**Format** Code Type What it does

## Write Commands (Type-0/Type-1/Type-2 Code)

This command will constantly write the value specified by dd 8-bit Constant Write 0aaaaaaa 000000dd

to the address specified by aaaaaaa .

This command will constantly write the value specified by 16-bit Constant Write 1aaaaaaa 0000dddd

dddd to the address specified by aaaaaaa .

This command will constantly write the value specified by 32-bit Constant Write 2aaaaaaa dddddddd

ddddddd to the address specified by aaaaaaa .

This command adds the value specified by **nn** to the value

### **Increment/Decrement Commands (Type-3 Code)**

8-bit Increment 301000nn aaaaaaaa stored at the address aaaaaaaa. This command subtracts the value specified by **nn** to the 8-bit Decrement 302000nn aaaaaaaa value stored at the address aaaaaaaa. This command adds the value specified by **nnnn** to the value 16-bit Increment 3030nnnn aaaaaaaa stored at the address aaaaaaaa. This command subtracts the value specified by **nnnn** to the

16-bit Decrement 3040nnnn aaaaaaaa

value stored at the address aaaaaaaa .

30500000 aaaaaaaa This command adds the value specified by nnnnnnnn to the 32-bit Increment

nnnnnnn 00000000 value stored at the address aaaaaaaa .

30600000 aaaaaaaa This command subtracts the value specified by nnnnnnn to 32-bit Decrement nnnnnnn 00000000 the value stored at the address aaaaaaaa .

## **Multiline Write Commands (Type-4 Code)**

Starting with the address specified by aaaaaaa, this code will write to xxxx addresses. The next address is determined by 32-bit Multi-Address 4aaaaaaa xxxxyyyy incrementing the current address by (yyyy \* 4). The value Write ddddddd 00000000 specified by dddddddd is written to each calculated address.

Also known as a "Patch Code".

#### **Byte Copy Command (Type-5 Code)**

a = Address to copy from 5aaaaaaa nnnnnnnn Copy Bytes b = Address to copy to bbbbbbb 00000000 n = Number of bytes to copy

## Conditional Test Commands / Joker (Type-D Code)

Only when the value at the address specified by aaaaaaa is 16-bit Equal Daaaaaaa 0000dddd equal to the value specified by **dddd** will the next line of code

be executed.

Only when the value at the address specified by aaaaaaa is 16-bit Not Equal

Daaaaaaa 0010dddd not egual to the value specified by dddd will the next line of

code be executed.

Only when the value at the address specified by aaaaaaa is

16-bit Less Than Daaaaaaa 0020dddd less than the value specified by **dddd** will the next line of

code be executed.

Only when the value at the address specified by aaaaaaa is

16-bit Greater Than Daaaaaaa 0030dddd greater than the value specified by dddd will the next line of

code be executed.

## Multiline Conditional Test Commands / Multiline Joker (Type-E Code)

Only when the value at the address specified by aaaaaaa is 16-bit Equal: Multiple Ennndddd Oaaaaaaa equal to the value specified by dddd will the next nnn lines of Skip

code be executed. Otherwise, they will be skipped.

Only when the value at the address specified by aaaaaaa is 16-bit Not Equal:

Ennndddd 1aaaaaaa not equal to the value specified by dddd will the next nnn Multiple Skip lines of code be executed. Otherwise, they will be skipped.

Only when the value at the address specified by aaaaaaa is

16-bit Less Than: Ennndddd 2aaaaaaa less than the value specified by dddd will the next nnn lines Multiple Skip

of code be executed. Otherwise, they will be skipped.

Only when the value at the address specified by aaaaaaa is 16-bit Greater Than:

Ennndddd 3aaaaaaa greater than the value specified by **dddd** will the next **nnn** Multiple Skip

lines of code be executed. Otherwise, they will be skipped.

**Untested Commands** 

Master-Command 8aaaaaaa bbbbbbbb ccccccc 00000000 One Time Activator Aaaaaaaa 000000xx

v = delay value (32 bit)

Delay putting on all following codes for v cycles; effect varies

between games.

Time Command B0000000 nnnnnnnn To act on all codes, put it at the top of the code list!

B0000000 10000000

Loop is executed 0x10000000 times.

aaaaaaa = address (25 bit) vvvvvvvv = value (32 bit)

All following codes will be executed only, if 32-bit value at given address, aaaaaaa, is equal to given value, vvvvvvvv. Otherwise, they will be skipped. Can be used to exit the code

sequence at any point.

To act on all codes (like traditional "Auto Activation"), put it at

the top of the code list!

Example:

C0153880 03E00008

If the 32-bit value 0x03E00008 is at the address 0x00153880,

then activate all following codes. Otherwise, do nothing.

