
Instruction Manual

VCR 3044 MK II

Audio/Video Processor

vivanco

Operating Instructions Audio/Video Processor VCR 3044 MK II

	Page
What is Video Processing?	6
CONNECTING	6
Audio/Video Inputs/Outputs	6
Microphones and Headphones	6
Mains Connection	6
Checking the Connections	7
CONTROLS, BUTTONS AND DISPLAYS	7
Video Controlling Console and Distributing Amplifier	7
Audio Mixer	7
Video Enhancing	7
OPERATION	7
Switching	7
Selecting the Playback Unit	7
Video Enhancing	8
Splitline (screen division)	8
Colour Saturation	8
Contrast	8
Brilliance	8
Sharpness, Contours and Noise Reduction (»Snow«)	8
Audio Mixing	8
Stereo/Mono Switch-Over	8
Sound Monitoring with Headphones	8
Microphone Commentary	8
Mixing	9
Audio Dubbing	9
Audio/Video Fade-in and Fade-out (Faders) - Editing	9
EDITING PLAN	10
Which is the correct lead?	11
WHAT HAPPENS WHEN?	12
SPECIFICATIONS	13

Remarks: Very important — please observe!

Input Select Buttons

The input select buttons (inputs) must only be pushed back individually with the utmost care. A button will automatically jump back if another input is selected. Incorrect forced actuation (pushing them forwards) will invariably lead to damage!

Video Processing

The Processor permits video and audio processing that can be observed on a connected monitor (TV set). However, the observed adjustments cannot coincide with the result of the transferred video recording. This is because the characteristics of the recording deck - the master video recorder - (automatic level control, wow and flutter) are not taken into account. It is therefore advisable to conduct a number of test runs to establish the optimum control ranges.

