



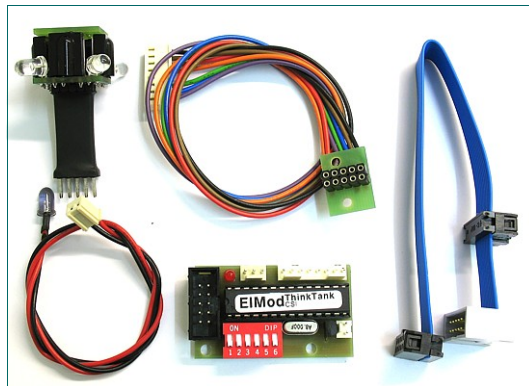
ThinkTank CSI (Combat Simulation Interface) instructions for assembly and operation

Please read these instructions carefully before assembling the parts.

A warranty by inappropriate installation or by ignoring of the instructions stated here is neglected.

Scope of delivery

- ThinkTank CSI-board
- EMNet extension
- IR transmitter
- mushroom socket
- mushroom with IR sensors and hit indicator (not included with article 5515)



Requirements for operation of this module:

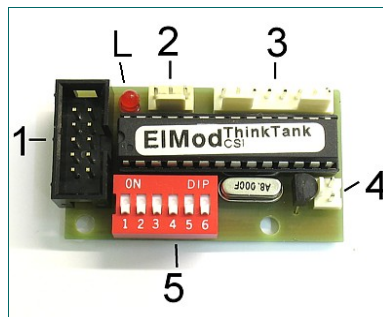
- ThinkTank Booster with firmware version 1.26 or later
- ThinkTank TLS firmware version 1.19 or later
- optional: ThinkTank blaster with firmware version 1.04 or later and "battle-enabled" sample set (SD card version 1.04 or later labeled "CSI-Ready")

Product features

- Battle system based on infrared for remote controlled tanks
- fully compatible with established IR systems
- extended battle mode with four hit areas
- driving power and turret function depending on damage
- blockade of shot functionality during recharge
- if used with ThinkTank Blaster: signals for events by appropriate sound (hit, tank destroyed, reloading finished, reactivated)
- easy assembly
- dimensions: main board 28 mm x 46 mm (1.1" x 1.8"), mushroom 20 mm x 20 mm (0.8" x 0.8")
- optional connector for ThinkTank Tracker

Overview of connectors

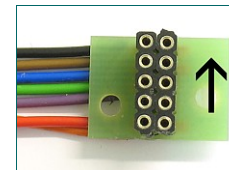
- 1 EMNet connector
- 2 connector for ThinkTank Tracker
- 3 connector for mushroom socket
- 4 connector for IR sender
- 5 DIP switch
- L status LED



Assembly and connection

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

- Fasten the mushroom socket in an adequate position (i.e. in a turret hatch). The feed cables must be on the left side referring to the driving direction.
- Connect the cable of the mushroom socket with the CSI board.
- Fasten the IR sender in an adequate position (i. e. the opening for the MG in the front turret shield) and connect the cable with the CSI board.
- Use the EMNet extension to connect the circuit board with other ThinkTank components. The cable is supposed to extend the already used ribbon cable. It is not supposed to build up a Y connection!
- Fasten the mushroom on the socket. The writing on the mushroom points to the front or back.



Configuration of the DIP switches

Switch 1 and 2	off/off	heavy Tank
Armor type / Test Mode	on/off	middle Tank
	off/on	light Tank
	on/on	Test mode
Switch 3	off	compatibility mode
Battle mode	on	extended battle mode
Switch 4	off	Tank has a turret (turret can be damaged)
Tank type	on	Tank has no turret (only drive can be damaged)
Switch 5	off	infinite lives
Lives	on	only one life (after being destroyed, tank isn't reactivated)
Switch 6		not used

Armor type: The armor type has influence on the numbers of hits which are necessary to destroy the tank, the time needed to reload and the time of invulnerability.

Test mode: The tank reacts on any IR signal (i. e. remote control). This is used to check functioning.

Tank type: Using extended battle mode, this switch determines if the turret can be damaged or if the drive gets all hits.

Lives: If the switch is set to infinite lives, the destroyed tank will be reactivated after a certain time. Otherwise the tank will not be reactivated.

All details about the battle rules can be found on our website in the document called "CSI description".

Initiation

- Put the CSI in test mode (switch 1 and 2 "on") and switch on the tank.
- Check the functioning of the CSI with a remote control. When a button is pressed the LEDs of the mushroom blink and if the ThinkTank Blaster is installed a "hit-sound" can be heard.
- Trigger a shot. If an other CSI equipped tank is in range, it will react to the hit.

Status LED

on	module is operational
blinks 3 times	hit detected
permanent blinking after a hit	tank is destroyed
off after a shot	shot detected, LED will be back on after one second

Installation of the ThinkTank Tracker

The ThinkTank Tracker detects the position of the turret and reports it to the CSI module. This is used to reallocate the hit areas in the extended battle mode when the turret is rotated.

To install the ThinkTank Tracker please proceed as follows:

- Fasten the sensor board (the slanted sides of the sensors have to be 2 - 3 mm above the turret sprocket).
- Align the turret ahead.
- The four magnets have to be fixed in 45° respectively 135° angles from the sensor board. Make sure the magnets passes the sensors when the gun points to 45° directions (at 1:30, 4:30, 7:30, 10:30)
- The markers on the magnets point in direction of the turret sprocket.
- For proper function make sure the main gun points to the front when you switch on the tank.
- If a magnet passes the sensors, the status LED of the CSI goes out for a moment.

Compact battle description

- After switching on the tank is invulnerable for 10 to 15 seconds depending on the chosen armor type. During that time it is fully operational. In the first moment after powering up, the hit indicator blinks 1 to 4 times, depending on chosen armor type.
- After this time it can be hit and damaged by other tanks which take part in the battle.
 - In the compatibility mode a hit can cause damage of the drive which has an effect on the speed of the tank: it gets slower. After three to nine more hits (depending on the chosen armor type) the tank is destroyed.
 - In the extended mode a hit can damage one or both sides of the drive or the turret depending on the direction of the shot and a random component. There is the possibility of a coup de grâce which means that the tank is destroyed immediately.
- After each hit the tank will stand still for two seconds. During that time it is invulnerable.
- If the tank is destroyed the LED of the mushroom and the front lights blink. If switch 5 is deactivated the tank is reactivated after 15 seconds and it is invulnerable for a few seconds. If switch 5 is active the tank does not move until it is switched off.
- After a shot, the tank needs some time to reload. During this time no further shots can be evoked. This can take up to nine seconds depending on the chosen plating.

All details about the CSI rules you can find in the document called "CSI description" on our website.

Battle sounds

If ThinkTank Blaster and an appropriate sample set (SD card is labeled with "CSI-Ready") are used the following events are accompanied with sound:

- Tank is being hit
- Tank is being destroyed
- Tank reactivated after being destroyed
- Reloading finished, shot can be invoked

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.

EIMod Dipl.-Inf.(FH) Thomas Kusch und Jürgen K. Huber GbR

Millotstraße 15/1

D-72622 Nürtingen

DEUTSCHLAND / GERMANY



EIMod Dipl.-Inf.(FH) Th. Kusch & Jürgen K. Huber GbR
info@el-mod.de **http://www.el-mod.de**

