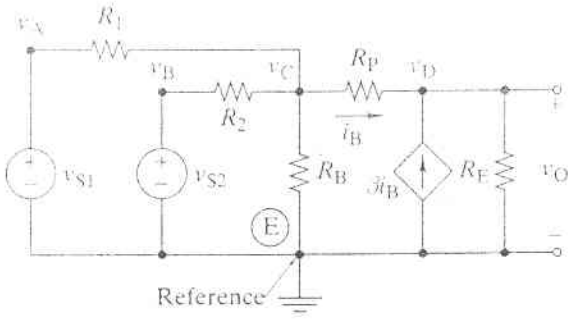


FIGURE 4 – 8 *Circuit used for node-voltage analysis with dependent sources.*

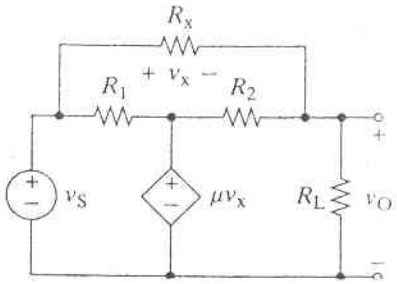


FIGURE 4 – 9

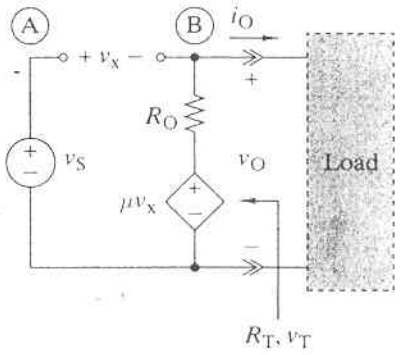


FIGURE 4 – 10

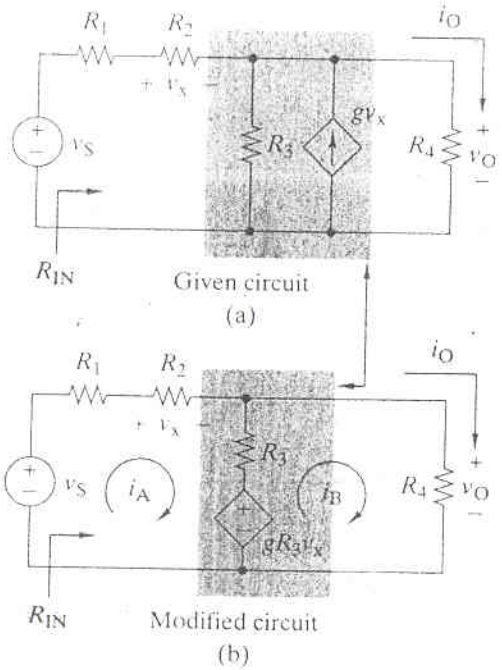


FIGURE 4 – 18

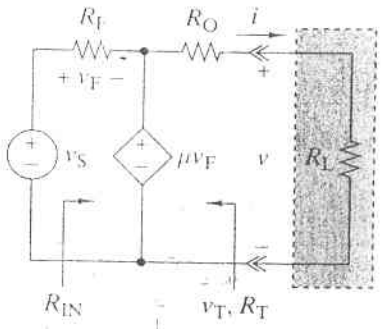


FIGURE 4 – 17

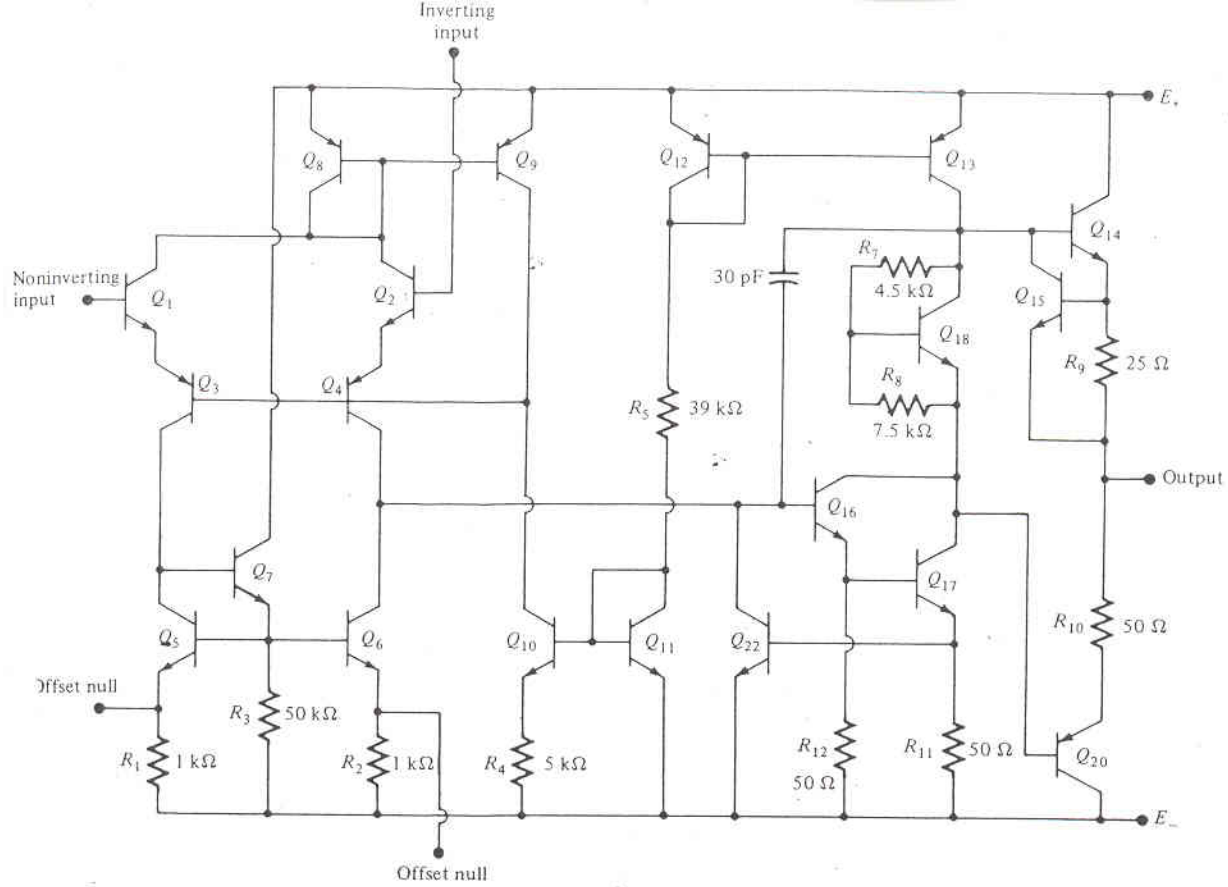