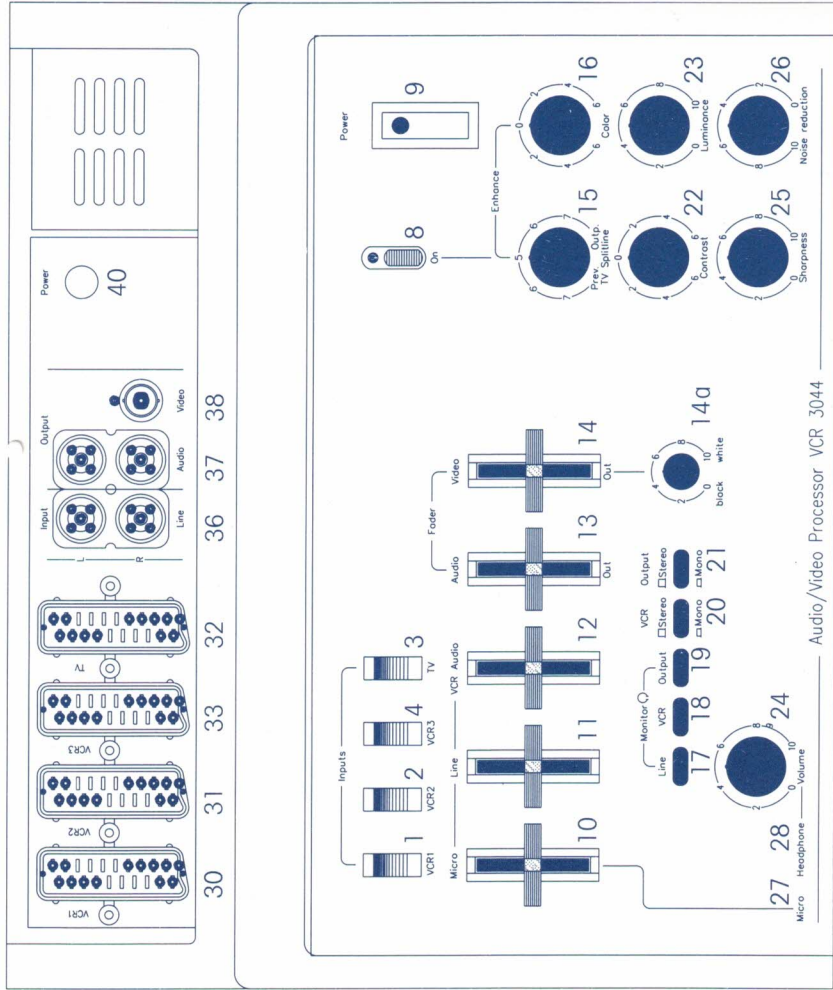


Fig. 1

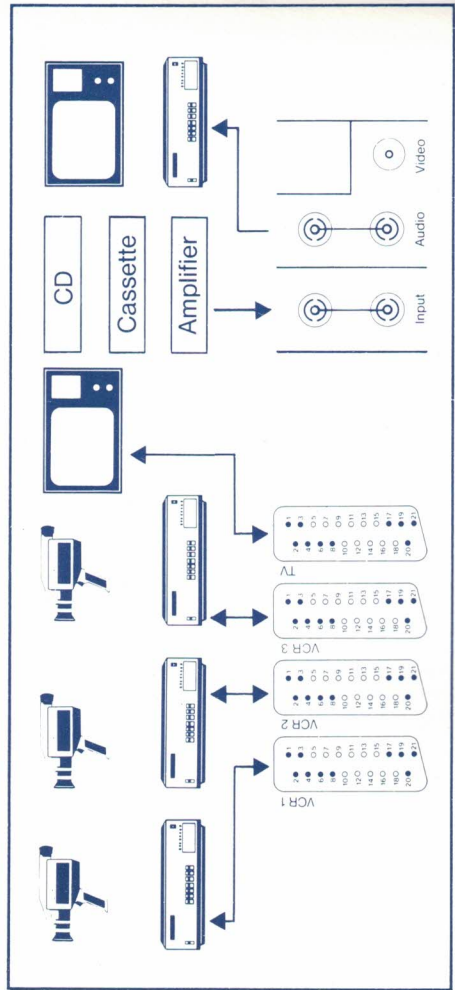


Fig. 2

Controls

- | | | |
|-----|---------------------------|---|
| 1 | Input VCR 1 | Input selection button for video recorder 1 |
| 2 | Input VCR 2 | Input selection button for video recorder 2 |
| 3 | Input TV | Input selection button for television/recordings |
| 4 | Input VCR 3 (Aux) | Input selection button for video recorder 3 |
| 8 | Video Enhance | Video enhancement ON/OFF |
| 9 | Power | Power supply switch |
| 10 | Microphones | Mixing controls to add a microphone commentary |
| 11 | External Sound (Line) | Mixing control to add a high level external sound source (cassette recorder, CD player) |
| 12 | VCR-Audio | Mixing control to add the original video sound |
| 13 | Audio Fader | Fade-in/fade out control for (total) sound |
| 14 | Video Fader | Fade-in/fade-out for picture |
| 14a | Fader | Fade to/from black-grey-white |
| 15 | TV Splitline | Screen-split control to divide screen for picture pre-/post-processing comparison |
| 16 | Colour | Control to readjust colour intensity |
| 17 | External Sound Monitoring | Selector to monitor external sound source with headphones (> Line « input) |
| 18 | VCR Audio Monitoring | Button to select headphones monitoring of the original video sound |
| 19 | Monitoring Outputs | Button for headphones monitoring of mixed sound |
| 20 | Stereo/Mono VCR | Stereo/mono selector for original video sound |
| 21 | Stereo/Mono Total | Stereo/mono selector for audio outputs |
| 22 | Contrast | Control to adjust light/dark contrast |
| 23 | Brightness | Control to adjust brightness |
| 24 | Volume | Volume control for headphones |
| 25 | Sharpness | Control to adjust contour sharpness |
| 26 | Noise reduction | Control for noise (snow) suppression |

Connections:

