

Dual 5 V Rails from a 9 V Battery

A 7660 positive-to-negative rail inverter is used here in conjunction with a pair of CMOS IC regulators, a 7663 for the positive rail and a 7664 for the negative rail (all ICs from Intersil, second-sourced by Tele-dyne). These regulators draw only 3.5 μA quiescent current but will regulate up to 40 mA output current. Output voltages are determined by the ratios of $R_2:R_1$ and $R_3:R_4$. The 47n capacitors on the regulator inputs should be ceramic types and are there to prevent instability. Circuit continues to function at battery voltages down to 6 V.

