◆ **Initializing by Internal Reset Circuit**

The KS0070B automatically initializes (resets) when the power is on using the internal reset circuit. The following instruction are executed in initialization. The busy flag is kept in busy state (BF=1) until initialization ends. The busy state is 10ms after VDD rises to 4.5V.

  (1) Display Clear
  (2) Function Set
      DL = 1 : 8-bit interface data
      N = 0 : 1-line display
      F = 0 : 5x7-dot character font
  (3) Display On/Off Control
      D = 0 : Display Off
      C = 0 : Cursor Off
      B = 0 : Blink Off
  (4) Entry Mode Set
      I/D = 1 : +1 (Increment)
      S = 0 : No Shift

◆ **Initializing by Instruction**

Power On

Wait for more than 15ms after VDD rises to 4.5V

RS	R/W	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0	0	0	0	1	1	*	*	*	*

BF cannot be checked before this instruction.
Function Set

Wait for more than 4.1ms

RS	R/W	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0	0	0	0	1	1	*	*	*	*

BF cannot be checked before this instruction.
Function Set

Wait for more than 100μs

RS	R/W	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0	0	0	0	1	1	*	*	*	*

BF cannot be checked before this instruction.
Function Set

BF can be checked after following instruction.
When BF is not checked, the waiting time between instructions is longer than execution instruction time.

RS	R/W	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
0	0	0	0	1	1	N	F	*	*
0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	1	I/D	S

Function Set (Specify the number of display lines and character font.) The number of display lines and character font cannot be changed afterwards.
Display Off
Display Clear
Entry Mode Set

↓
Initialization ends