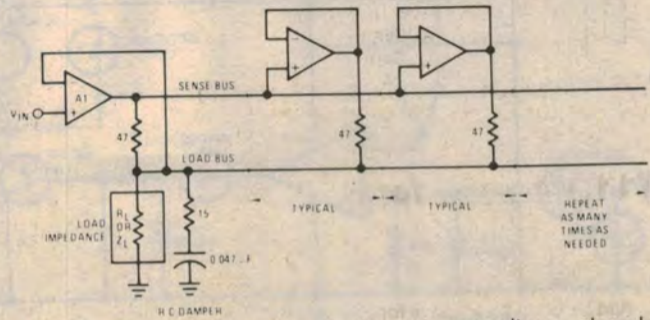


Obtaining more power from dual or quad op amps

National Semiconductor Corporation suggests the accompanying circuit for driving large currents into resistive, reactive, nonlinear, passive or active loads.

It operates on the principle that every op amp has to deliver the same current as the main amplifier, A1. A quad op amp can deliver approx 8 volts RMS to a 600Ω load, when set up in this configuration. An RC damper of 15Ω in series with a $0.047\mu\text{F}$ capacitor is sometimes useful to prevent ultrasonic oscillations.

The circuit is easily expandable to use as many as 4, 8, 20 or more op amps, for driving heavier loads. It is not necessary for the main amplifier A1 to run as a unity gain non-inverting amplifier. A1 can



function in either the inverting or non-inverting mode, and with any desired gain – bearing in mind the normal limita-

tions regarding bandwidth and distortion.
(From National Semiconductor Linear Brief LB-44.)