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# RETRACT CIRCUIT AND RETRACT METHOD, AND DISK DRIVE ABSTRACT

When drive supply voltage  $V_{cc}$  is applied, a retract circuit charges a retract condenser  $C_r$  with boosted voltage  $V_{up}$  ( $=3 \times V_{cc}$ ) generated by a booster circuit (26). Then, if the drive supply voltage  $V_{cc}$  is cut off and a VCM driver (12) stops, the retract circuit (13) detects power-off with a power OFF sense circuit (21), and provides retract delay time  $T_d$  by a retract delay circuit (22). Furthermore, when the retract delay time  $T_d$  elapses after the drive power supply is turned off, the retract driver (23) switches switching circuits (24) and (25) on, discharges the retract condenser  $C_r$  charged at the boosted voltage  $V_{up}$ , supplies discharge current to a voice coil (5a), and retracts a head assembly.

FIG 3



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