- | | | |
|----|--------------|---|
| 27 | Micro | 6, 35 mm stereo jack socket for microphone |
| 28 | Headphones | 6, 35 mm stereo jack socket for headphones |
| 30 | VCR 1 | Socket for video recorder 1 (camera, camcorder) |
| 31 | VCR 2 | Socket for video recorder 2 (as 30) |
| 32 | TV | Socket for television set with AV input/output |
| 33 | VCR 3 (Aux) | Socket for video recorder 3 (as 30) |
| 36 | Line Input | Stereo input sockets for external high level sound source |
| 37 | Output Audio | Output socket for stereo sound |
| 38 | Output Video | Output socket for video |
| 40 | Power | Power supply cable |

What is Video Processing?

Not all video recordings are successful at the first attempt. Sometimes important and interesting recordings are too dark or too bright, flat or out of focus. The VCR 3044 MK II enables you to make individual improvements while copying from camcorder to video recorder. Even »dramatic« effects, such as fades, can be produced with ease.

Good sound in part and parcel of a »professional« video film. The VCR 3044 MK II is provided with an outstanding audio mixing console to merge the original sound, for example music from a stereo unit and with a running commentary over a stereo microphone. The entire merging procedure can be monitored with headphones.

Video processing with the VCR 3044 MK II audio/video processing is very simple. Video films can be played back, re-recorded, edited, copied and given a new sound track. At the same time the processor functions as a control console between video recorder and your television set. It is also possible to record from one video recorder to another, while using the television as a control monitor. Naturally, television programmes can also be recorded. Simultaneous copying from one video recorder to several others is also possible. The different modes can be adjusted with switches without having to replug any connecting leads. All standard video systems based on PAL can be used. Stereo sound is a matter of course. The switching voltage required for playback on a television is automatically provided.

CONNECTING

Audio/Video Inputs/Outputs

The video processor can only work properly if the connections have been made correctly. The audio/video scart sockets (Nos. 30-33) in the connection panel are wired as inputs and outputs for transmission in either direction. Additional outputs are available with »Output« (37, 38).

In general, all four audio/video inputs and outputs can be used to connect video recorders, camcorders, etc. as required. A connected signal is supplied to all outputs simultaneously. However, if a television is to be used as a control monitor, it is advisable to connect it to socket 32, as this is where the screen-splitting function is effective. The picture can be split in variable ratios for comparison of the processed picture shown on the left-hand side with the unprocessed picture on the right-hand side.

The audio signals are directly connected by way of the AV scart sockets. For Output (37) they are connected by way of the cinch sockets (33). An additional sound source can be connected via the »Line« cinch inputs (socket 36).

Example:

Fig. 2, page 4, shows a typical system setup.

The Vivanco leads 9/10 can be used as connecting leads if the video recorders are provided with the nowadays widespread AV scart sockets. For other leads see the back of the pack. An additional sound source can be connected to the »Line« sockets (36).

Microphone and Headphones

If the integrated audio mixing console is to be used, then one or two microphones must be connected to the microphone socket (37) (stereo jack 6,35 mm), while the headphones are connected to the headphone socket (28) (stereo jack 6,35 mm). These sockets are located on the left at the front of the audio/video processor.

If a mono microphone is connected, the microphone commentary is mixed into the left channel, unless you switch over to »Mono«, using button 21 for this purpose.

Mains Connection

The mains connection is established with the attached mains lead. Ensure that the power supply always remains within the a.c. voltage range of 200 to 240 V.