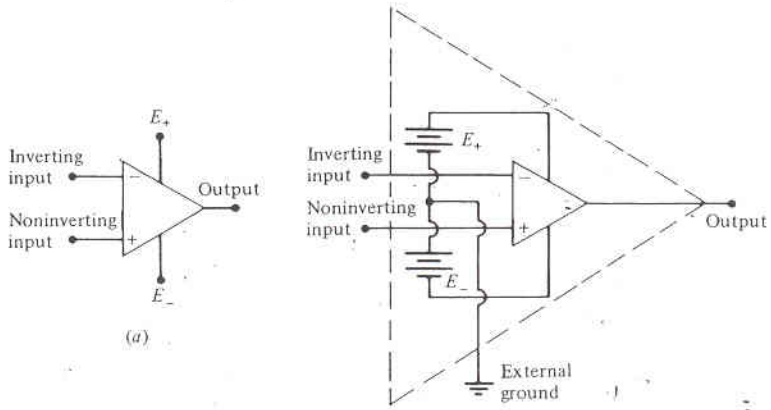


Figure 1.3 Schematic of the μA741 op amp.



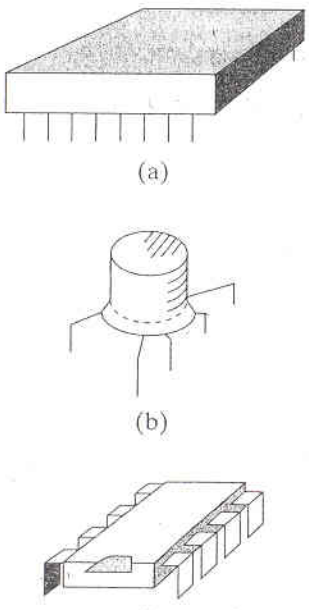


FIGURE 4 – 2 3 *Examples ntegrated circuit OP AMP packs: (a) Encapsulated hybrid. (b) -5 can. (c) Dual in-line package.*

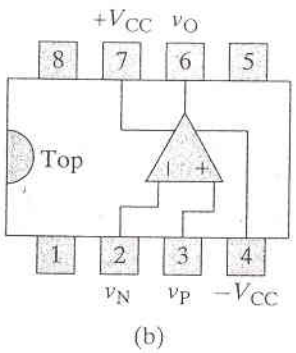


FIGURE 4 – 2 4 *The OP AMP: (a) Circuit symbol. (b) Pin out diagram for an eight-pin package.*

