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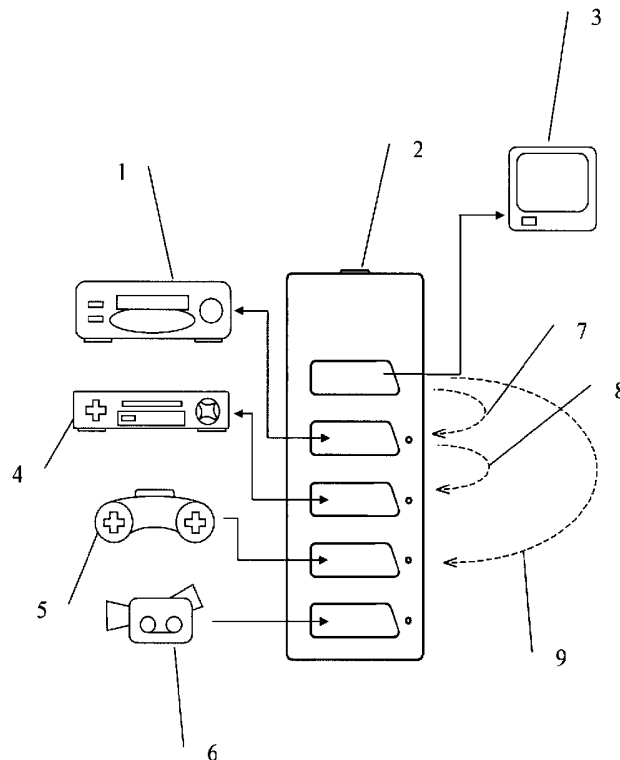
(56) Documents Cited:
GB 2266637 A **GB 2254512 A**
GB 2247375 A **GB 2246048 A**
FR 002583945 A1 **US 4488179 A**

(58) Field of Search:
UK CL (Edition X) **H4F**
INT CL⁷ **H04N**
Other: **WPI, EPODOC**

(54) Abstract Title: **Video switching device**

(57) A video switching device 2 that allows multiple video sources 1, 4, 5, 6 to be connected to a television 3 that includes a video signal detector to facilitate use with a camera or camcorder 6, and/or one or more fixed connections 7, 8 for recording between devices not necessarily connected to the output, and/or one or more fixed connections from the output to allow the output to be viewed in multiple locations. The main output connector and one of the input connectors may be located in a plug - through adaptor at the end of a cable connected to the main body of the device (fig.2).

