

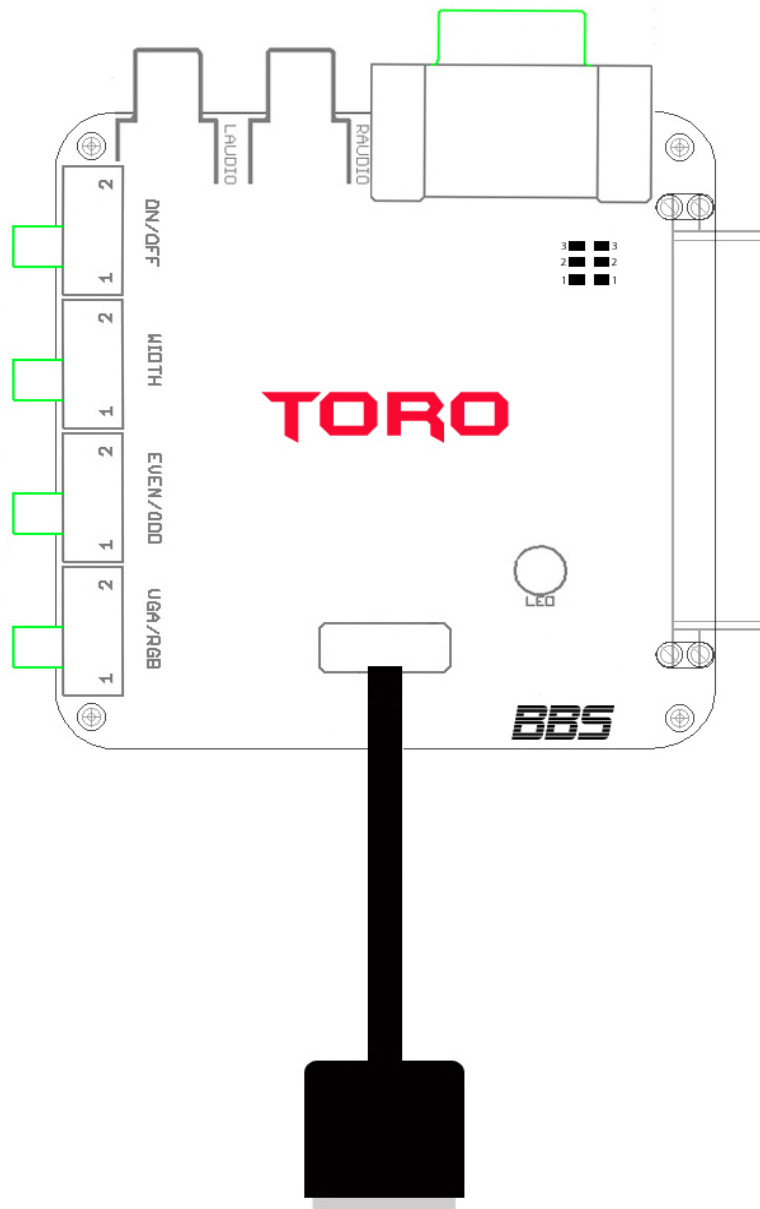
# TORO

dual video box

## ADVANCED VIDEO BOX FOR THE SEGA DREAMCAST

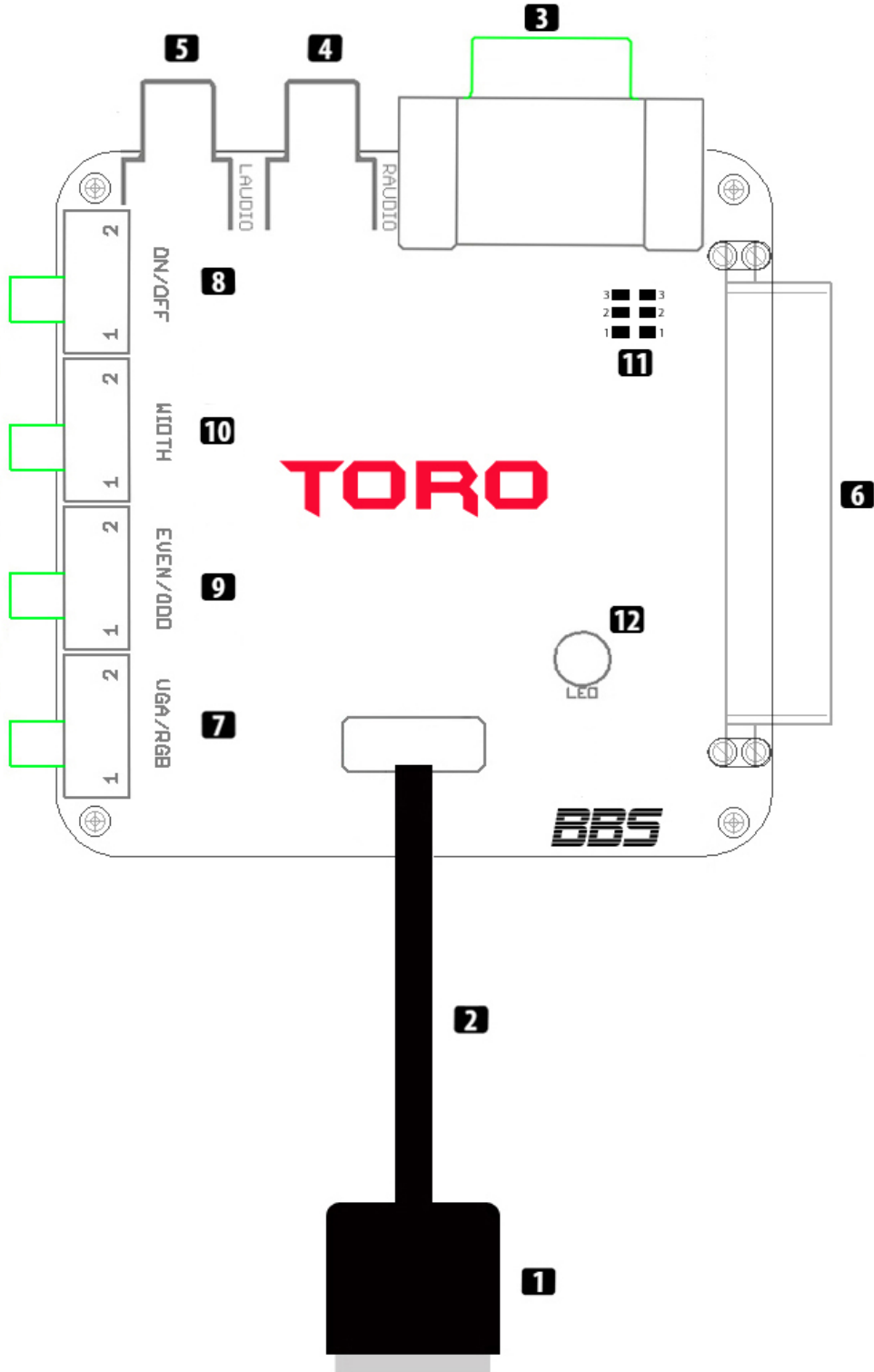
### INSTRUCTION MANUAL

Thank you very much for purchasing this product and supporting the legendary Dreamcast console. Please read this manual before use and retain it for future reference.



# Introduction

Toro is a Dreamcast video box with multiple video outputs. It has both VGA and Euro Scart connectors to output RGBS(composite sync) and RGBHV for maximum compatibility with displays and upscalers. So you can play both RGB Scart and VGA compatible games. Like the Hanzo it's a built-in Scanline Generator to add scanlines. Basically it's a combination of Hanzo and Kenzei with less features like RCA RGBS outputs, scanline thickness selection, scart/rca video pass-through function.



This product is designed and manufactured by [Team Beharbros](#), Dreamcast is a trademark of Sega Enterprises Ltd.

## Specifications

1. Supports resolutions up to 480i/480p.
2. RGB/VGA switch to select the 15khz RGB mode or the 31khz VGA mode.
3. VGA female connector (HD15) for connecting to your video display.
4. Euro Scart connector for connecting to your TV or upscaler. Supports 480i & 480p.
5. High quality Stereo RCA audio output jacks for plugging to a Hi-Fi system(amplifier) or TV.
6. Scanliner ON/OFF switch to turn it on or off.
7. Scanliner Even/Odd switch for selecting even or odd scanlines.
8. Scanliner Width switch for selecting thin or thick scanlines for a resolution like 640x480(default) or 1024x768 when upscaling.
9. Sync combiner circuit to output CSYNC (composite sync) through Scart or VGA connector.
10. Push button to select video sync output mode for the VGA: H&V SYNCs or CSYNC alone.
11. Luminosity adjustment as a bonus feature.
12. Blue power led.
13. High quality custom made Dreamcast audio/video cable.
14. Durable plexi case with laser etched TORO logo.
15. Small form factor: 2.9x2.9x0.78 inches or 7.5x7.5x2 cms, around 100 grams or 3.5 ounces.

