



# V2 BANCHO NO AIBO

## Banchou's partner



### Main features of Banchou no Aibou V2

This is a compatible board for the genuine SHARP SCSI board "CZ-6BS1". In addition to the standard internal ROM, FLASH ROM and PROM can be used, so you can select and use the genuine ROM or the latest SCSI ROM extracted with the emulator "XM6". An external power supply is provided for hot start, so startup can be performed without putting a strain on the main unit's power supply.



### Please read before use to ensure safe use.

This device series is intended for connection to the X68000 series expansion bus slot. Do not connect any interface other than the X68000 series expansion bus slot. Voltage differences and other factors may cause damage to this device and your computer. When connecting to the bus slot, take care not to get your hair or beard caught or your fingers pinched. We are not responsible for any hair loss. This device is not edible, so do not put it in your mouth. If you accidentally eat this device, consult your doctor immediately. Keep out of reach of small children. Using this device in high temperatures or condensation may cause damage or shorten the device's lifespan. To ensure long-term use, keep it in a cool place. If the device catches fire, emits smoke, or emits an unusual odor, immediately stop using it. Do not use this device in any life-threatening device, such as medical equipment. This could lead to a worst-case scenario. Due to the nature of this device, which is intended for use with classic computers, we are not responsible for any damage to the computer that occurs when using this device. If a computer malfunction occurs after connecting this device, it is possible that something else has malfunctioned at the same time. When connecting or disconnecting this device, please hold the end of the connector firmly and handle it gently. It is best to handle this device with care, as if it were a sore.



In addition to this machine, you will need to prepare the following items:



X68000 SASI model

Conversion Banchou etc.  
SCSI equipment

Motivation

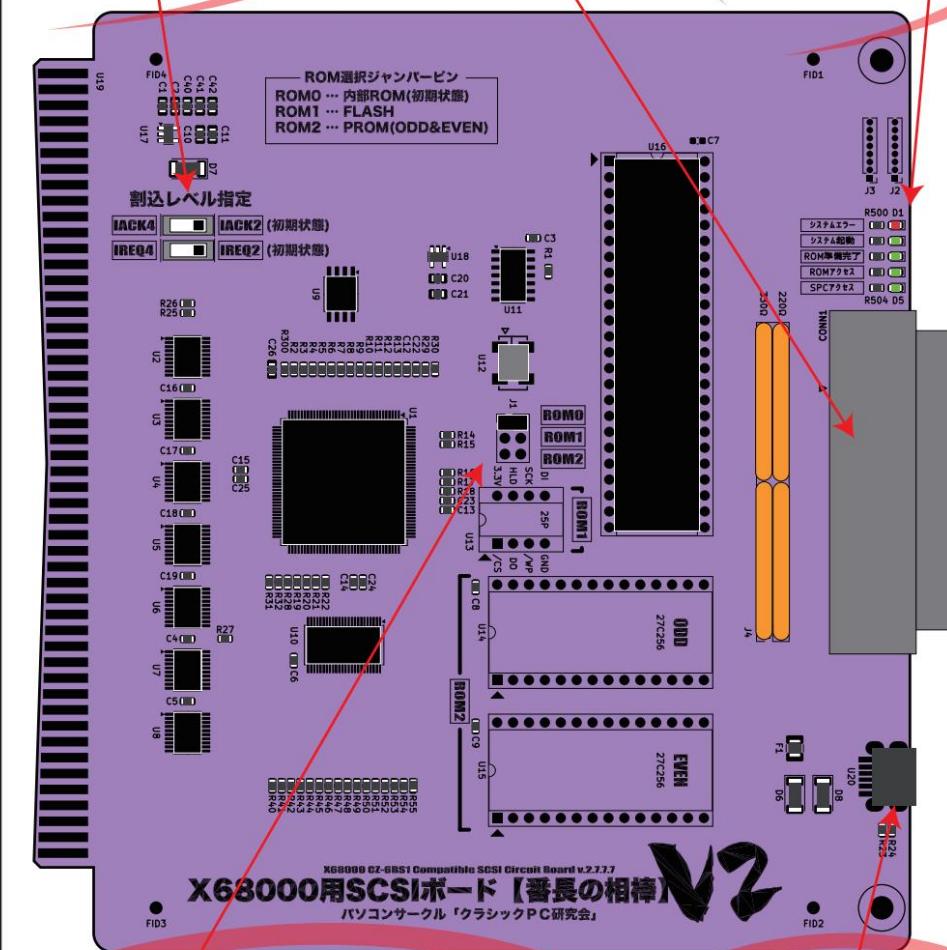
Unit size (150mm x 140mm)

#### Interrupt Level Switch

Can be used at levels 2/4. Normally, use IACK2/IREQ2.

Amphenol half-pitch SCSI connectors (not skewers) are available.

LED for checking operation. For details, see the next page. See About LEDs.