Figure 1



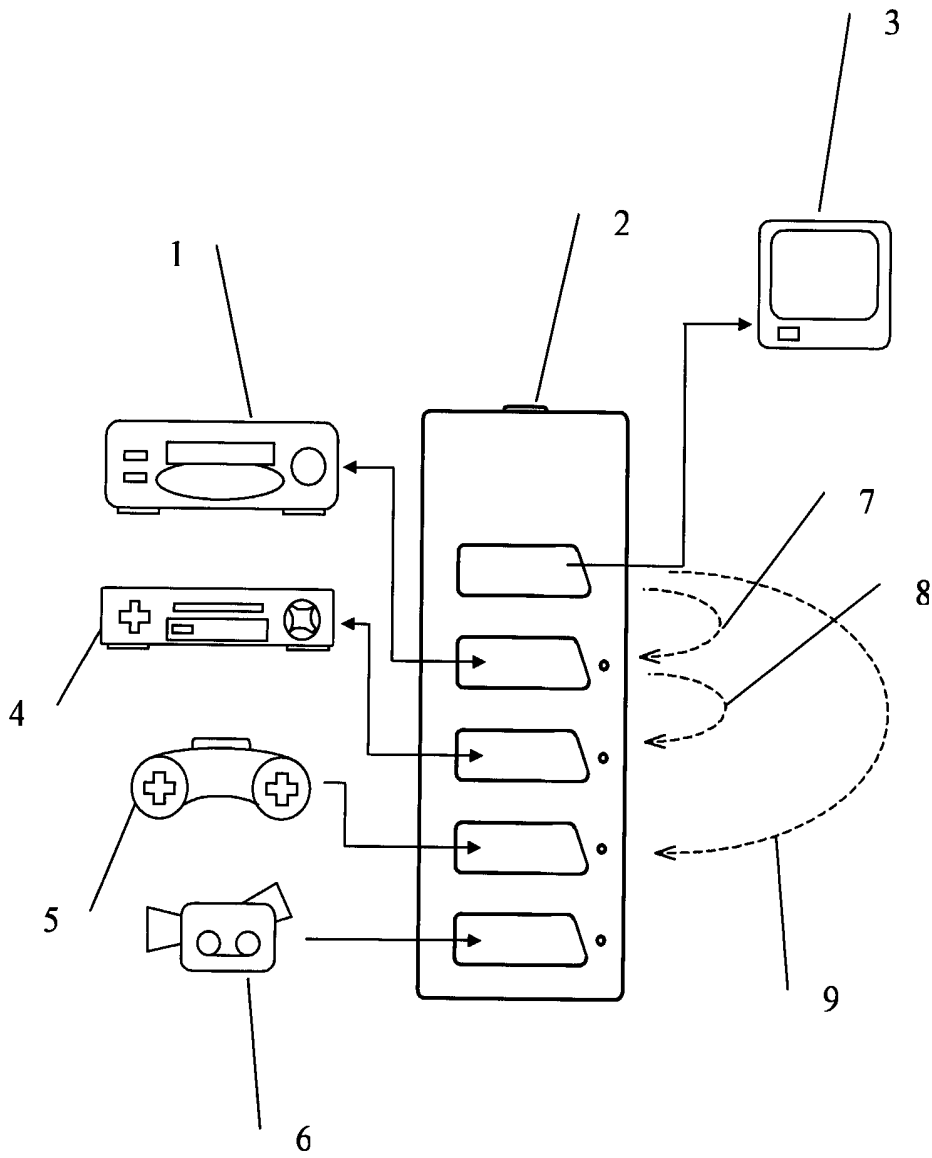
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Original Printed on Recycled Paper

