

ABSTRACT

An embodiment relates to a memory device and a method of operating the memory device. The memory device includes a memory block including a plurality of pages respectively
5 corresponding to a plurality of word lines, peripheral circuits configured to apply operation voltages to the plurality of word lines and sequentially discharge or simultaneously discharge the plurality of word lines during a program operation, and control
10 logic configured to control the peripheral circuits to sequentially discharge or simultaneously discharge the plurality of word lines based on whether a selected page among the plurality of pages is included in a weak page group during the program operation.

FIG. 2