Checking the Connections

1. Turn on the power switch (9) (green lamp lights up); see Fig. 1, page 4.
2. Switch off the »Enhance ON« function, using switch (8) for this purpose. The lamp integrated in the switch (8) is turned off.
3. Switch camcorder or video recorder with recorded cassette to playback, and depress corresponding button 1,2,3 or 4, depending upon whether the recorder is connected to »VCR 1,2,3« or »TV«.
4. Switch the television to the AV input that is being used; check whether image and sound are being transmitted from the video recorder. If not, check the connections, and repeat the checking procedure from Point 1.
5. Start recording in the AV function (see Operating Instructions for the video recorder concerned) on the target video recorder that is loaded with a blank cassette.
6. Stop the master video recorder, rewind the tape and switch to playback. Now actuate the corresponding input selector switches 1,2,3 or 4, depending upon the slave video recorder that is connected to sockets 30,31,32 or 33.
7. Check the picture and sound of the copy. If there is no picture or sound check the lead connections, and restart from Point 1.

CONTROLS, BUTTONS AND DISPLAYS

Video Controlling Console and Distributing Amplifier

The audio/video processor features a video controlling console and a distributing amplifier that are adjusted with switches 1 to 4. The button of the selected function becomes locked. The integrated distributing amplifier supplies the selected signal to all outputs simultaneously.

Audio Mixer

The 4 lever controls 10 to 13 are used for sound mixing. Following the mixing of original mono sound with stereo music, the separate stereo/mono buttons 20 and 21 for video recorder input and output allow stereo sound recording on a stereo video recorder.

The monitoring function of the audio mixer with buttons 17 to 19, and the headphones volume control 24, are used to monitor the audio mixer. The different sound sources can be monitored with buttons 17 to 19.

Video Enhancing

The video-enhancing functions are switched on with the Enhance ON button 8, and the controllers 14 to 16, as well as 22,23,25 and 26, are activated. Selection of this causes the lamp integrated in button 8 to light up.

OPERATION

All film editing presupposes a corresponding storyboard editing plan. Advice on how to produce such an editing plan for video films is given in the Section EDITING PLAN. In the event that you are already well familiar with the functions of the individual controls, you can advance directly to the section EDITING PLAN at the end of these Operating Instructions.

Switching

Selecting the playback unit.

Up to four audio/video playback units can be connected to the audio/video processor. The unit that is to be used for playback is selected with the buttons 1,2,3 or 4.

Video Enhancing

Video enhancing is turned on with the »Enhancing« button (8), and the corresponding lamp becomes illuminated. Test the video enhancing function by moving the »Video Fader« (14) to the rear stop (video).

Splitline

The picture of the connected television set can be split into two parts with the »TV Splitline« control (15). Adjustment of the control to its mid position places the processed picture on the left-hand half of the screen, and the unprocessed on the right-hand half. By shifting the control accordingly, the splitline can be moved to the far edge on either side so that the unprocessed or the processed picture can be displayed in full. The splitline function is only effective on TV output so that it can be used while copying.

Colour Saturation

The colour intensity is adjusted with the »Colour« control (16). The colour intensity approximately equals that of the input signal when the control is adjusted to its mid position. Colour intensity is increased by turning the control clockwise, and decreased by turning it anti-clockwise.

Contrast

The contrast between the very dark and very light areas can be intensified or diminished with the »Contrast« control (11). The output signal corresponds approximately to the input signal when the control is in its mid position.

Brilliance

The overall brilliance of the picture can be changed with the »Brilliance« control (23). In its 0-position the brilliance of the output signal approximately equals that of the input signal. Turn the control clockwise to increase brilliance.

Sharpness, Contours and Noise Reduction (»Snow«)

Depending upon the quality of the original video film, an optimum can be adjusted between pictures with sharp contours and those with snow, using the »Sharpness« control (25) and the »Noise Reduction« control (26) (»Snow«). A certain measure of picture grain arises by intensifying the contours with the control 25, and this can be reduced with the control 26.

Audio Mixing

The processor incorporates a complete audio mixing console. For example, the original sound from a video cassette can be mixed with a microphone commentary and an additional piece of music by way of a corresponding input.

