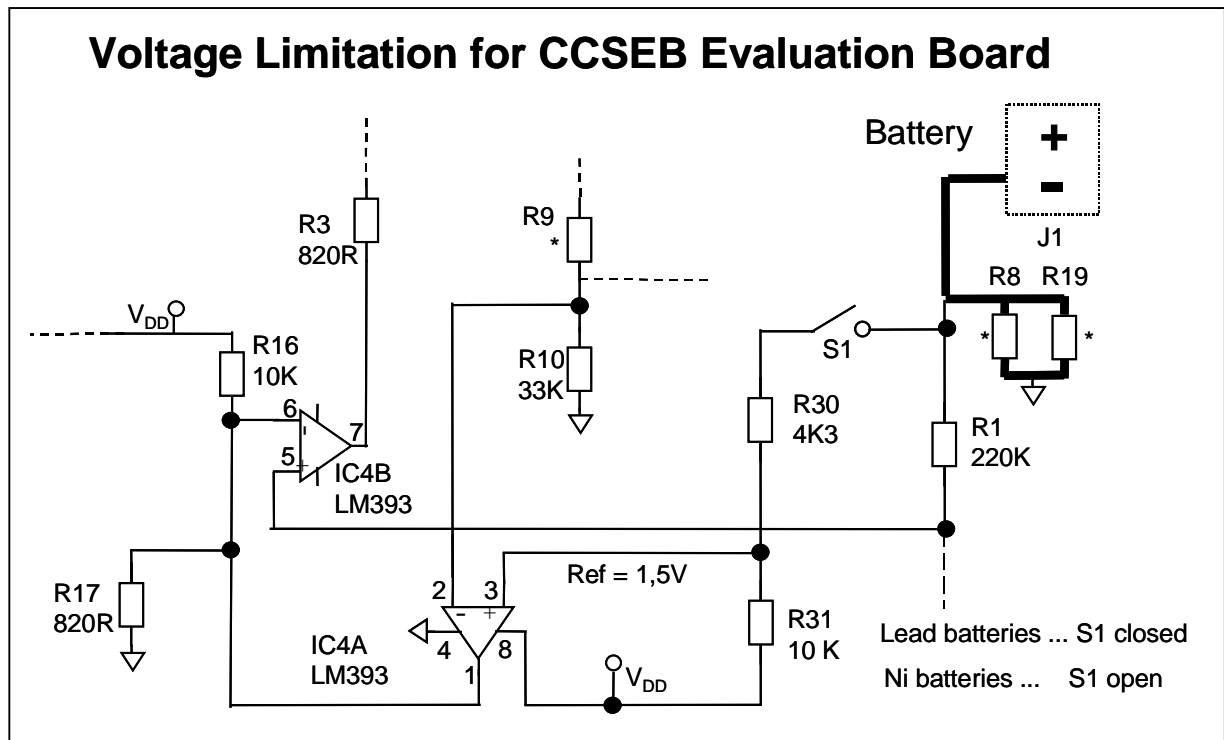


Some Battery technologies e.g. Lead Acid, LiIon need voltage and current limitation during charge. With some changes it is possible to set voltage limitation on the CCSEB Evaluation Board.



The resistor divider R30/R31 sets voltage to the max. voltage per cell.

$$V_{Ref} = V_{DD} * \left(\frac{R_{30}}{R_{30} + R_{31}} \right) \quad R_{30} = R_{31} * \left(\frac{V_{Ref}}{V_{DD} - V_{Ref}} \right)$$

