Williams 2000 Pinball Machine CRT to LCD Converter ID#15007

Operation Manual

CONVERTERS.TV

Introduction

Williams 2000 Pinball Machine CRT to LCD Converter for Star Wars Episode 1 and Revenge From Mars is ideal for the upgrade of older style CRT monitors that no longer work or are deteriorating in quality. Many older style CRT monitor's are no longer available or are very expensive to replace. The Williams 2000 Pinball Machine CRT to LCD Converter for Star Wars Episode 1 and Revenge From Mars is a plug'n'play tool allowing you to use a modern digital LCD or Plasma monitor that is best suited for your application.

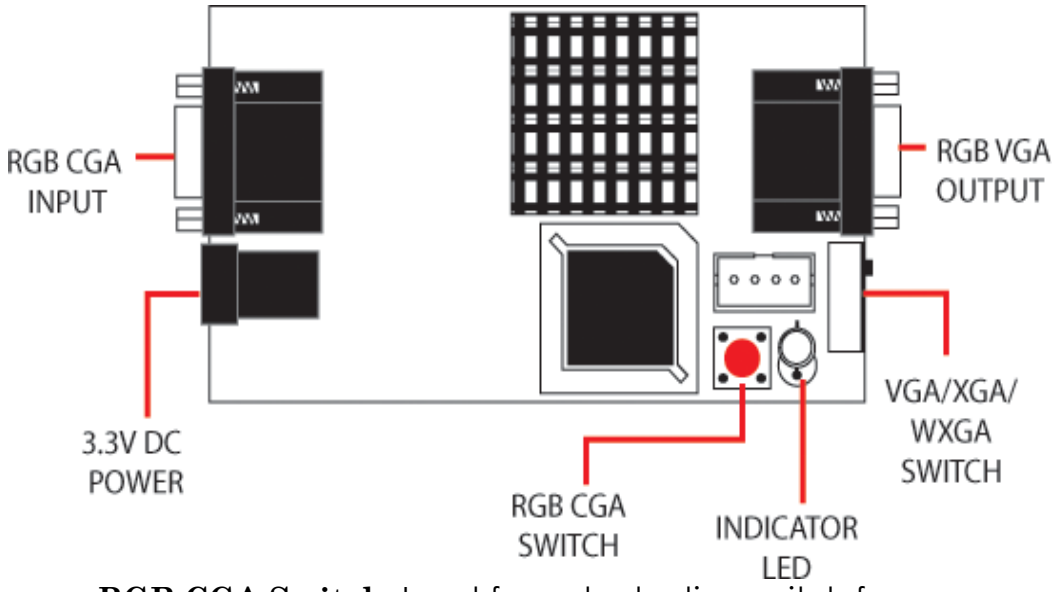
Small and compact, easily installed and operated, the Williams 2000 Pinball Machine CRT to LCD Converter for Star Wars Episode 1 and Revenge From Mars pinball machines installs and connects internally via PC VGA 15pin D-sub cables with the game board and the new LCD screen. The output signal can be selected between VGA resolutions of VGA (640x480 @60Hz) or XGA (1024x768 @60Hz) or WXGA (1366x768 @60Hz). Power for the converter (3.3vDC) can be sourced from the pinball machine PSU or from the supplied 100-240v to 3.3vDC adaptor. The Williams 2000 Pinball Machine CRT to LCD Converter for Star Wars Episode 1 and Revenge From Mars incorporates latest release video graphics chip-set for defined viewing on digital LCD or Plasma screens.

Features

- Plug'n'Display, no software upgrade required
- Convert Analog game signal to Digital game signal for LCD
- Upscale RGB CGA 15kHz to RGB VGA 31kHz
- Output Select between VGA(640*480), XGA(1024*768), WXGA(1366*768) @ 60Hz vertical refresh rate
- Quality Electronic components and latest release video chip-set
- 50/60 Hz frame rate conversion
- Input sync auto detect for RGBHV(separate), RGB H+V (combined) and RgsB(sync on green)
- Automatic 3:2 / 2:2 film mode detection
- 2 power supply methods available (internal and external)
- Low Power consumption

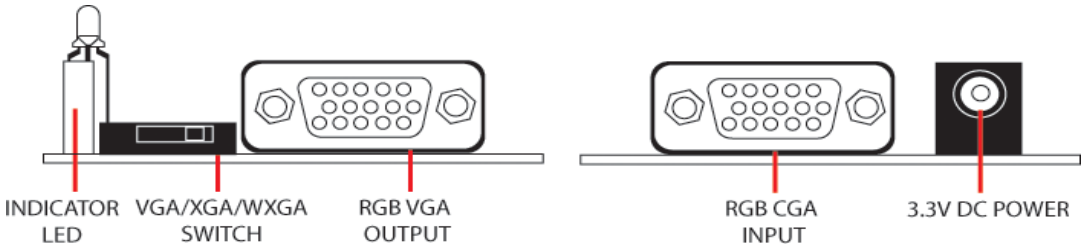
Operation Controls and Functions

Top Panel



- **RGB CGA Switch:** Input format selection switch for RGB CGA input source.
- **Indicator LED :**
  Green light indicates power connected.
  Red light indicates RGB CGA input signal.

Front **Back**



Front

- **VGA/XGA/WXGA Switch**: Output resolution selection: VGA 640x480, XGA 1024x768 and WXGA 1366x768, all at 60Hz vertical rate.
- **RGB VGA output:**HD-15 Female connector.

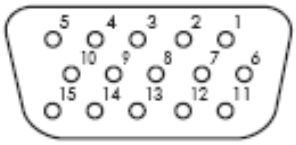
Back

- **RGB CGA Input:** RGB CGA 15kHz source signal.
- **3.3V DC:** power supply input (center positive)

Specifications

- Input connector:	D-Sub 15 female x 1
- Input signal:	RGB 0.7 Vp-p 75 ohm Hsync/V sync 2 Vp-p ~ 75 ohm
- Input timings:	CGA: Hf=15KHz, Vf=60Hz/Non-interlace
- Input format selection:	Press the input select switch to select RGB CGA 15kHz input.
- Output timings:	VGA: 640 x 480 @ 60Hz XGA: 1024x 768@60Hz WXGA: 1366x 768@60Hz
- Power Supply:	DC 3.3V / 2.6A, center positive
- Dimensions:	111(W) x 58(D) x 23(H)mm
- Weight:	65gs
- Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
- Storage Temperature	-20°C ~ 60°C / -40°F ~ 140°F
– **Relative Humidity**	20 ~ 90% RH (non condensing)

D-Sub 15 female Pin Configuration



INPUT CONNECTOR:
pin1: R/Cr
pin2: G/Y
pin3: B/Cb
pin4: NC
pin5: ground
pin6: ground
pin7: ground
pin8: ground
pin9: NC
pin10: ground
pin11: NC
pin12: NC
pin13: Hsync/Hsync+Vsync
pin14: Vsync
pin15: NC

OUTPUT CONNECTOR:
pin1: R
pin2: G
pin3: B
pin4: NC
pin5: ground
pin6: ground
pin7: ground
pin8: ground
pin9: NC
pin10: ground
pin11: NC
pin12: NC
pin13: Hsync
pin14: Vsync
pin15: NC