Stereo/Mono Switch-Over

The »Stereo/Mono VCR« button (20) can be used to make a distinction between playback from a stereo or mono recorder. Adjust (depress) the »VCR« button (20) to mono if the playback slave video recorder (camcorder) only has one mono track. The original monaural sound will then be distributed to the two stereo channels and, if required, also mixed with stereo music by way of the Line input (36) and a microphone commentary. Adjust the »VCR« button (20) to the stereo position (the button is not depressed) if playback is supplied by a stereo recorder.

The »Stereo/Mono Total« button (21) switches the unit entirely to monaural operation when it is depressed. This is particularly advantageous when the recording master video recorder is a mono deck.

Sound Monitoring with Headphone

Headphones can be used to monitor sound mixing if they are plugged into the »Headphone« socket (28). The »Volume« control (24) only controls the volume for the headphones. It has no effect on the audio signal that is being recorded by the master video recorder. The headphone monitoring buttons (17 to 19) are used to select the incoming sound signal (»External Sound« button 17), the original sound from a video film (»VCR Audio« button 18), or the outgoing mixed sound (»Outputs« button 19) for monitoring by headphones.

Microphone Commentary

A mono or stereo microphone can be connected to the »Micro« socket (27) so that a microphone commentary can be added with the help of the »Microphone« control (10). If only one mono microphone is to be used, then the microphone commentary is always added only by way of the left channel.

Mixing

The lever controls »Microphone« (10), »Line« (11) and »VCR Audio« (12) can be used to match the sound components microphone commentary, sound from »Line« input (36), and the original sound from a slave video recorder/camcorder.

The »Audio Fader« level control (13) is used to fade the final mixed sound in or out.

Audio Dubbing

Certain video recorders have a special audio dubbing function with which video and audio editing can be performed one after the other instead of parallel. The video track remains unchanged, while the sound track can be newly recorded, naturally with the assistance of the processor. However, since a special audio input (see the operating instructions for the given video recorder) is usually envisaged for dubbing on the video recorder, the processor must be additionally connected at this point. Such a connection is established by linking this video recorder input with the »Audio« processor output (37). Sound mixing proceeds in the described manner.

The »VCR Audio« control (12) is used to mix the original sound supplied by a video recorder operating in audio-dub mode.

Audio/Video Fade in/Fade-out (Faders) — Editing

The »Audio Fader« (13) and the »Video Fader« (14) lever controls are used to produce soft sound and picture fade-ins at the beginning of a scene, and equally soft fade-outs at the end of a scene. By moving the »Audio Fader« (13) from the front to the back, the volume increases from inaudible to maximum, while movement of the »Video Fader« (14) from the front to the back fades in the picture. The video film image can be faded in from black, grey or white, and faded out to black, grey or white, irrespective of the position of the background colour fader (14a). The video fader function (14) is only active when the »Video Enhancing« function (8) is switched on.

Sequential connection of a number of individual scenes is manual with the controls of the video recorder (camcorder) that is being used. The following operating sequence must be observed for all dubbing and editing to produce clean transitions:

- A. For recording always start the playback slave recorder first, followed by the recording master recorder.
 - B. To end a scene always stop the master recorder first, followed by the playback slave recorder. Normally this is done by using the pause buttons. Please note that a video recorder usually switches off pause mode (still picture) after a certain period (approx. 3 to 5 minutes). The cut will not be clean if recording is resumed after this period. i.e. pictures will be distorted. In such an event proceed in the following manner:
 - Wind back the tape of the slave recorder to just in front of the new scene and stop.
 - Change over the processor's input, for example from VCR 1 to VCR 2.
 - Wind back the tape of the master recorder, and then advance to the last scene and depress the pause button just before the end.
 - Switch the master recorder to record-pause mode.
 - Return the processor's input to the original setting, for example from VCR 2 to VCR 1.
 - Start playback on the slave recorder, and release the pause button on the master recorder when the scene starts.
- The above procedure only works if the master video recorder features an assemble edit function. The two fader controls (13 and 14) are used to fade-in after both recorders have been started, and to fade-out before the recorders are stopped. Of course both sound and picture can be faded in and out independently of one another. Hard transitions can be produced by leaving the faders in their rear end positions.

