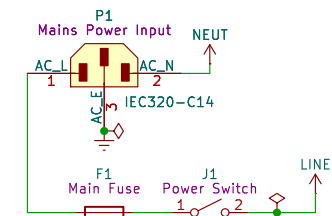


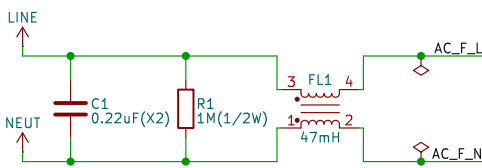
## Mains Input



F1 is a fast-blow fuse rated for 5A @ 250V  
J1 is a connector for wires to a panel mounted rocker switch

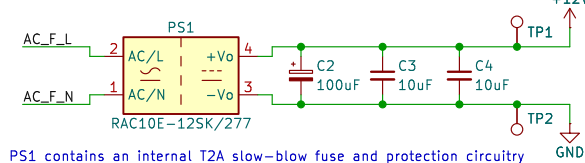
All components that touch mains AC have relevant certifications, with specific file numbers noted in the supporting documentation.  
Protective earth from the mains power input is connected to the chassis through the PCB mounting holes.

## AC Power Line Filter



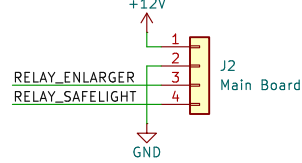
Filter circuit is based on the RAC10E-K/277 datasheet recommendation for meeting EN55032 class "B" requirements on a device with protective earth referenced output connections  
R1 is a UL1676 approved bleeder resistor

## AC/DC Conversion

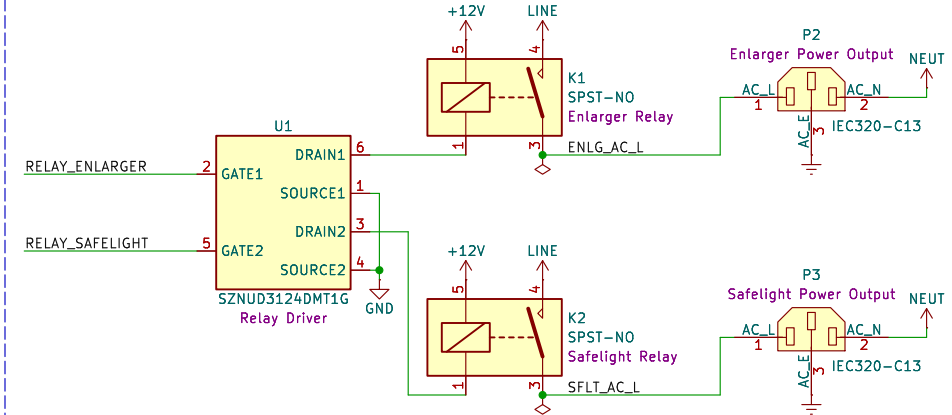


PS1 contains an internal T2A slow-blow fuse and protection circuitry

## Main Board Connection

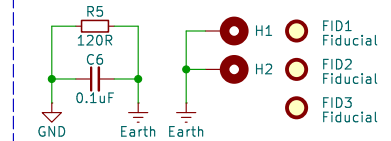


## Output Power Switching

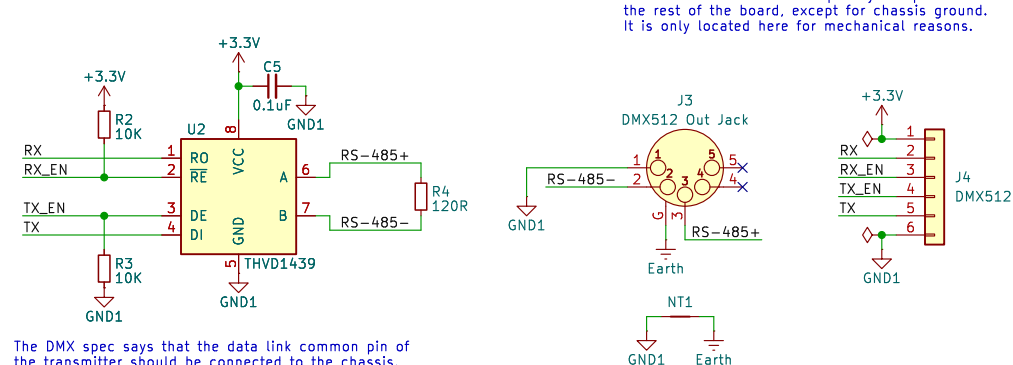


U1 contains all the necessary protection diodes as part of its design, and thus does not require external support components.  
See datasheet for details.

## Enclosure Mounting



## DMX512 / RS-485 Line Driver



The DMX spec says that the data link common pin of the transmitter should be connected to the chassis.

This section should be completely independent of the rest of the board, except for chassis ground. It is only located here for mechanical reasons.

Derek Konigsberg  
Dektronics, Inc.

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File: power-board.kicad\_sch

**Title: Printalyzer – Power Input Board**

Size: USLetter Date: 2024-06-12

KiCad E.D.A. 8.0.3

Rev: E

Id: 1/1