Multisystem Digital Converter w/ TBC Frame Synchronizer

Operation Manual

Introduction

This unit is a multisytem TBC digital converter that automatically processes video input of any system - NTSC 3.58/4.43, PAL, PAL M , PAL N, SECAM. It is Ideal for rectifying any video errors and abnormal picture.
The unit restores any de-shaped or distorted vertical and horizontal sync. as well as colour burst. Elimination of picture jittering is enabled through Dual-field full-frame reconstruction.
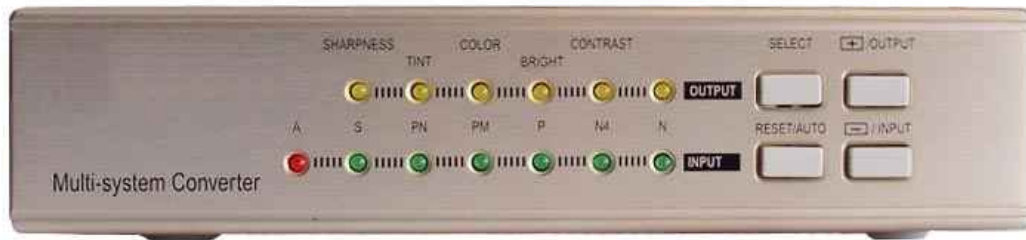

Precautions

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. If the unit is acting abnormally keep the unit away from TV or other electronic equipment.
8. Unplug the unit from the power supply when it is not to be used for a long period of time.

Features

*   Restore distorted or de-shaped vertical and horizontal sync. and colour burst.
*   Eliminate picture jittering and ensure stable image on screen through Dual-field full-frame reconstruction.
*   Correct time error of video that is normally associated with VCR source.
*   Adjust Brightness, Color, 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 present on the input.
*   Digital conversion from input TV signals of NTSC 3.58, NTSC 4.43, PAL, PAL M, PAL N, SECAM to output signals of NTSC 3.58, NTSC 4.43, PAL, PAL M, PAL N, SECAM.
*   Ideal for use in rectifying any video errors and abnormal picture.

Please browse our online catalogue to view our full product range.
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Operation Controls and Functions

Front Panel

- **Input Video System Indicator:**
  Auto, N3, N4, PAL, PAL M, PAL N, SECAM.
  1. A illuminates when input auto detection mode is selected.
  2. N illuminates when input system is set to NTSC 3.58.
  3. N4 illuminates when input system is set to NTSC 4.43
  4. PAL illuminates when input system is set to PAL (BDGIK).
  5. PAL M illuminates when input system is set to PAL M.
  6. PAL N illuminates when input system is set to PAL N.
  7. SECAM illuminates when input system is set to SECAM.

Auto/Manual detection mode: Press the "Select" button repeatedly until one of the six LEDs on the top row light up steadily (so that there is no blinking), which means a video system is selected. Then press the "Reset" button to switch between auto and manual detection mode for the input. When auto mode is selected the "Auto" LED will illuminate along with one of the system LED. When manual mode is selected use "–" button to select your desired input system.

- **Picture Adjustment controls:**

1. **Select:** Press this button continuously to choose the picture adjustment you wish to do. Each depression of the button will toggle through adjustment controls as follows- contrast- bright- colour- tint- sharpness.
2. **+ Button-** Press the button for increasing picture effect value.
3. **– Button-** Press the button for decreasing the picture effect value.
4. **Reset-** When pressing the reset button, the setting of the selected control will be reset to its default value.

* If you press reset for over 5 seconds, all controls will be reset to their default values.

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- **Output Video System/ Picture Adjustment Indicators:**

Each of the six indicators on the top row represents two different meanings:

- When the LED illuminates constantly (where there is no blinking), it represents output video system- SECAM, PAL N, PAL M, PAL, NTSC 4.43 and NTSC 3.58.
- When the LED blinks, it represents one of the five adjustment parameters- sharpness, tint, colour, bright and contrast.

Output system select- Use Select and + buttons
When your press "Select" button repeatedly, it will toggle through various picture adjustments and output systems. Once the LED has circled through to the output system (where there is no blinking), press the + button repeatedly to choose your desired output video system.

Picture Adjust- Use Select and +/- buttons
When you press the "select" button continuously it will toggle through your desired picture adjustment parameter, then use +/- button to increase/decrease setting value

Rear Panel

1. **Video Input-** This is the Composite Video input port. Connect the port to your device using a RCA connector cable.
2. **S-Video Input-** This is the S-Video input port. Connect the port to your device using a mini-din connector.
3. **Power- DC 15V Center Negative-** This is the power supply input port. Connect the power supply to the port.
4. **Video Output-** This is the Composite Video output port. Connect the port to your device using a RCA connector cable.
5. **S-Video Output-** This is the S-Video output port. Connect the port to your device using a mini-din connector.

* The unit will automatically detect the video input (Video/S-Video) when either one of the input is connected. When both inputs are connected, S-Video input has the preference over composite video.

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Connection and Installation

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

- Connect your device (Video cassette recorder/ laser disc/ satellite receiver/ camcorder) to your Video/S-Video input ports. The Composite Video port requires a RCA connector, while the S-Video port requires a mini-din connector for connection to the device.
- Connect your device (Video recorder or TV) to your Video/S-Video output ports. The Composite Video requires a RCA connector, while the S-Video port requires a mini-din connector for connection to the device.
- Connect your power supply to the power supply input port.

Once all connections are complete, switch the power button ON and please connect the power supply provided to the power socket.

Specifications

Input TV System	NTSC 3.58, NTSC 4.43, PAL, PAL M, PAL N, SECAM.
Output TV System	NTSC 3.58, NTSC 4.43, PAL, PAL M, PAL N, SECAM.
Connection Terminals	Video Input: 1 S-Video Input: 1 Video Output: 1 S-Video Output: 1
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
Line Conversion	525-625 lines
Field Conversion	60-50 fields
Processing Controls	Contrast, Bright, Colour, Tint, Sharpness.
Frequency Response	400 lines
S/N Ratio	50 dB
Power Supply	DC 15V 600mA Center negative
Dimensions	145 (W) x 95 (D) x 34 (H) mm
Weight	1 kg
Memory	6M bits