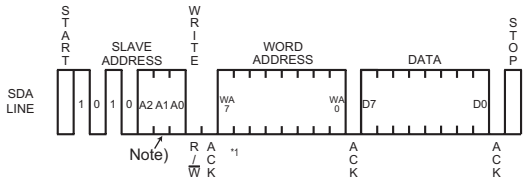
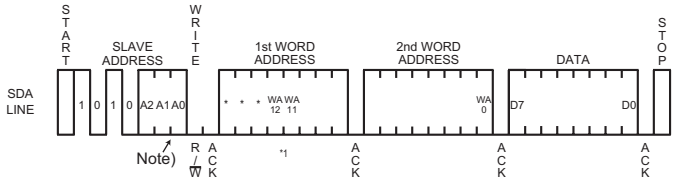
○ Write cycle

- Arbitrary data is written to EEPROM. When to write only 1 byte, byte write is normally used, and when to write continuous data of 2 bytes or more, simultaneous write is possible by page write cycle. The maximum number of write bytes is specified per device of each capacity.
  Up to 32 arbitrary bytes can be written. (In the case of BR24L32 / L64-W)



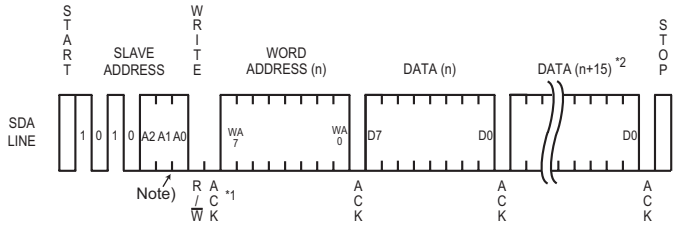
*1 As for WA7, BR24L01A-W becomes Don't Care.

Fig.36 Byte write cycle (BR24L01A/02/04/08/16-W)



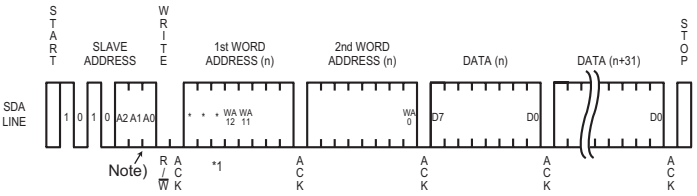
*1 As for WA12, BR24L32-W becomes Don't care.

Fig.37 Byte write cycle (BR24L32/64-W)



*1 As for WA7, BR24L01A-W becomes Don't care.
*2 As for BR24L01A/L02-W becomes (n+7).

Fig.38 Page write cycle (BR24L01A/02/04/08/16-W)

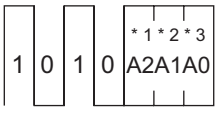


*1 As for WA12, BR24L32-W becomes Don't care.

Fig.39 Page write cycle (BR24L32/64-W)

- Data is written to the address designated by word address (n-th address).
- By issuing stop bit after 8bit data input, write to memory cell inside starts.
- When internal write is started, command is not accepted for tWR (5ms at maximum).
- By page write cycle, the following can be written in bulk: Up to 8 bytes (BR24L01A-W, BR24L02-W)
  Up to 16 bytes (BR24L04-W, BR24L08-W, BR24L16-W)
  Up to 32 bytes (BR 24L32-W, BR24L64-W)
  And when data of the maximum bytes or higher is sent, data from the first byte is overwritten.
  (Refer to "Internal address increment" of "Notes on page write cycle" in P8/16.)
- As for page write cycle of BR24L01A-W and BR24L02-W, after the significant 5 bits (4 significant bits in BR24L01-W) of word address are designated arbitrarily, and as for page write command of BR24L04-W, BR24L08-W, and BR24L16-W, after page select bit (PS) of slave address is designated arbitrarily, by continuing data input of 2 bytes or more, the address of insignificant 4 bits (insignificant 3 bits in BR24L01A-W, and BR24L02-W) is incremented internally, and data up to 16 bytes (up to 8 bytes in BR24L01A-W and BR24L02-W) can be written.
- As for page write cycle of BR24L32-W and BR24L64-W, after the significant 7 bits (in the case of BR24L32-W) of word address, or the significant 8 bits (in the case of BR24L64-W) of word address are designated arbitrarily, by continuing data input of 2 bytes or more, the address of insignificant 5 bits is incremented internally, and data up to 32 bytes can be written.

