# 0 ToDo

* Fill this list

# Mechanic

**ToDo**  
- Isolate signal ground from earth? Check cinch assembly.  
- measure and correct: Power Inlet, config dip switches

# Electronics

* 1. Overview

**SP Board**

* Speaker protection
* Speaker relay

Speaker connectors

*Air*

**Amp Board**

SymAsym AMP

Fan

**Rectifying Board**

* Rectifier
* Smoothing

capacitor

Main Transformer

**Energy Distribution**

* Fuse
* Main relay
* Soft start for main

transformer

* Auxiliary transformer
* Inlet connector
* main switch

Abbildung - to use word is a shit way to create such graphics

UI

*Protection state*

*enable Speaker*

*measure*

Enable input

**Control Board**

Micro processor

(µP)

* 1. Energy Distribution

This module is intended to supply the different voltages needed for the periphery and also the standby supply. Therefore, it got its own transformer.

Omron G2R-1 Relay: 12V 50mA (roughly)

**Power assessment**Speaker Protection: 100mA 12V or 50mA 24V (1,2W)  
Main Relay: 50mA 12V (0,6W)  
Soft start relay: 50mA 12V (0,6W)  
Control Board: 100mA 5V (0,5W)  
Cooling Fans: 2x0,5A 12V (12W)  
UI/Display: 200mA 5V (1W)

Sum: P=15,9W; I12V=1,2A; I5V=300mA

**Power supply design**

I didn’t distinguish between 5V and 12V since the 5V regulator will generate more power dissipation due to the much higher voltage gap (regulator input voltage of 7V to transformer voltage).

* 1. Rectifying Board
  2. Amp Board

120ohm resistor from amp ground to ground (why was that?)

* 1. Control Board

measures secondary voltage of main transformer and enables speaker output when within set parameters.

* 1. Fan control
* Check if first draft works
* Add some results from oscilloscope
  1. SP Board