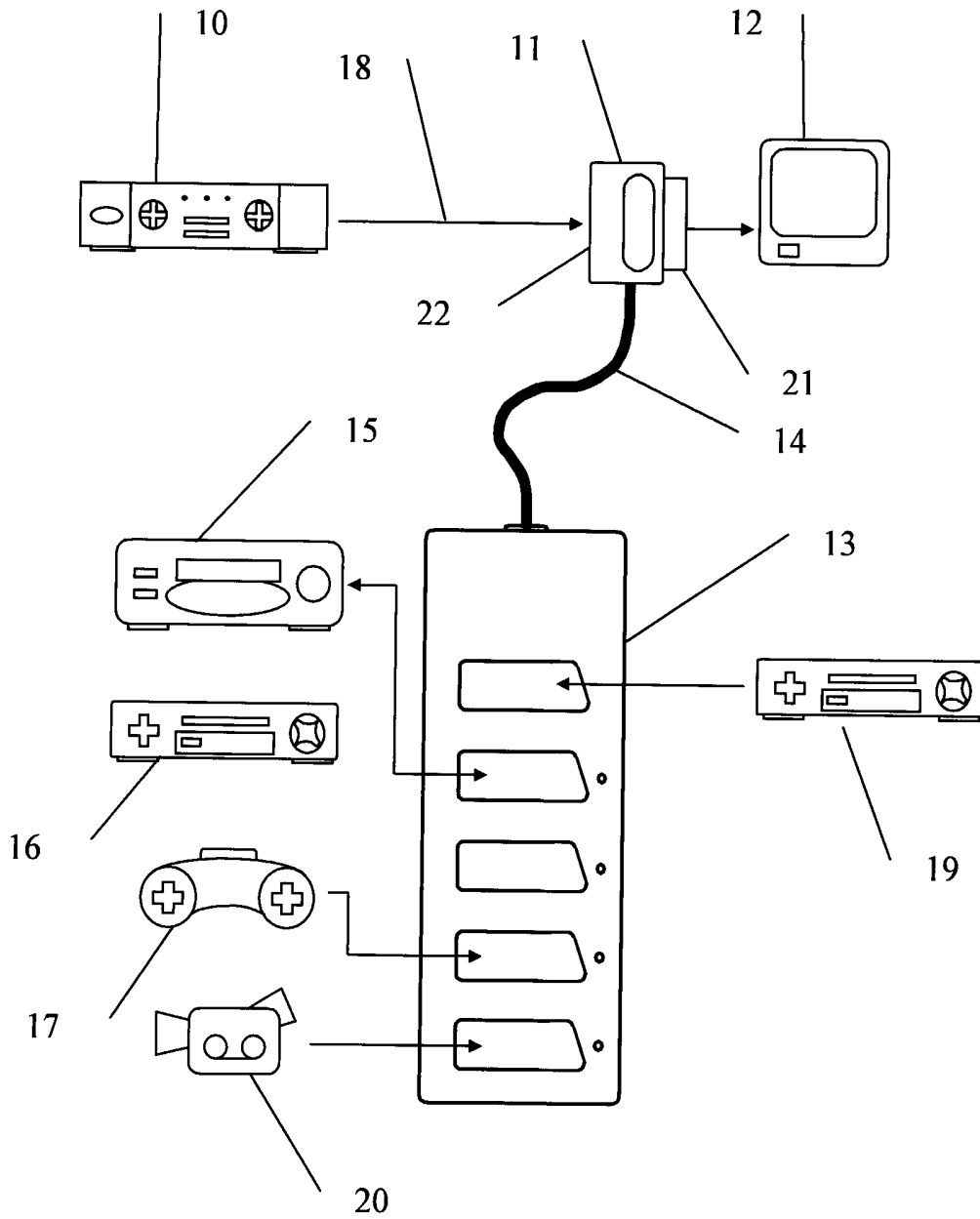
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Figure 1



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Figure 2



Description

The invention relates to a device intended to enable the user to connect multiple video devices to a single television by means of video and audio or SCART connections and to be able to watch one or more of the video sources on one or more televisions via video and audio or SCART connections while at the same time to record the output of another of the video sources on a video recorder also attached to the device.

Hitherto many televisions have presented a problem to users as they are equipped with only a single set of video and audio or SCART connections. In the days when the typical user had only a video recorder to attach to it this was no problem, but today many people have for instance a video recorder, a DVD player, a digital television adapter (often two in fact), one or more video games, a camcorder.

It is irksome to have to swap the cables around at the rear of the equipment every time one wants to watch something different, so clearly a switching solution is required to allow them all to be connected at once but so that only one may be seen on the television at any time.

A further problem appears when for instance the user wishes to record a program for later viewing, but wishes to watch another source at the same time.

If the user wishes to view the output from a camcorder on the television he or she potentially has a problem in that the switching signal used to control a video switching device is not available from a camcorder, so he will still need to disconnect cables.

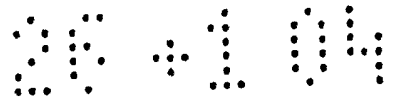
Finally the user may wish to have access to the video output from any or all of the video sources available in another room, potentially using a wireless transmission device. Most of said devices have only a single output connector or set of connectors available which if used of course cannot be connected to a television also.

In the preferred embodiment the switching device, in addition to allowing the output to switch between several different devices, will be equipped with one or more sets of fixed (non switched) connections. One of these may run from the input connections of the output connector to the output connections of one of the input connectors that can be used for recording to a video recorder, another of these may run for instance from the input connections of one of the input connectors to the output connections of another input connector that can be used for recording to a video recorder.

In the preferred embodiment one or more of the input connectors may connect to a video detecting circuit, such that when a video signal is detected even in the absence of a more conventional signal the device will be able to switch to said input. Furthermore the device will be able to generate a conventional signalling signal to control any other devices connected to it that may require it.

