Multisystem Time Base Corrector with Genlock (CTB-100G)



Operation Manual

Introduction

The unit is a Multisystem Time Base Corrector with Genlock that automatically processes any video input signal- NTSC, NTSC 4.43, PAL, PAL M, PAL N and SECAM.

Precautions

- 1. Do not expose this product to direct sunlight.
- 2. Keep the unit away from radiator, heat sources and magnetic field.
- 3. Do not place it in very dusty or humid locations.
- 4. Use this unit in a horizontal position only.
- 5. Do not put heavy objects on top of the converter.
- 6. Put the unit in an open space that has good ventilation.
- 7. Keep the unit away from TV or other electronic equipment if the unit is acting abnormally.
- 8. Unplug the unit from the power supply when it is not to be used for a long period of time

Features

- Restores distorted or de-shaped vertical and horizontal sync. and colour burst.
- Eliminates picture jittering and ensures a stable image on screen through Dual-field full-frame reconstruction.
- Corrects time error of video that is normally associated with VCR source.
- Adjust Brightness, Colour, Tint, Sharpness and Contrast to improve video picture.
- A true multisystem Time Base Corrector automatically processes video input of any systems-NTSC, NTSC 4.43, PAL, PAL M, PAL N, SECAM.
- Digital comb filter for input Y/C separation offers best output quality.
- Built-in automatic gain control (AGC) ensures 1 Vp-p output signal (input level ranges from 0.5 Vp-p to 2 Vp-p).
- Automatically sending out colour bar patterns when there is no video signal presents on the input.
- Built-in TBC/Genlock capability for synchronizing multiple a synchronous video sources.
- Ideal for use in rectifying any video errors and abnormal picture.

Operation Controls and Functions

Front Panel



Input video system indicator- Auto, N3, N4, PAL, PAL M, PAL N, SECAM.

- 1. Illuminates when input auto detection mode is selected.
- 2. Illuminates when input system is set to NTSC 3.58.
- 3. Illuminates when input system is set to NTSC 4.43.
- 4. Illuminates when input system is set to PAL.
- 5. Illuminates when input system is set to PAL M.
- 6. Illuminates when input system is set to PAL N.
- 7. Illuminates when input system is set to SECAM.
- Note- When in auto detection mode one of the system indicator will also illuminate to show video system of the input.

Picture adjustment controls-

- 1. **Select-** Press this button repeatedly to choose the picture adjustment you desire. Each depression of the button will toggle through adjustment controls as follows-System- Contrast- Brightness-Colour-Tint-Sharpness.
- 2. + **Button-** Press the button for increasing picture effect value.
- 3. Button- Press the button for decreasing picture effect value.
- 4. **Reset-** Press "Reset" for over 3 seconds, all controls will be reset to their default values.

Auto/Manual detection mode: Press the "Select" button to choose "System" function on the top row LEDs. And then press reset button to switch between Auto and Manual detection mode for the input.

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Phone +61 249689313 Fax +61 249689314

Picture adjustment indicators-

- 1. **System indicator-** When system adjustment in selected, use Reset button to choose auto or manual input detection. When manual detection is selected, use the + and keys to select the output system you want.
- 2. **Contrast indicator-** when it lights up, use + and buttons to adjust picture contrast level.
- 3. **Brightness indicator-** When it lights up, use the + and buttons to adjust the level of picture brightness.
- 4. **Colour indicator-** When it lights up, use the + and buttons to adjust the level of picture colour.
- 5. **Tint indicator-** When it lights up, use the + and buttons to adjust the tint level of the picture (NTSC only).
- 6. **Sharpness indicator-**When it lights up, use the + and buttons to adjust the level of sharpness of the picture.



- 1. **Video/S-Video Input Port-** This is the video input port. There is one Video and one S-Video on the input. The unit will automatically detect the video input when either one of the input is connected. When both inputs are connected, S-video input has the priority
- 2. **Video/S-Video Output-** This is the video output port. 2 different formats of video Out, Composite and S-Video.
- 3. **DC 15V 600mA Centre Negative-** This is the power supply input port.
- 4. **Genlock Input/Genlock Output-** The TBC/Genlock function is where the video input is time base corrected and genlocked to the sync of another video (Genlock In), therefore making the two video output synchronized.

The full frame processing also reconstructs the sync burst and timing of the video input and provides an error-free video output.

The video system of the video input and genlock input must be the same; if they are different the output will be abnormal.

Genlock Out is a loop-through of Genlock Input, which made possible the synchronization between multiple video sources by connecting Genlock Out to the Genlock In of the next unit, and repeating it.

You can synchronize as many video sources as you like.

* **75-ohm connection and installation load switch**: When Genlock Out is not connected to the Genlock In of another unit, set the switch to On. Set to off if it is connected to another unit.

Connection and Installation

The AC adaptor power unit should not be plugged into a wall outlet until all connections are complete.

- Using your connector cable connect the Video/S-Video output port (Number 2 on the rear panel) to the device (TV or Video recorder). For Composite Video, use a composite RCA connector cable to connect the converter to your video device. For S-Video use a 4-pin mini DIN connector cable to connect the converter to your video device.
- Using your connector cable connect the Video/S-Video input port (Number 1 on the rear panel) to the device (Video cassette recorder, satellite receiver or camcorder). For Composite Video, use a composite RCA connector cable to connect the converter to your video device. For S-Video use a 4-pin mini DIN connector cable to connect the converter to your video device.
- You can synchronize as many video sources as you like. Connect the Genlock Out to the Genlock In of the next unit (Number 4 on the rear panel).
- Adjust the system, brightness, contrast, colour, tint and sharpness to the level desired using the + and keys.
- Once all connections are complete please connect the power supply provided to the power socket.

Specifications

Specifications	
Input TV Systems	NTSC 3.58, NTSC 4.43, PAL, PAL M,
	PAL N and SECAM.
Connection Terminals	Video Input- 1; S-Video Input- 1
	Video Output-1; S-Video Output-1
	Genlock Input- 1 Composite
	Genlock Output- 1 Composite
Sampling Frequency	Y: 13.5 MHz; R-Y: 6.75 MHz; B-Y: 6.75
	MHz
Digital Code Bit	Y: 8 Bits; R-Y: 8 Bits; B-Y: 8 Bits
Processing Controls	Contrast, Bright, Colour, Tint and
	Sharpness.
Connection Range	Full Frame TBC.
Frequency Response	400 lines.
S/N Ratio	50 dB.
Power Supply	DC 15V 600mA Centre Negative
Dimensions	200 (W) x 140 (D) x 43 (H) mm
Weight	1 kg
Memory	6M Bits