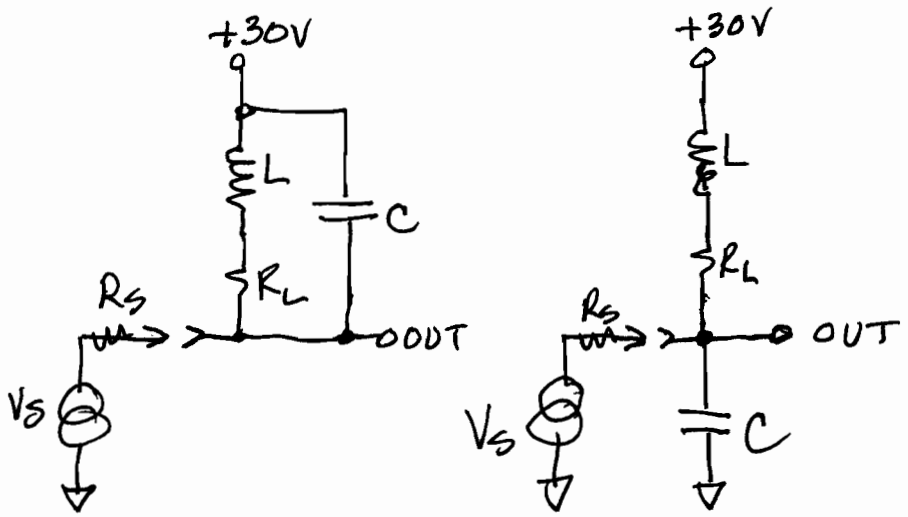
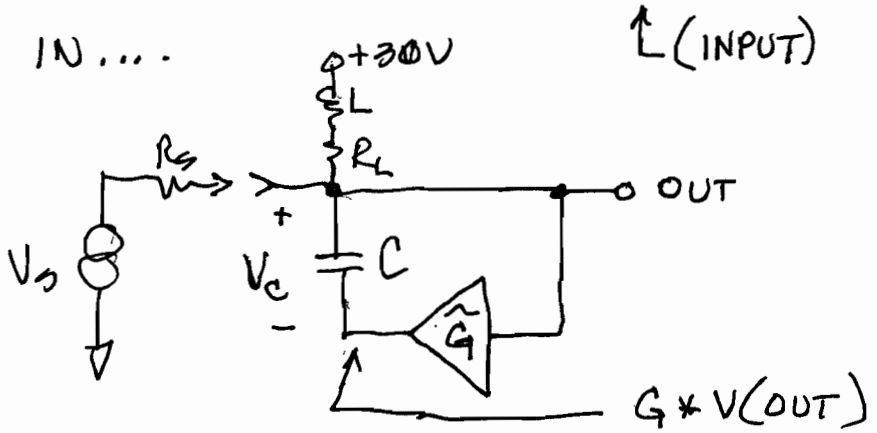


BOTH CIRCUITS ABOVE HAVE IDENTICAL CIRCULATING CURRENT BEHAVIOR.

WHY? TWO REASONS, +30V MEETS THE REQUIREMENTS OF BEING A VIRTUAL GROUND, AND THERE CAN BE NO DC CURRENT IN C.

IF YOU ADD AN A-C-COUPLED AMPLIFIER, AS IN....



WHAT DO YOU GET?

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C HAS A VOLTAGE ACROSS IT OF VALUE...

$$V_C = V_{OUT} * (1 - G)$$

WHICH MAKES THE C BEHAVE AS AN EQUIVALENT VALUE,...

$$C_{EQUIV} = C * (1 - G)$$

IF $G = +0.2$

THEN C_{EQUIV} IS 20% LOW

IF $G = -0.2$

THEN C_{EQUIV} IS 20% HIGH

MAKE G A VOLTAGE CONTROLLABLE GAIN & YOU HAVE TUNING!

—JT 11/22/2013

AND THE AMPLIFIER IS NOT FLOATING. IT CAN BE REFENCED TO GROUND OR ANY CONVENIENT POTENTIAL.