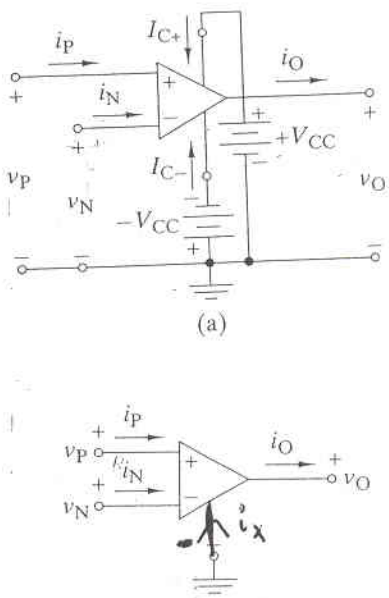


FIGURE 4 – 2 5 *OP AMP voltage and current definitions: (a) Complete set. (b) Shorthand set.*

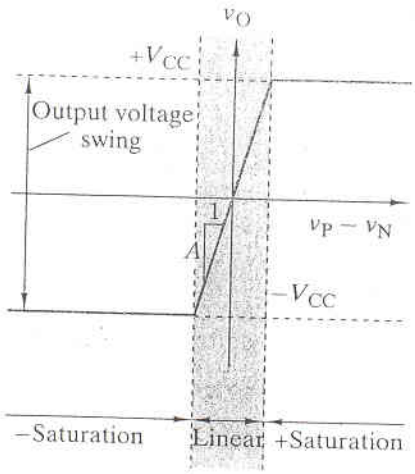


FIGURE 4 – 26 *OP AMP transfer characteristics.*

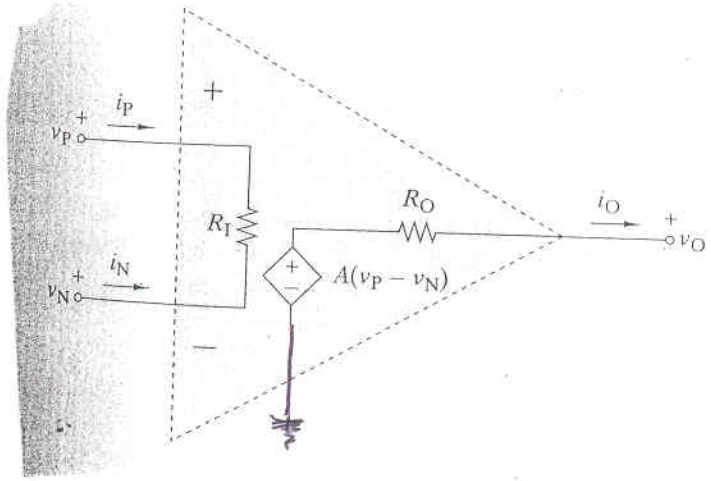


FIGURE 4 – 27 *Dependent source model of an OP AMP operating in the linear mode.*

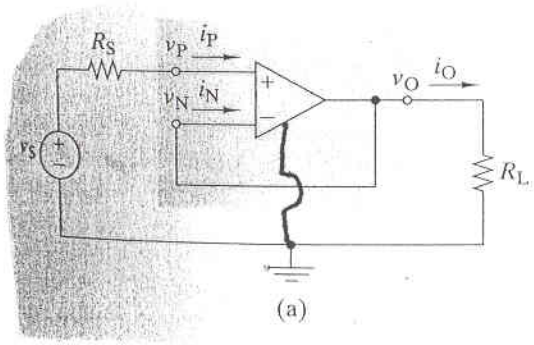


FIGURE 4 – 32 *(a) Source-load interface with a voltage follower. (b) Interface without the voltage follower.*