The following table shows typical values for R30 @R31=10k

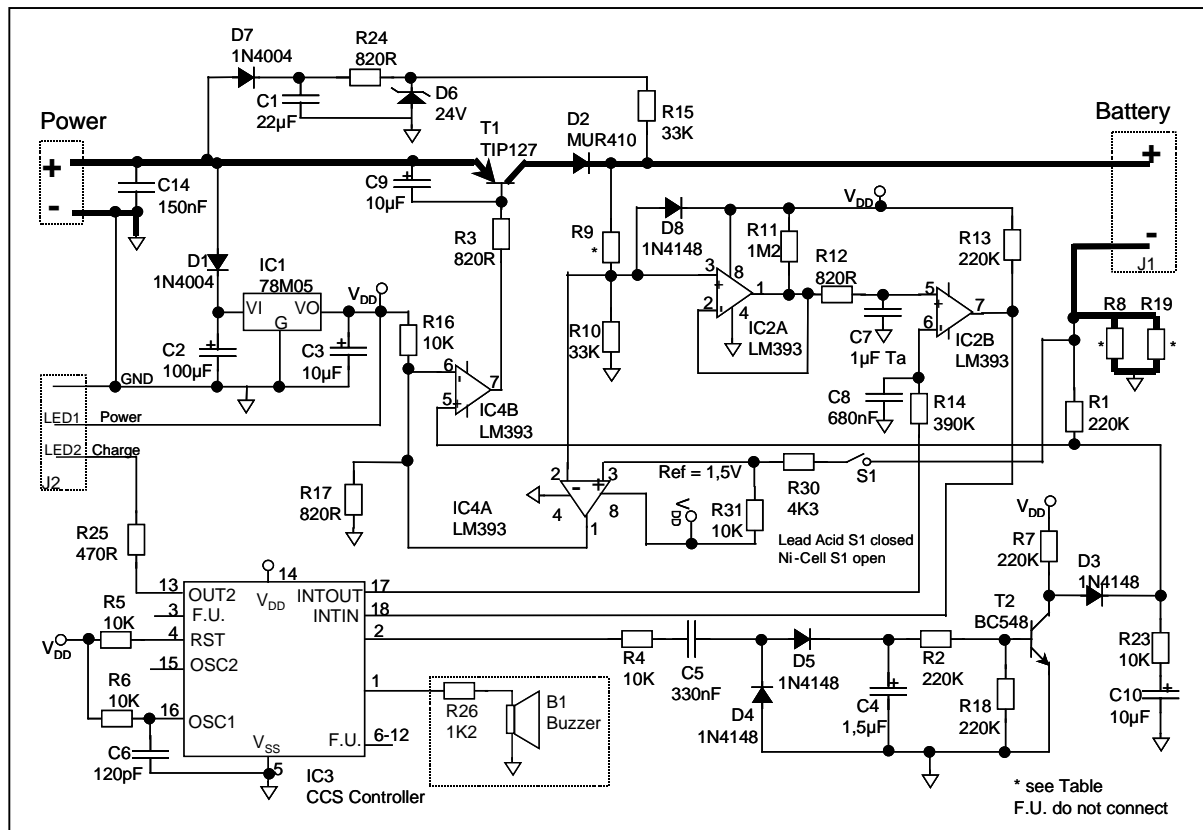
V _{Ref}	1,3	1,5	2	3	3,3	4	V
R30	3.3	4.3	6.8	15	20	40	kΩ

If during charge the max. voltage V_{Ref} is reached IC4A reduces the charge current.

Lead cells:

Set the limitation to Ref=1,5V (R30=4K3 @R31=10K). This setting is valid for all different battery voltages (e.g. 6V, 12V).

Schematic:



Changes on the Evaluation Board CCSEB:

- Disconnect R22 (33K) and R21 (220K)
- Disconnect R20 (1K2) and connect Pin1 of IC4A with Pin6 of IC4B
- Disconnect Pin3 of IC4a with Pin6 of IC4B
- Connect Pin2 of IC4A with R9/R10
- Connect R31 (10K) with Pin8 and Pin3 of IC4
- Connect R30 with Pin3 of IC4A with Battery –

Comments: Our aim is to help you best in the design of superior chargers with CCS-technology. This Application Note was carefully composed. However, according to the wide range of solutions not all aspects and possibilities can be covered by this publication. Furthermore errors cannot be completely excluded and we do not provide any responsibility for the given applications. Therefore we welcome your response comments and suggestions for further improving our CCS-Application Notes. **Thank you!**

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