In the preferred embodiment the switching device, the output connections, in addition to feeding one connector for use by the main television, may also be connected to either one or more additional connectors solely used as outputs, and/or may connect to the output connections of one or more of the input connector that can be used for connection to another television or transmitting device.

In one embodiment the device could be equipped with additional connectors such that the audio output can be passed to an alternative playout device in addition to the television. This output could switch on and off automatically.

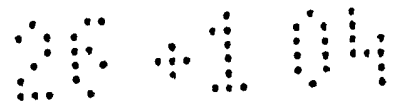


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In another embodiment the main output connector 21 and one of the input connectors 22 could be located in a plug-through adaptor 11 at the end of a cable 14 permanently connected to the main body 13 of the device. This would allow the user to simply connect that portion of the device in series with an existing connection 18 from an existing video source 10 to a television 12, thus saving confusion, and to then connect any additional equipment 15, 16, 17, 19, 20 to the main body of the device.

Figure 1 shows a possible embodiment of this invention.

Figure 2 shows an alternative embodiment



Claims

- 1 A video switching device possibly equipped with SCART connectors intended for connecting multiple video sources to a single television
- 2 A device substantially as in claim 1 that includes one or sets of fixed connections for audio and video signals, one of which may run from the input connections of the main output connector to the output connections of one of the input, others of which may run from the input connections of one of the input connectors to the output connections of another input connector.
- 3 A device substantially as in claim 1 one or more of the input connectors may connect internally to a video detecting circuit, such that when a video signal is detected even in the absence of a more conventional signal the device will be able to switch to said input. Furthermore the device will be able to generate a conventional signalling signal to control any other devices connected to it that may require it.
- 4 A device substantially as in claim 3 which on detection of a video signal is be able to generate a conventional signalling signal to control any other devices connected to it.
- 5 A device substantially as in claim 1 wherein the output signal in addition to feeding one output connector or set of connectors for use by the main television, may also be connected to either one or more additional output connectors or sets of connectors solely used as outputs.
- 6 A device substantially as in claim 5 wherein the output signal in addition to feeding one output connector or set of connectors for use by the main television, may also be connected to the output connections of one or more of the input connectors or sets of connectors.
- 7 A device substantially as in claim 1 wherein the main output connector or set of connectors and one of the input connectors or sets of connectors are located in a plug-through adapter at the end of a cable connected to the main body of the device.
- 8 A device substantially as in claim 7 wherein the plug-through adapter contains electronic circuitry or other switching devices to allow the connection from the local input either to be connected to or disconnected from the output connector or set of connectors and in the appropriate case to allow one of the input connectors or sets of connectors located on the main body of the device to connect to the output connector in its place.
- 9 A device substantially as in claim 1 equipped with additional output connectors such that the audio output can be passed to an alternative playout device.
- 10 A device substantially as in claim wherein the additional audio output is automatically switched off when no signalling signal is present.
- 11 A device substantially as herein described and illustrated in the accompanying drawings.



INVESTOR IN PEOPLE

Application No: GB0401381.9

Examiner: Dr Hazel Craven

Claims searched: 1

Date of search: 8 June 2005

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-10	US 4488179 A (KRUGER), whole document relevant, see especially figure 2, column 1 lines 1-68 and column 3 lines 8-53.
X	1, 2 and 5-8	GB 2247375 A (TATUNG), whole document relevant.
X	1-4, 7 and 8	GB 2254512 A (HOOPWELL), whole document relevant, see especially page 3 line 3 - page 4 line 10.
X	1-4, 7 and 8	GB 2266637 A (BODLE), whole document relevant, see especially page 3 line 19 - page 4 line 15 and page 7 line 16 - page 8 line 10.
X	1, 2, 7 and 8	GB 2246048 A (FERGUSON), whole document relevant.
X	1, 2, 7 and 8 at least	FR 2583945 A1 (PARRIAUX), see figure 1 and EPODOC abstract.

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

H4F

Worldwide search of patent documents classified in the following areas of the IPC⁰⁷

H04N

The following online and other databases have been used in the preparation of this search report

WPI, EPODOC