Dual Channel Time Base Corrector With Chroma Key
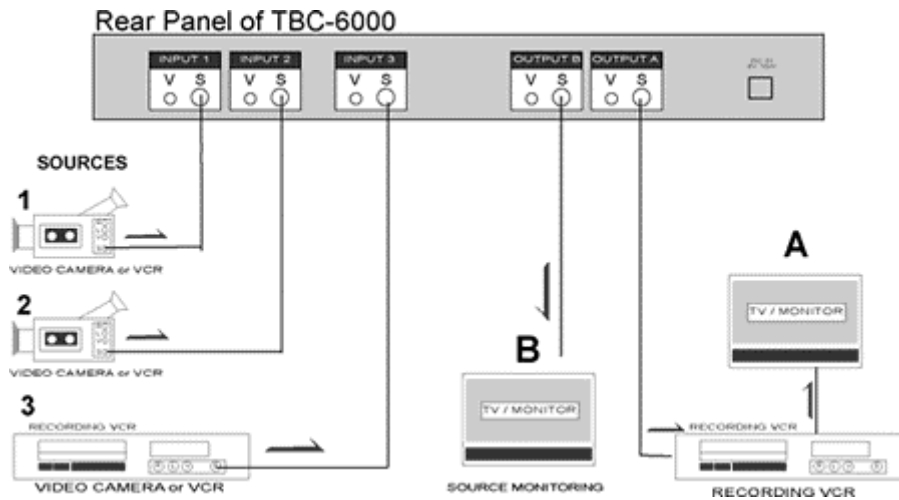# TBC-6000

Instruction Manual

Professional Time Base Corrector (TBC) with Broadcast-quality Features:

- Three inputs to two outputs matrix switcher

- 16 color chroma key with level calibration

- Internal dual channel frame synchronization with full frame memory

- Two channel color bar pattern Generator

- Two channel digital color processor

- Wide bandwidth, 8-bit video resolution

- YUV 4:2:2 sampling rate

- Compatible with VHS, VHS-C, S-VHS, S-VHS-C, Video 8, Hi8 & Digital 8

Installation Diagram:

The TBC-6000 provides a Chroma Effect for two camera sources and a background video or one camera with two background sources. The dual channel TBC allows you to cleanly switch between sources with no distortion or noise. You can easily adjust your chroma key effect by using the key color and key level switches. You can also use the Datavideo SE-200 Pro Integrated Editing Center for the A/B roll, A/B dissolve and Chroma Key Effects.

Calibration of Chroma Key Effect

1. Install the equipment as shown on the above diagram
2. Power on all equipment and playback the source video
3. Select the source on "A" output for Chroma key effect
4. Select the source on "B" output for background video
5. Select the Chroma Key Effect by pushing on the "CHROMA" key button, the Chroma Key LED will light when the Chroma Key Effect is activated
6. Adjust the Chroma-level again by pushing the "+" level key to maximum level
7. Select the key color by pushing the "+" or "-" key to optimize the key color
8. Adjust the Chroma level again by pushing the "+" or "-" level to optimize the key effect

Note: To ensure the optimization of the Chroma key effect, please note the background key color shown on the TV screen on source "A" output that should be the same as actual color. If not, please adjust the "White Balance" of your source video camera to make background key color shown on the TV screen is same as the actual color.

Back Panel Controls:

1. Composite video input jacks for Source A to D.

2. S-VHS video input jacks for Source A to D.

3. S-VHS/Composite video input select switches for Source A to D.

4. Source A to D monitor output jacks (for previewing Source A to D).

5. Composite video output jacks for source A to D.

6. S-VHS video output jacks for Source A to D.

7. DC 9V power input jack.

Front Panel Controls:

1. POWER ON/OFF SWITCH
Turns main power to TBC-6000 on and off.

2A. OUTPUT A SOURCE SWITCHES
Selects one of three source channels 1 to 3 for output A. With "Chroma Key" effect that the background color of selected source will be keyed out and overlay onto the video source which is selected by OUTPUT B switches.

2B. OUTPUT B SOURCE SWITCHES
Selects one of three source channels 1 to 3 for output B. With "Chroma Key" effect that selected source will be the background video for output A.

The source LED will light up when the source is selected.

3. CHROMA KEY SWITCH
Press this key to activate the "Chroma Key" Effect.

4. COLOR SWITCHES
(+ and -) select the key color from 16 colors.

5. LEVEL SWITCHES
(+ and -) adjust the key level from 15 step level.

NOTE: To calibrate a chroma key effect, please Select the color you wish to key out then Adjust the chroma key level to optimize Chroma key effect.

6. PATTERN SWITCH
The TBC-6000 can generate color bar test pattern on four source channels A to D. To generate a test pattern, press the Pattern key and hold it for 2 seconds. To remove test pattern, press the pattern switch again.

7. GEN-LOCK RESET SWITCH
If color in the video image appears to be incorrect when you first turn on the TBC-6000 power, press this switch and hold it for 2 seconds to reset general-lock and correct the color.

8. STILL SWITCH
Pressing this switch "freezes" the source video image.

9. BYPASS SWITCH
Pressing this switch bypasses all color processing adjustments made to the source video image.

10. COLOR SWITCHES
(+/-) adjust the Chroma level of the source video.

11. CONTRAST SWITCHES
(+ and -) adjust the luminance level of the source video.

12. BRIGHTNESS SWITCHES
(+ and -) adjust the black level of the source video.

13. TINT SWITCHES
(+ and -) adjust the Chroma Tint of the source video. (Active only with the NTSC video system)

NOTE: The LED level indicators will light up as you make adjustments to key color, key level color, contrast, brightness, and tint. These LED's will go out in a few seconds after you have finished making adjustments.

Specifications:

INPUTS

3 S-VHS Sources 1 to 3   Y/C in: 4--pin 75 ohm DIN connector
3 Composite Sources 1 to 3   1.0 Vp-p 75 ohm RCA connector

OUTPUTS

2 S-VHS Sources A to B   Y/C out: 4—pin 75 ohm DIN connector
2 Composite Video Sources A to B   1.0 Vp-p 75 ohm RCA connector

CONTROLS

Brightness   +/- 10%
Contrast   +/- 3dB
Color   +/- 3dB
Tint (only available with NTSC system)   +/- 5°
Frequency Response (S input)   4.5 MHz +/-3dB
DG, DP   +/- 2%, 1°
S/N Ratio   >50 dB
Chroma Key Color   16 Colors
Chroma Key Level   15 Steps

PROCESSING

Still   Field
Component   8-Bit, 4:2:2; Y: 13.5 MHz
Correction Range   Two Channel Full Frame TBC
Pattern Generator   Color bar pattern

GENERAL

Power   DC 9V 12W AC Adaptor (included)
Ambient Temperature   32° - 131° F(0° - 55° C)
Ambient Humidity   Less than 90%
Dimensions   420 (W) x 240 (D) x 60(H) mm
Weight   3.7 Kg.
Accessories   S-Video/S-Video Cables (included)