## Parts

\* Parts list as figured on the 2nd page.

1. Dreamcast AV plug
2. Dreamcast AV cable
3. Female VGA port (HD15) for video output, RGBHV or RGBS
4. Right Audio output jack.
5. Left Audio output jack.
6. Euro Scart connector for audio/video output, RGBS (with CSYNC)
7. VGA/RGB mode select switch. (15/31khz)
8. Scanliner feature ON/OFF switch to turn it on or off.
9. Scanliner Even/Odd Select switch for selecting even or odd scanlines.
10. Scanliner Width Select switch for selecting thin or thick scanlines.
11. Jumper setting for video sync output mode selection of the VGA connector. (Position 1-2 for RGBHV(default) or position 2-3 for RGBS)
12. Blue power led

## **PRIMARY INSTRUCTIONS**

- 1. Make sure your TV and Dreamcast is turned off**
- 2. Connect your Toro's Dreamcast AV plug (1) to your console's AV port on the back.**
- 3. Connect your VGA cable (male to male, not included) between your Toro (3) and your display (plasma, LCD, monitor etc.) You can also plug Toro to your upscaler or TV via Euro Scart connector. Scart can deliver both video and stereo audio signals. Standard TVs don't support 480p through Scart, so you need to set it to 480i (RGB mode) before using. You can enjoy the 480p / RGBS mode with upscalers like the XRGB Mini.**
- 4. Connect your RCA audio cables to your Toro (4 & 5). You can get stereo sound from your TV or an amplifier for a better gaming experience. You should turn off your stereo system (amplifier) before connecting your cables to eliminate the risk of damaging your speakers.**
- 5. Adjust the settings (RGB, sync mode/scanlines) you prefer by the help of switches.**
- 6. Turn on your TV and Dreamcast (amplifier too) and enjoy your VGA box with different settings.**

## **SETTINGS**

### **RGB MODE**

RGB mode can be set by the help of RGB/VGA Switch (7). When it's in position 1, it displays 15khz RGB video, or 480i. If you change it to position 2, it will display 31khz VGA video or 480p. Some games are not compatible with the VGA mode, and the console checks the type of cable plugged while booting, so it refuses to boot if the game doesn't support the VGA mode. To eliminate this problem you can trick the console while booting(after the beep sound) by switching to position 2 (VGA mode). This can work on most of the games, however some games still may not support it, please check the incompatibility list on the web.

### **SCANLINES ON/OFF**

Scanliner function can be turned on or off by the ON/OFF switch (8). When it's in position 2, scanlines will be displayed, when it's switched to position 1, scanlines won't be displayed. This feature can be used on the fly, however it's recommended to do it while the console is turned off.

### **SCANLINES WIDTH SELECT**

It's possible to change the width of the scanlines, position 2 is the default mode which is thinner scanlines (single line), position 1 is for the thicker scanlines (double lines). When using your Toro with upscalers, position 1 can be better for higher resolution(1024x768).

### **EVEN / ODD SCANLINES**

EVEN/ODD switch (9) is used for selecting either even scanlines to be displayed or odd ones according to your preferences.

### **VIDEO SYNC MODE SELECTION**

Sync mode on the VGA connector can be selected by a push button (11) on the board. You need to remove the 4 screws on top cover to be able to reach this button. You can choose CSYNC (for RGBS) by pushing the button, when it latches, it will output CSYNC. When you push it again, by releasing the button, it will output RGBHV through the VGA connector.

### **BONUS MODE : LUMINOSITY ADJUSTMENT**

As a bonus feature, while the EVEN/ODD switch is set to position 1, and the scanlines are turned off (position 1) Toro can display a darker image without scanlines and when the EVEN/ODD switch is set to position 2 again, it will display in its normal brightness.

## WARRANTY

All our products are handmade using high quality imported components. Every component is tested multiple times and chosen carefully for its longevity. When it's totally assembled and ready to use, we test it again for enough time before shipping it. However sometimes malfunctions can be occurred because of the workmanship or human errors by usage. We warrant our products to be free of defects in materials and workmanship that result in failure during normal usage for 1 year. In case of a malfunction, we advise you to consult us before trying to repair or replace any component. You can send it back for repair or replacement. However you are free to modify your Toro, this doesn't end its warranty. After this duration we will still keep standing back of our products, even they are discontinued. Because your satisfaction is too important for us.

## THANKS

SEGA, for creating this awesome console!

All the Dreamcast scene supporting this legendary console from the day one : sites, modders, everyone...

Our friends and family for always believing and supporting us.



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