#### ROM selection jumper pin

By inserting a jumper pin into ROM0, the device will boot from the ROM written inside the FPGA chip.

By inserting a jumper pin into ROM1, the ROM1 Boot from FLASH ROM.

By inserting a jumper pin into ROM2, the it boots from PROM.

#### Power Input

If you do not cold start, Please input external power via the USB C connector.



## How to use "Bancho's Partner V2" by connecting a Conversion Bancho (HDD)

The general way to use "Bancho no Aibou V2" is to **insert it into the expansion slot, connect the HDD with a SCSI cable, and boot it up**, just like the original SCSI board (CZ-6BS1).

1. Insert "Bancho no Aibou V2" into the X68000 expansion bus slot. Make sure to push it all the way in.

ÿ Connect an Amphenol half-pitch SCSI cable to the SCSI connector on the "Bancho no Aibou V2" and connect a SCSI device such as a Conversion Bancho or HDD to the other end of the cable.

3. Start HumanOS Ver.3 from the FDD or SASI and enter the FORMAT command.

When the FORMAT command starts, select "SCSI Devices" and select the name of the device you want to format. Select [Initialize Device] ÿ press the [Y] button on the keyboard ÿ [Reserve Space], enter the HDD capacity in [Specify Capacity], set [System Transfer: Yes], select [Execute] and format. Select [Exit] and press [Y] on the keyboard to restart the computer.

ÿ After rebooting, start HumanOS Ver.3 from the FDD or SASI again, and then start the SWITCH.X command. From the BOOT item of the SWITCH command, select the device you formatted.

Select an ID (SCSI0 to SCSI6), select the [Exit] item, and press [Y] (register and exit) on the keyboard to end the SWITCH command. When the HumanOS command input screen appears, press the reset button to reset the computer.

ÿ After resetting, the "Bancho no Aibou V2" startup screen will be displayed, and HumanOS will start from the device specified in the SWITCH command in ÿ above.



## External power supply (USB-C)

Normally, an external power supply is not required, but due to differences in overclocking or power supply start-up timing, the "Bancho no Aibou V2" system may not be able to start up in time with the computer's startup, resulting in the device not being recognized. Supplying power to "Bancho no Aibou V2" from an external power source beforehand, and then starting up the computer, may allow stable use. If "Bancho no Aibou V2" is not recognized, try supplying power via a USB-C cable.



## About LED lamps

Banchou no Aibou V2 is equipped with five LED lamps: [System Error], [System Boot], [ROM Ready], [ROM Access], and [SPC Access]. The functions of these LED lamps are explained below.

[System Error] LED: This LED will light up red if there is a problem starting up the FPGA IC used in "Bancho no Aibou V2." When this LED is lit, it is likely that "Bancho no Aibou V2" is experiencing a fatal malfunction.

[System startup] LED...When power is supplied and the "Bancho no Aibou V2" system starts up, the green LED lights up. If the LED does not light up even when the PC is turned on and the expansion slot is inserted, it may be that the power is not being supplied from the PC or that the unit is broken.

[ROM ready]...ROM1 (FLASH ROM) is selected and set in the ROM1 socket. When data is successfully read from ROM, the green LED will light up. If the LED does not light up even though ROM1 is selected, it may be that data has not been read successfully from ROM1.

[ROM Access]...Lights up when the SCSI ROM area is accessed from the X68000.

[SPC Access]...Lights up when there is access to SPC (SCSI Protocol) from the X68000. Lights up when accessing a SCSI device.



## How to select a SCSI ROM

"Banco no Aibou V2" allows you to select the boot ROM from three types: internal ROM, FLASH ROM, and PROM, by using the "ROM0 / ROM1 / ROM2" jumpers on the board.

ROM0: By selecting internal ROM (initial state), you can start up from the internal ROM in the FPGA of "Banco no Aibou V2".

ROM1: By installing a flash ROM in the socket and selecting it, you can boot from the flash ROM. 25 series (M25P16/W25Q80, etc.) 8-pin flash ROM can be used.

ROM2: By selecting EEPROM/EPROM, you can boot from PROM. PROMs such as the 27 series can be used. You can use this when you want to boot from the original ROM. Be careful not to confuse ODD/EVEN.



## About trouble

This product is simple to use, just insert it into the expansion slot, connect the cable, and start it from the device, but it is also difficult to predict what problems may occur. If you have tried various things and it still does not work, please contact our research group.

Q. I started the FORMAT command but there is no "SCSI device".

If you are using HumanOS Ver. 2, the SCSI device will not appear, so please use Ver. 3. Also, if you are using HumanOS Ver. 3 and the "SCSI device" does not appear, it may be that Banchou no Aibou V2 is not recognized by your computer. In this case, try connecting an external power source via the USB-C connector.

Q. After formatting, HumanOS does not start.

A In the BOOT item of the SWITCH command, review the setting of the ID (SCSI0-SCSI6) you want to boot from. please.

