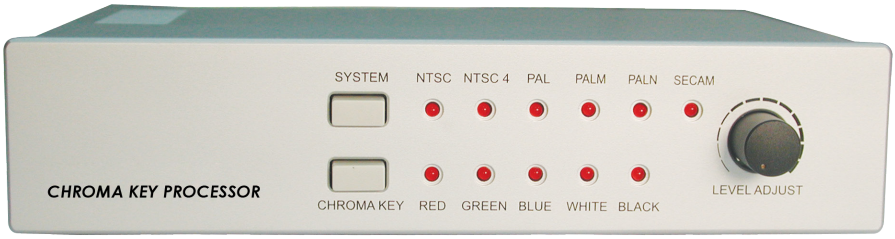
CBK-10

Chroma Key Processor

Operation Manual



CBK-10

Disclaimers

The information in this manual has been carefully checked and is believed to be accurate. Cypress Technology assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.
Cypress Technology assumes no responsibility for any inaccuracies that may be contained in this document. Cypress also makes no commitment to update or to keep current the information contained in this document.
Cypress Technology reserves the right to make improvements to this document and/or product at any time and without notice.

Copyright Notice

Version 1.0 October 2010

Trademark Acknowledgments

Safety Precautions

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	*Date*	*Summary of Change*
V1	*20101007*	*Preliminary Release*
VR2	*20121008*	*Luma Keying Method*

Table of Contents

1. Introduction

The Chroma key processor is a great design that supports Video or S-Video as the main source and the other Video or S-Video input as the background source. The background sources along with 6 background colors chroma key effects. The main source can stand in front of the background source and using the chroma key to take off the background colors to perform the different color effects. Also, using level adjust knob to control the color effect levels.

2. Features

- Support different systems: NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N and SECAM
- upport Key or luma level: Red, Green, Blue, White, Black and Black+White+Blue:
    - Phase keying method: Red, Green and Blue chroma key
    - Luma Keying method: Blue, Black and White
- Input sources support: Key source and Background source with Video and S-Video inputs
- Output support Video 1, Video 2, S-Video 1 and S-Video 2
- Support adjust knob to control Background color effect levels

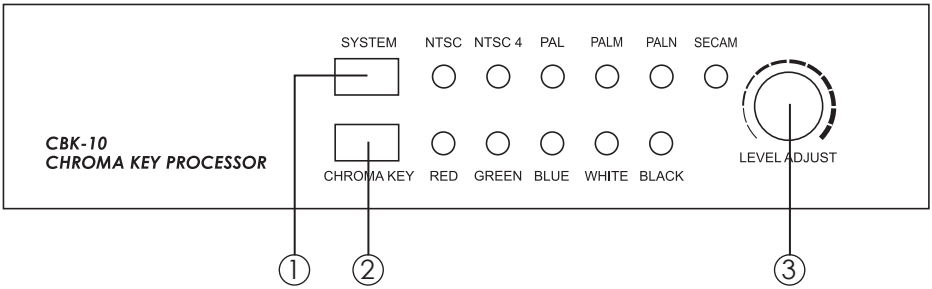
3. Specifications

Input port	Key source Video input: 1.0 Vp-p 75Ω NTSC (PAL) composite signal, RCA jack Y/C input: Y signal: 1.0 Vp-p 75Ω, Mini Din 4-pin connector C signal: 0.3 Vp-p 75Ω, Mini Din 4-pin connector Background Video input: 1.0 Vp-p 75Ω NTSC (PAL) composite signal, RCA jack Y/C input: Y signal: 1.0 Vp-p 75Ω, Mini Din 4-pin connector C signal: 0.3 Vp-p 75Ω, Min Din 4-pin connector
Recording Output port	Video 1, Video 2, S-Video 1 and S-Video 2 Video output x 2: 1.0 Vp-p 75Ω NTSC (PAL) composite signal, 2 x RCA jack Y/C input x 2: Y signal: 1.0 Vp-p 75Ω C signal: 0.3 Vp-p 75Ω, Mini Din 4-pin connector
Input TV system	NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N, SECAM
Video Process	Sampling frequency: 8 bit, 4:2:2, Y: 13.5MHz Sync. Signal Processing: Two channels full frame TBC Differential Gain (DG): +3% Differential Phase (DP): +3%
Keying Process	Phase keying: Red, Green, Blue can be keyed away by phase adjustment
Luma Keying	Blue, Black, White can be keyed away by luminance level adjustment
S/N (Typical) Video	48dB (composite, 50 dB (Y/C)
Power Supply	12VDC/1A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ± 8kV (air-gap discharge) ± 4kV (contact discharge)
Power Consumption	3.5W
Dimensions (mm)	194(W) x 165(D) x 50(H)
Weight(g)	1000
Chassis Material	Metal
Silkscreen Color	Silver
Operating Temperature	0˚C~40˚C / 32˚F ~ 104˚F
Storage temperature	-20˚C~60˚C / -4˚F ~ 140˚F
Relative Humidity	20~90% RH (no condensation)

4. *Hardware Description*

The following sections describe the hardware components of the unit.