EDITING PLAN

To edit a video film it is advisable to first create a storyboard concept in the form of an editing plan. Such a plan specifies the necessary settings, scene by scene, after each one has been previously tested without copying. A form is completed for each scene (see rear of the instructions) so that the correct settings can be quickly found when it comes to making the final copy. Fig. 3 shows an example of a completed scene form.

Scene number, tape count of the video recorder at the beginning and end of a scene, a description of each scene, the microphone commentary, and the different button and control positions for each scene, are all listed.

A »professional« editing procedure should be as follows:

1. After all connections have been checked (see corresponding section), all controls are moved to 0-position. The tape counter of the source or slave video recorder is adjusted to »0«. From now on the counter of the slave video recorder must not be reset to »0« while editing is in progress.
2. Locate the first scene, using the tape controls of the slave video recorder. Make a note of the tape count at the beginning of a scene, the scene number and the scene designation.
3. Locate the end of the scene, possibly with the help of the »search« facility if this is available, and make a note of the tape count.
4. Rewind the tape to the beginning of the scene.
5. Playback the scene while practising the correct control settings. It may be necessary to repeat this procedure several times until all settings are as required.
6. Once the best settings have been established they are entered on the form.
7. Repeat the points 2 to 6 for the next scenes.
8. After all scenes have been defined and entered in the previously described manner on the forms, the running order of the scenes has to be stipulated and noted.
9. Once the complete storyboard, stipulating all scenes, settings and running order, has been assembled in this manner, copying can start.

The following procedure should be observed for this purpose:

- Load an empty cassette in the recording master video recorder, and allow it to run forwards a little.
 - Advance the playback slave video recorder to just before the beginning of the first scene and hold it in play-pause mode.
 - Adjust the scene settings on the processor.
 - First start the slave video recorder, followed by the master video recorder; if necessary, fade in the sound and picture.
 - If required, mix in the commentary while copying.
 - If desired, fade out the sound and picture.
 - First stop the master video recorder, followed by the slave video recorder.
 - Repeat the previously described procedure scene by scene.
- Please refer to section »Audio/Video Fade-in and Fade-out«, particularly if clean transitions have not been produced.

Title: <u>Sea 1990</u>	Scene: <u>sunset</u>				
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Fig. 3

Which is the correct lead?

VCR, TV, Camcorder					
VCR 3044 MK II	AV-SCART / - - - - I	CINCH 0 0 0	BNC/CINCH 0 0 0	AV-DIN Q	Movie
Vivanco type					
- - - -	9/10 (9/17)	9/16	9/16 + 9/04	9/02 + 9/27	9/29
0 0 0	9/16 + 9/04	9/14 + 9/04	9/19 + 9/03	9/13 + 9/04	- - -

Audio (stereo unit, CD-player, tape recorder, cassette recorder, microphone, headphones . . .)				
	5-pin DIN	CINCH	3.5 mm - jack - 6,35 mm	5-pin
	Vivanco type			
Line o o	1/06	3/01	5/09	2/11 + 3/01
Mic	----	----	2/06	standard
Headphones	----	----	2/06	standard

Fig. 4

WHAT HAPPENS WHEN . . .

