

POWER INTEGRATED CIRCUITS FOR MOTOR-DRIVE APPLICATIONS

IMPROVED SYSTEMS PERFORMANCE and reliability, lower component counts, and reduced cost are among benefits offered by space-saving Sprague power interface ICs. Many of the following devices are specifically designed for motor-drive applications. The development of these devices is especially significant in view of the increasing use of

microprocessor-controlled servo and stepper motors.

Combining logic, power, and control in an integrated circuit requires special design techniques and experience. Sprague Electric has long been a leader in peripheral power interface technology.

UCN-4204B AND UCN-4205B STEPPER-MOTOR TRANSLATOR/DRIVERS

UCN-4204B & UCN-4205B INTEGRATED circuits drive permanent magnet stepper motors rated to 1.25 A and 30 V with a minimum of external components.

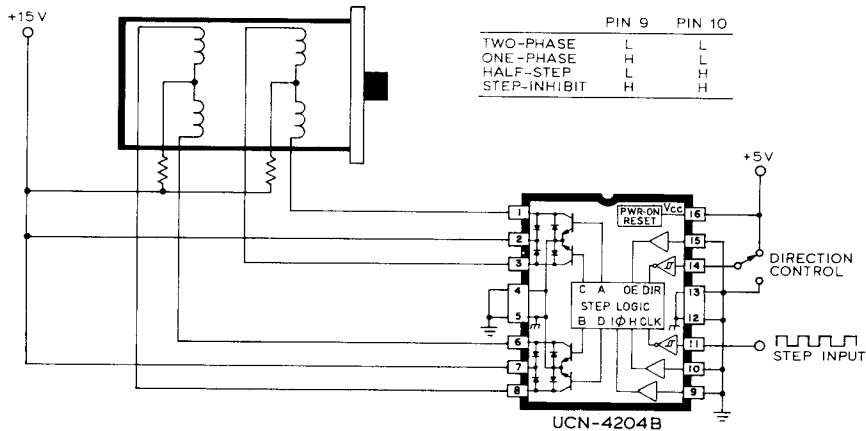
Internal step logic activates one or two of the four output sink drivers to step the load from one position to the next. The logic is activated when STEP INPUT (pin 10) is allowed to go HIGH. Single-phase (A-B-C-D), two-phase (DA-AB-BC-CD), or half-step (A-AB-B-BC-C-CD-D-DA) opera-

tion, and step-inhibit are selected by connections at pins 9 and 10. The sequence of states is determined by the DIRECTION CONTROL (pin 14).

RECOMMENDED MAX. OPERATING CONDITIONS

Output Voltage, V_{OUT} (UCN-4204B)	15 V
(UCN-4205B-2)	25 V
Output Current, I_{OUT}	1.25 A
Logic Supply Voltage, V_{CC}	4.5 V to 5.5 V
Input Voltage, V_{IN}	5.5 V

L/R STEPPER-MOTOR DRIVE



(Fig. No. B-1539)