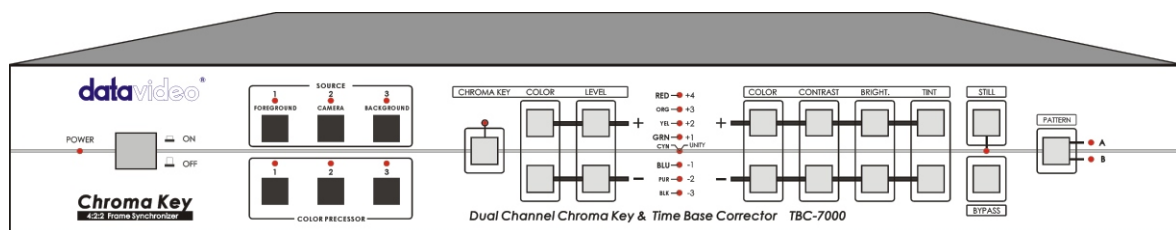


datavideo®

INSTRUCTION MANUAL

Dual Layer Chroma Key and Time Base Corrector

TBC-7000

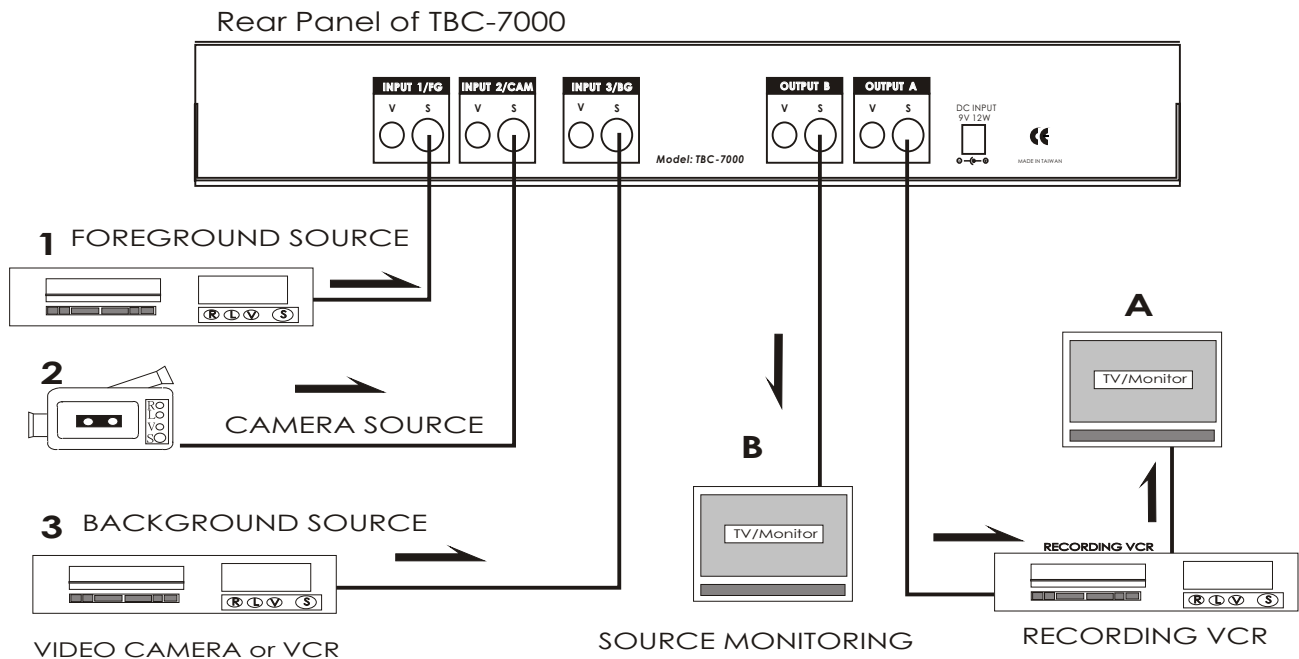


Dual Layer Chroma Key with Foreground and Background Video Layers

- It is easy to create foreground and, background video layers with chroma key
- 16 color chroma key with level calibration. All the settings will be memorized in TBC-7000
- 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, Hi 8 and Digital 8 format

<http://www.datavideo-tek.com>

Installation Diagram



The TBC-7000 provides a Chroma Effect for two background video sources and one camera source. The dual channel chroma key allows you to create foreground and background videos at the same time. You can easily adjust your chroma key effect by using the key color and key level switches. All settings are memorized in TBC-7000. The TBC 7000 remembers its' last set up even if the power is turned off.