- . . . the connected equipment does not have any AV scart sockets?
Use an adapter or adapter lead; see Fig. 4
- . . . the television set only has one aerial socket?
Purchase from your local dealer a modulator that, in the event of quality loss, converts the output into an aerial signal.
- . . . more than one copy is to be simultaneously made?
All input sockets are also wired as output sockets so that further video recorders can be connected (a maximum of 5).
- . . . »Output« is to be used as an output?
No problem. »Output« is an AV output and is also supplied with the processed video signals.
- . . . units with DIN AV sockets are to be connected?
Use VIVANCO leads and adapters (9/02 + 9/27).
- . . . a microphone is to be connected?
Use any microphone, stereo or mono, with an impedance of less than 2.2 kOhms and 6,35 mm jack, for example VIVANCO EM 70. Otherwise use adapter if the microphone plug does not fit.
- . . . a video recorder does not record?
The corresponding recording socket on the video recorder must be switched on (e.g. »Camera/Video«, Line, AV 1, . . . a.s.o.)
- . . . there is no picture and sound coming from the television set?
Switch the television to AV channel and, if necessary, see section »Checking the Connections«.
- Switch on the power switch of the processor, even if films are only to be played from the video recorder to the television set. Select the correct input switch VCR 1, VCR 2 or VCR 3 (Aux.).
- . . . there is no sound output or no sound is being copied?
Move the VCR audio and audio fader lever control to the back.
- . . . a record player is to be connected?
Connection is only possible by interposing a pre-amplifier, for example stereo unit, mixing console, etc.
- . . . nothing is seen?
Follow once again the instruction in »Connections«. If cinch or BNC connections are being used, check whether input and output have not been exchanged. Input must always be connected to output, and output to input. If necessary, exchange the plugs on the television set, video recorder.
- . . . there are picture and/or sound faults during or after re-recording?
Adjust all controls to O-position or to smaller values. Sometimes less proves to be more because video recorders are fitted with automatic level controls which clearly change the desired result.

SPECIFICATIONS

Contrast control: + 3 dB, - 2 dB
 Colour saturation control: + 2 dB, - 9 dB

Contour sharpness control, brightness control, noise suppression, separate picture and sound fade-in/fade-out, automatic standard function.

Splittine facility to divide pictures for before-and-after assessment.

3-channel stereo mixing console with audio monitoring.

Inputs: Audio/Video: 4* scart, Audio: 1 V/20 kOhms; Video: 1 Vpp/75 Ohms

Audio: Line in: Cinch (1 V/20 kOhms) microphone 6,3 mm jack (stereo: 1 mV/2,2 kOhms)

Outputs: Audio/Video: 4* Scart, 1* cinch/BNC, Audio: low impedance; Video: 1 Vpp/75 Ohms

Headphones: 6,3 mm jack (stereo: 300 mV/32 Ohms)

Power supply: 200 - 240 V/50 Hz, built-in

Video bandwidth: 5 Mhz

Line resolution: > 400 lines

Audio bandwidth: 30 Hz . . . 25 kHz

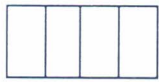
Dimensions (approx.): Height 63 mm

Width 300 mm

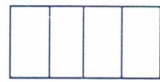
Depth 250 mm

Title:

Scene:



Start



End



VCR1



VCR2



VCR3



TV



on
out

AUDIO



Mic

Ext. Sound

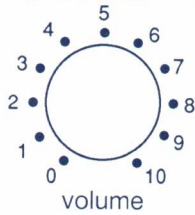
VIDEO



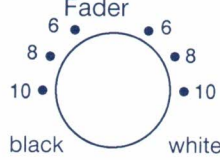
VCR-Audio

Audio Fader

Video



volume

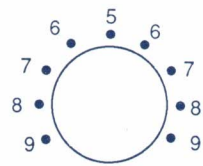


black white

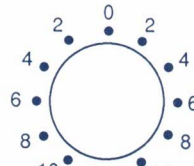
Stereo/Mono



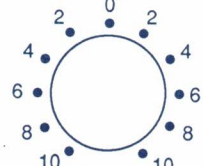
on
out



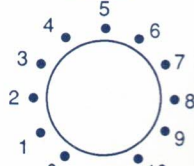
TV-Splitline



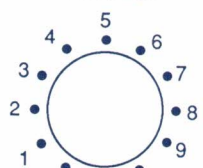
Colour



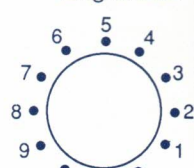
Contrast



Brightness



Sharpness



Noise Reduction