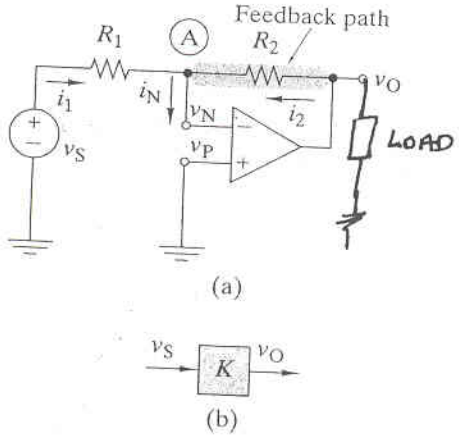


FIGURE 4 – 33 *The inverting amplifier circuit.*

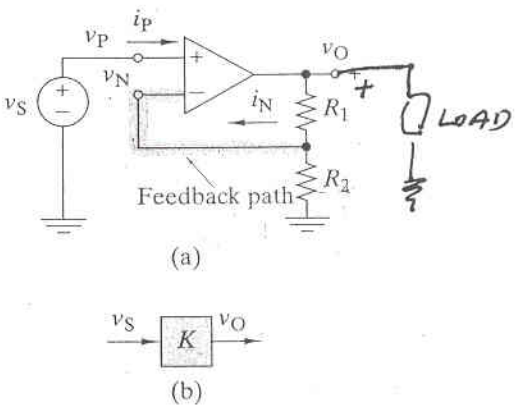


FIGURE 4 – 29 *The noninverting amplifier circuit.*

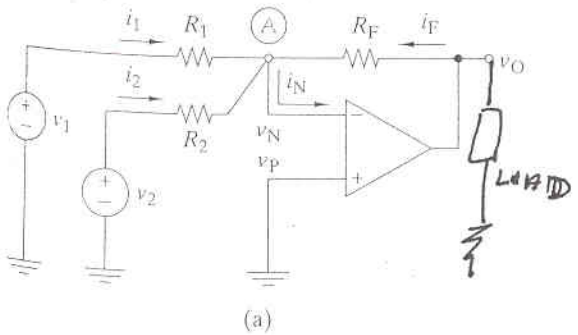


FIGURE 4 – 36 *The inverting summer.*

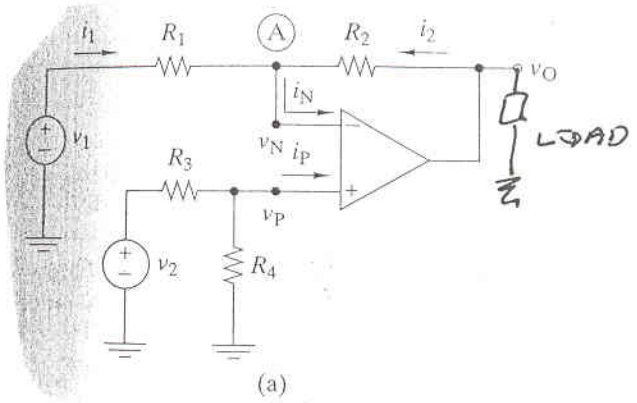


FIGURE 4 – 38 *The differential amplifier.*

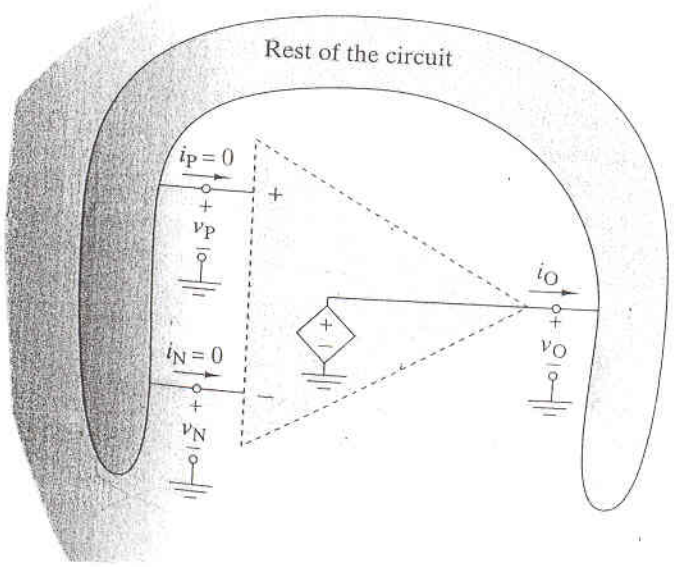


FIGURE 4 – 43 *General OP AMP circuit analysis.*

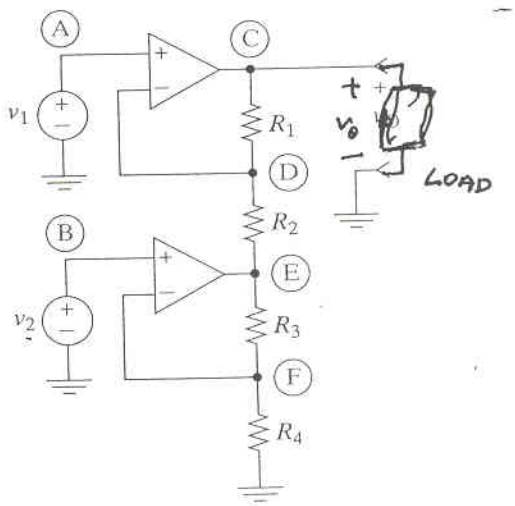


FIGURE 4 – 44