4.1 Front Panel



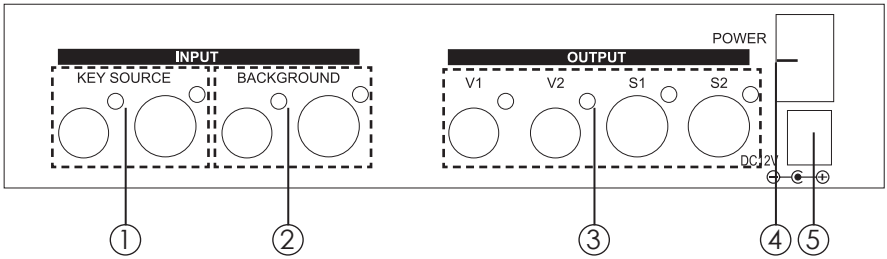
①. System selection button: Press to select the input system (NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N or SECAM).

②. Chroma Key selection button: Press to select the Background color effects. Key or luma level: Red, Green, Blue, White, Black:

- Phase keying method: Red, Green and Blue chroma key
- Luma Keying method: Blue, Black and White

③. Level adjustment: Adjust the knob to control background color levels.

4.2 Rear Panel



①. Input key source: Connect the Video or S-Video to the source which you wish to display as the main source.

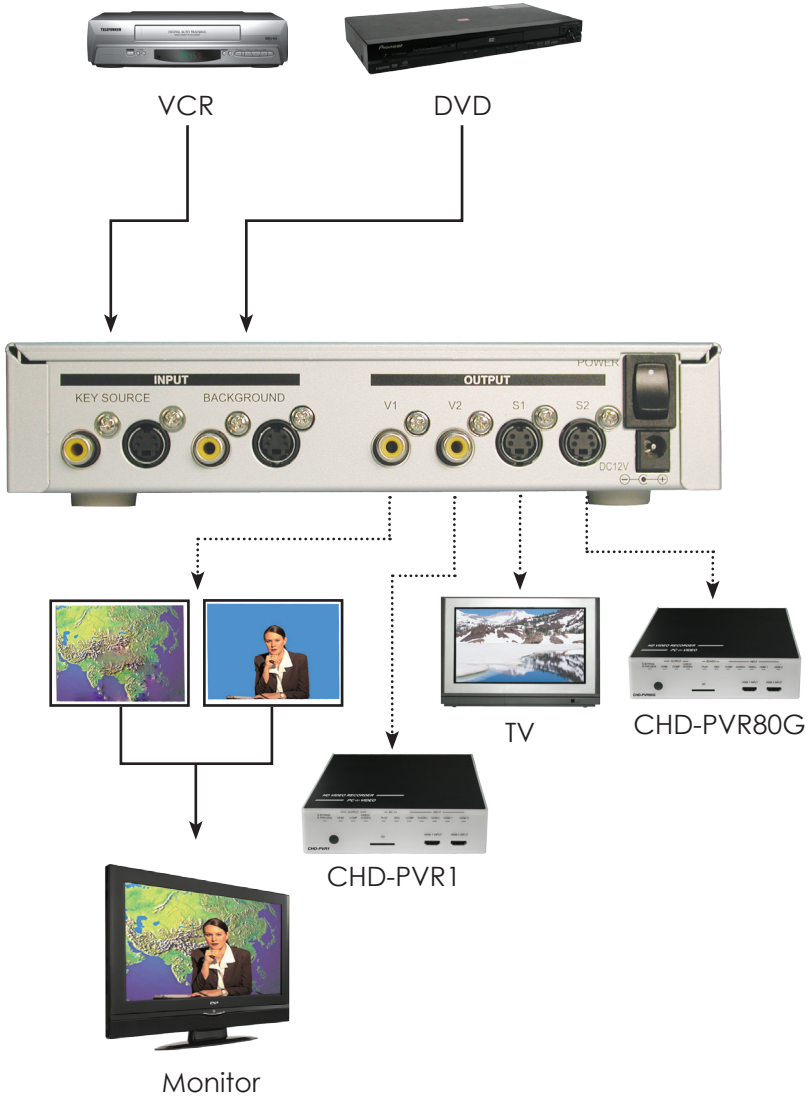
②. Input Background source: Connect the Video or S-Video to the source which you wish to display as the background source.

③. Output connection: Connect the Video 1/ Video 2/ S-Video 1/S-Video 2 to the output display or recorder the Mix images.

④. Power switch: To turn On/Off the system.

⑤. DC 12V In: This slot is where you plug the 12V DC power supply into the unit and connect the adaptor to an AC wall outlet.

6. Connection and Installation



Acronyms

A

Acronym	Complete Term

CYPRESS TECHNOLOGY CO., LTD.
Home page: http://www.cypress.com.tw