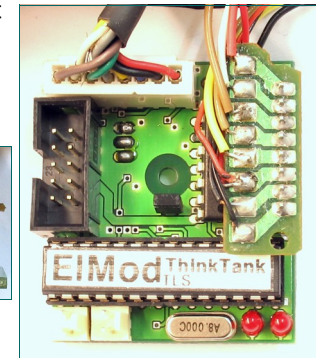
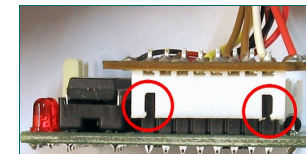
Heng Long Pershing or Walker Bulldog



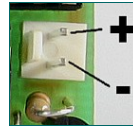
WSN T-34 (an additional wire set is required)

Assembly and connection of ThinkTank TLS

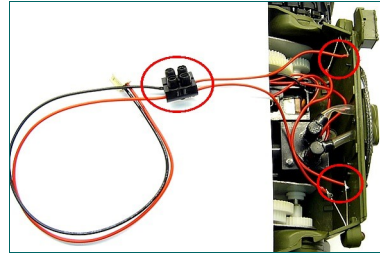
- Remove the TLS jumper if you don't want to use barrel recoil unit of a third-party manufacturer.
- Connect the 8-pin plug of the HL circuit board with connector 2.
- ThinkTank Booster and ThinkTank TLS are connected using the EMNet cable.
- Connect the 8-pin plug of the turret with connector 3 of the TLS. PAY ATTENTION THAT THE INDICATIONS POINT TOWARDS THE EDGE OF THE PCB (as indicated on the photo).
- In case the cables of the turret motor are too short, you can extend them using cable 2.



- Connectors 4 and 5 are for optional lights. To each connector one to four LEDs can be attached directly without any further parts. Polarity is as indicated on the photo.



- Connector 4 can be used to control tail light (Heng Long Pershing / Walker Bulldog). Connect cable 3 with connector 4 and wire it as indicated on the photo.
- Other tank models can use the connector for any other light like searchlight or Kolonnenfahrtgerät.
- Connector 5 provides a short pulse every time the tank shoots. It can be used for a muzzle flash using an LED or an appropriate flash module.



Initiation

- Make sure that all connections are well fixed and that no conductive parts can touch each other.
- Switch on the remote control and the tank exactly in this order.
- Both power LEDs should go on.
- Move the right lever of the remote control. The tank starts moving.

Depending on the receiver it may be necessary to adjust the channel order or their polarity.

Check the manual of your radio for details.

Operation state LEDs

Power-LED	on	Module is operational
	blinking	Searching for connected modules
Command-LED	on	Stick out of neutral position / valid command

Brakes

The ThinkTank Booster module disposes of three degrees of braking:

Motor brake	Chain brake	Emergency brake
Put the lever in neutral position.	move the stick half-way to opposite direction	move the stick completely to opposite direction
Rolling out	Full brake	Immediate halt

Controlling the TLS (standard version only)

The control of the light group and the tower unit is carried out as follows:

→ Rotate turret right	↖ Engine on/off (function requires a ThinkTank Blaster module)
← Rotate turret left	↗ Main gun shot
↑ Lift cannon	↙ Main light
↓ Lift cannon in opposite direction	↘ Auxiliary light (Connector 4 on TLS)
	G MG

Please visit our website and take a look on the FAQ for in-depth informations

Nicht geeignet für Kinder unter 14 Jahren.

Not suitable for Children under 14 years.

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

Niet geschikt voor kinderen onder de 14 jaar.

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