Technical Specification.

Input:
YUV / YPbPr from domestic video equipment, 1V pk-pk.
Audio input connections.
Yellow input has no function and is provided for customisation at owner's risk.

Output:
SCART output compatible with interlaced video only, with audio pass-through. Function and widescreen switching asserted on SCART output.

VGA output compatible with PC type monitors.

No video scaling. 1:1 from input to output resolution.

Copy Protection Compatibility:
Computer control to enhance compatibility with copy protected sources while still maintaining accuracy of unit.

Power:
12V DC, 0.2A. Power consumption 2.4W. LED power indicator.

Enslosure:
Custom printed using PLA filament. This reduces waste plastics by having an optimised design.

Dimensions:
107x74x43mm.

WARNING!
The YUV to RGB SCART converter is powered by mains adaptor. All normal precautions should be observed. Do not spill any liquids on the unit. Do not attempt to service the unit. Do not cover the unit, do allow for ventilation. Do not spray the unit with any combustable substances.

In the unlikely event the unit falters for any reason, disconnect from the mains supply and retry after a few minutes. Contact information is provided below.

Technology

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APL Centre,
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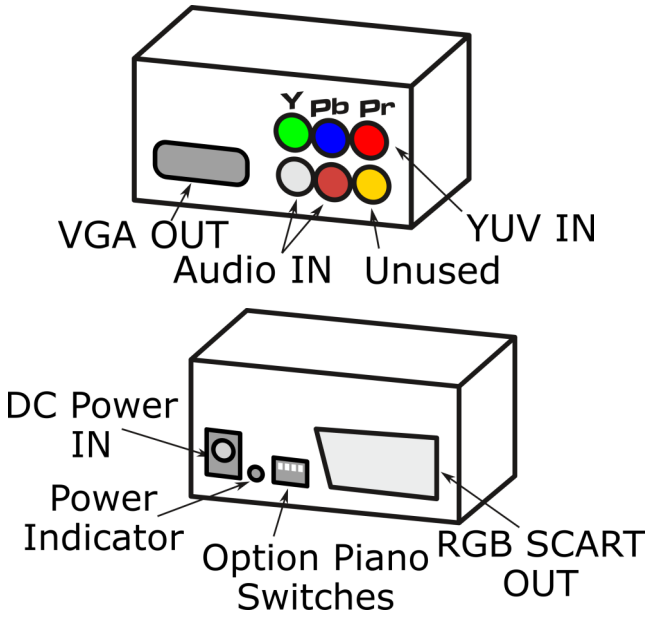
Stevenston.
Ayrshire
KA20 3LR

E-mail: technical@js-technology.com Tel: 01294 471468

Component (YUV) to RGB SCART V2.

http://www.js-technology.com

Instruction Manual.



- Input of Component YUV / Y,PbPr
- RGB output on SCART - interlaced video only.
- VGA output for use with HD Component.
- High bandwidth conversion process for sharp detailed picture.
- Convenient connections to existing equipment - phono input for component and audio, SCART connector for output.
- Computer enhanced synchronisation extraction, compatible with copy protected sources.
- Compatible with both NTSC and PAL formatted YUV video.
- Audio is passed through without modification to ensure optimum audio quality.
- 3D Printed enclosure to reduce plastic waste.

It is recommended that good quality leads be used with the converter and that if the SCART output is used, this cable be fully wired. Suitable cables are available from most good retailers. The unit requires 12V DC to operate.

CE Designed & manufactured in UK/Europe.

Configuration of the Source.

There are two options for Component video:

- Progressive,
- Interlaced.

This converter has two options for outputs, the SCART and VGA connector. No scaling is done between Progressive and Interlaced video or vice versa. If normal SCART is required as an output, the component signal must be Interlaced. If Interlaced is input on for conversion and output via the VGA output, the display must be compatible with interlaced video. Some screens are compatible, such as older plasma monitors, but not typical regular PC monitors. It is possible that professional studio monitors are compatible.

The conversion process is of a high quality making the YUV to RGB SCART V2 converter the ideal means to adding component input to a display with only RGB SCART input.

Computer Enhanced Synchronisation Extraction.

Some interlaced video systems apply a type of copy protection that adds bogus synchronisation pulses to their output. This would typically defeat such a converter, as the timing would be disrupted.

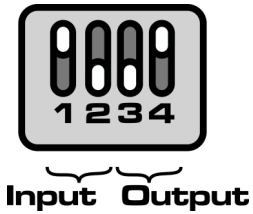
Incorporated in to this converter is a microcontroller to removed the bogus timing information. It is able to detect when the input is interlaced and then apply the correction. It remains idle during progressive video input.

With clean timing, a stable output on SCART is possible.

Input Sync and Output Sync Switch Selection.

To be as flexible as possible the converter allows for two different sources of sync for the input. Either raw, where it is the direct feed from the input video signal, or cleaned where it has been via the Computer Enhanced Synchronisation Extraction process. For Interlaced video the latter should be selected if there are bogus timing pulses on the input.

For output a choice is also given of the cleaned sync signal, or if to use a regenerated sync from the conversion IC. You may find that your TV works better with the cleaned rather than regenerated sync.



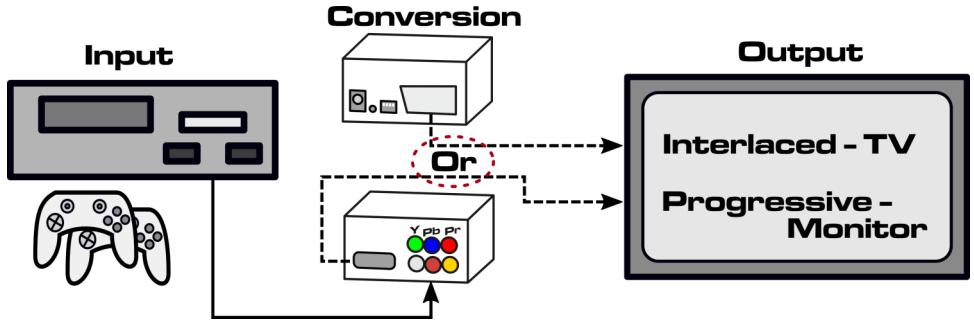
Default Selection.

The switch operation is as follows:

1. Input Sync, Raw Y.
2. Input Sync, Cleaned.
3. Output Sync, Cleaned.
4. Output Sync, Conversion IC Regenerated.

Switches in their lower position is “ON”, and either 1 or 2 should be selected only, not both, and likewise with the output either 3 or 4 but not both.

Connection of the YUV to RGB SCART V2, Including VGA Connection.



Connect the component video source, which could be DVD / Blu Ray / TV Box / Games Console, to the Component to converter’s YUV inputs. The converted video is now available from the SCART and VGA outputs. Audio is passed directly to the SCART output if required, or can be directly connected to an external amplifier.

The SCART output should be used for interlaced video sources only. RGB as well as a composite sync is provided on this connector. The SCART also asserts both RGB enable and Widescreen functions by standard.

Additionally a VGA output is provided for use with HD component sources. Only one output should be used at a time as the video outputs are shared with the SCART connection. VGA output provides a separate H and V sync output.

Component Input Connections.

Component video is via three connections. Green is typically for the Y signal, Blue for U or Pb, and Red for V / Pr. On the front of the converter, these are arranged left to right for Y, U/Pb. U/Pr.