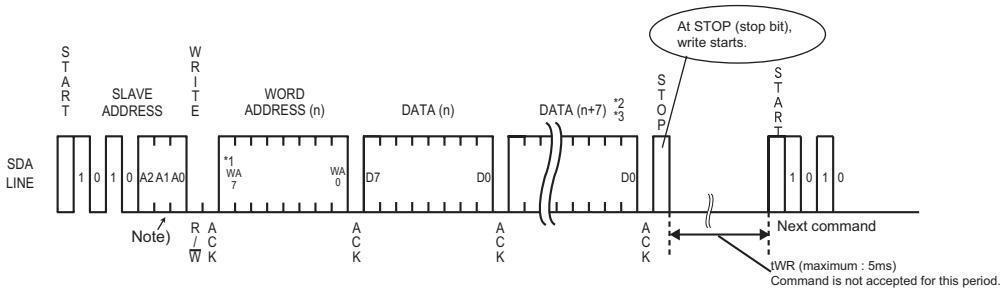
Note)



*1 In BR24L16-W, A2 becomes P2.
*2 In BR24L08-W, BR24L16-W, A1 becomes P1.
*3 In BR24L04-W, A0 becomes PS, and in BR24L08-W and BR24L16-W, A0 becomes P0.

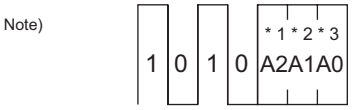
Fig.40 Difference of slave address of each type

Notes on write cycle continuous input



*1 BR24L01A-W becomes Don't Care.
*2 BR24L04W-W, BR24L08-W, and BR24L16-W become (n + 15).
*3 BR24L32-W and BR24L64-W become (n + 31).

Fig. Page write cycle



*1 In BR24L16-W, A2 becomes P2.
*2 In BR24L08-W, BR24L16-W, A1 becomes P1.
*3 In BR24L04-W, A0 becomes PS, and in BR24L08-W and BR24L16-W, A0 becomes P0.

Fig. Difference of each type of slave address

Notes on page write cycle

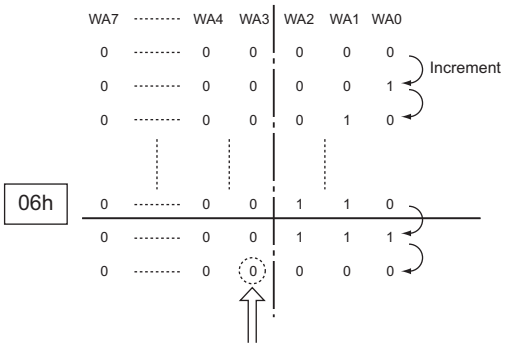
List of numbers of page write

Number of pages	8 Byte	16 Byte	32 Byte
Product number	BR24L01A-W BR24L02-W	BR24L04-W BR24L08-W BR24L16-W	BR24L32-W BR24L64-W

The above numbers are maximum bytes for respective types. Any bytes below these can be written.

In the case of BR24L02-W, 1 page = 8 bytes, but the page write cycle write time is 5ms at maximum for 8byte bulk write.
It does not stand 5ms at maximum x 8 bytes = 40ms (Max.).

○ Internal address increment
Page write mode (in the case of BR24L02-W)



For example, when it is started from address 06h, therefore, increment is made as below,
06h → 07h → 00h → 01h ---, which please note.
* 06h --- 06 in hexadecimal, therefore, 00000110 becomes a binary number.