Calibration of Chroma Key Effect

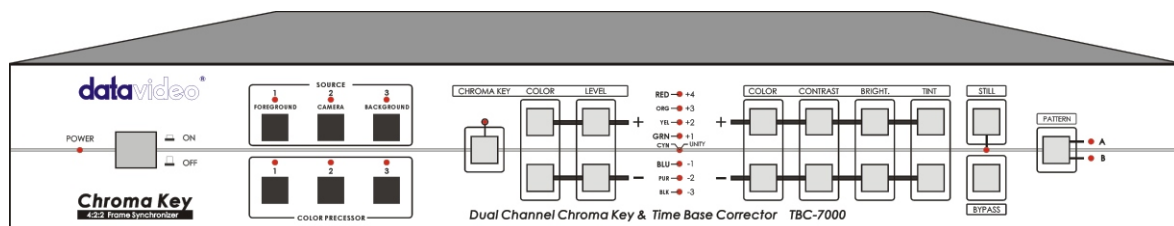
1. Install the equipment as shown on the above diagram.
2. Power on all equipment and playback the source video.
3. Select the source on "3" Background video input and turn off of video input "1" and "2".
4. Select the source on "3" in Color Processor mode to color correct the background video
5. Select the source "2" and "3" ON. You will see the video source "2" camera video on the video display.
6. Select the source on "2" in Color Processor mode to color correct the camera video.
7. 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.
8. Adjust the Chroma Key level by pushing the "+" level key to maximum level.
9. Select the key color by pushing the "+" or "-" key to optimize the key color.
10. Adjust the Chroma Key level again by pushing the "+" or "-" level to optimize the key effect.
11. Select the source "1", "2" and "3" ON. You shall see the video source "1" camera video on the video display.
12. Select the source on "1" in Color Processor mode to color correct the foreground video.
13. Repeat the procedure from 8 to 10 for source "1" Foreground video as above. Adjust the Chroma Key level by pushing the "+" level key to maximum level.
14. Select the key color by pushing the "+" or "-" key to optimize the key color.
15. Adjust the Chroma Key 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 of source "2" camera input that should be the same as actual color. If not, please adjust the "White Balance" of your source video camera to make the background key color shown on the TV screen is same as the actual color.

Back Panel Controls:

1. **Background Video Input:**
The video source for the background video onto the lower layer video.
2. **Camera Video Input:**
The video source with key color background to be inserted between the background and foreground video sources.
3. **Foreground Video Input:**
The video source with key color to be put over the top layer of camera and background videos.
4. **Video Output A:**
Composite and S(Y/C) video output jacks with key effects. Connect to VCR or VDR (Video Disk Recorder such as Datavideo's VDR-3000 or MP-3000).
5. **Video Output B:**
Composite and S(Y/C) video output jacks with key effects. Connect to TV/Monitor for monitoring.
6. **DC 9V 12W power input jack.**

Front Panel Controls:



1. POWER ON/OFF SWITCH

Turns main power to TBC-7000 on and off.

2. SOURCE SWITCHES

Switch on and off the three input sources: foreground, background and camera video Input. With the chroma key effect, a 'video hole' determined by the color settings for source one will be cut and filled with video from source two and then overlaid onto the third video Background layer.

3. COLOR PROCESSOR SWITCHES

Selects one of three source channels 1, 2 or 3 to adjust the level of color, contrast, brightness, etc. The source LED will light up when a source is selected.

4. CHROMA KEY SWITCH

Press this key to activate the "Chroma Key" Effect.

5. COLOR SWITCHES (+ and -)

select the key color from 16 colors.

6. 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 removing the key color.

7. PATTERN SWITCH

The TBC-7000 can generate two types of color bar test patterns. To generate a test pattern, press The "Pattern" switch. The pattern-A 8 color bar will be shown on the video display. To generate Pattern-B, press the Pattern switch again to select pattern-B 16 color bar. Press the pattern switch again to remove the pattern.

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 (+ and -)

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 LEDs will go out in a few seconds after you have finished making adjustments.

Specifications:

INPUTS

3 S-VHS Sources 1 to 3
3 Composite Sources 1 to 3

Y/C in: 4-pin 75 ohm DIN connector
1.0 Vp-p 75 ohm RCA connector

OUTPUTS

2 S-VHS Sources A to B
2 Composite Video Sources A to B

Y/C out 4-pin 75 ohm DIN connector
1.0 Vp-p 75 ohm RCA connector

CONTROLS

Brightness	+/- 10%
Contrast	+/- 3dB
Color	+/- 6dB
Tint (only available with NTSC system)	+/- 10°
Frequency Response (S input)	4.5 MHz +/- 3 dB
DG, DP	+/- 3%, 3°
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	Two types 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/Video Phono cables (included)