Master-Command Faaaaaaa bbbbbbbb

Caaaaaaa vvvvvvvv

Code Stopper

# CB7+

Than: Multiple

Skip

8-bit write

32-bit write

Extra pointer line 3rd line

All above codes also work on CB7+ here are what are added to it some of below codes may work on other devices and lower version of CB but are untested on CB1-6.

Format What it does Code Type

Increment/Decrement Commands

This command adds the value specified by **nn** to the value stored at the 300000nn aaaaaaaa 8-bit Increment

address aaaaaaaa .

This command subtracts the value specified by **nn** to the value stored at 8-bit Decrement 301000nn aaaaaaaa

the address aaaaaaaa .

This command adds the value specified by nnnn to the value stored at 16-bit Increment 3020nnnn aaaaaaaa

the address aaaaaaaa .

This command subtracts the value specified by nnnn to the value stored 16-bit Decrement 3030nnnn aaaaaaaa

at the address aaaaaaaa .

30400000 aaaaaaaa This command adds the value specified by **nnnnnnn** to the value 32-bit Increment

nnnnnnn 00000000 stored at the address aaaaaaaa .

32-bit Decrement 30500000 aaaaaaaaa nnnnnnnn 000000000 This command subtracts the value specified by **nnnnnnn** to the value

stored at the address aaaaaaaa .

**Test Commands** 

A = address to check from

T = type, 0 = equal to, 1 = not equal to, 16-bit Greater

2 = Less Than, 3 = Greater Than

Ezyyvvvv taaaaaaa V = 16 or 8 bit value

YY = # of codes to skip if condition is false

Z = 0 = 16-bit, 1 = 8-bit

Pointer Commands (Type 6 Code)

6aaaaaaa vyyyyyyy

a = address to load 32-bit base from (25 bit) 6aaaaaaa 000000vv v = value to store at base + offset (8/16/32 bit)

0000nnnn iiiiiiii n = number of times to point (16 bit)

> i = 32-bit offset to add to base (n = 1) a = address to load 32-bit base from (25 bit)

6aaaaaaa 0000vvvv v = value to store at base + offset (8/16/32 bit)16-bit write 0001nnnn iiiiiiii n = number of times to point (16 bit)

i = 32-bit offset to add to base (n = 1)

a = address to load 32-bit base from (25 bit) v = value to store at base + offset (8/16/32 bit)

0002nnnn iiiiiiii n = number of times to point (16 bit)

i = 32-bit offset to add to base (n = 1)

Example 2:

602829D8 FFFFFFF 00020002 0000071C 0000FB20 00000000

- loads base at address 0x002829D8, say base is 0x00290000

- adds offset 0x0000071C to make address 0x0029071C

- loads base at address 0x0029071C, say base is 0x002A0000 - adds offset 0x0000FB20 to make address 0x002AFB20

- stores 32-bit value 0xFFFFFFF to address 0x002AFB20

Note that execution stops, if (base & 0x3FFFFFFC) == 0.

**Boolean Commands (Code type 7)** 

8-bit OR 7aaaaaaa 000000vv a = address (25 bit) 7aaaaaaa 000200vv 8-bit AND v = value (8/16 bit)

Performs a bitwise logical operation between given value, v, and the 8-bit XOR 7aaaaaaa 000400vv

value stored at

16-bit OR 7aaaaaaa 0001vvvv given address, a. (Example:) 16-bit AND 7aaaaaaa 0003vvvv 7048D402 005014A9

16-bit XOR 7aaaaaaa 0005vvvv 0x14A9 is XORed to the 16-bit value at address 0x0048D402.

Miscellaneous Commands

a = Address to copy from 5aaaaaaa nnnnnnnn Copy Bytes b = Address to copy to bbbbbbb 00000000

n = Number of bytes to copy

32-bit Multi-Starting with the address specified by aaaaaaa, this code will write to 4aaaaaaa xxxxyyyy

Address Write ddddddd 00000000 xxxx addresses. The next address is determined by incrementing the current address by (yyyy \* 4). The value specified by dddddddd is written to each calculated address. Also known as a "Patch Code." Same As above but the I = size of value step (32 bit) as in how much it will count up on each address..

Example

4099A20C 00060002

00000000 00100000

- writes 0x00000000 to 0x0099A20C - writes 0x00100000 to 0x0099A214

- writes 0x00200000 to 0x0099A21C

- writes 0x00300000 to 0x0099A224

- writes 0x00400000 to 0x0099A22C

- writes 0x00500000 to 0x0099A234

32-bit Multi-Address Write/Value increase (GS/CB6+)

ddddddd IIIIIII

4aaaaaaa xxxxyyyy