



VISION 500

STEREO VIDEO PROCESSOR

AND TITLER SYSTEM

INSTRUCTION MANUAL

Before you use this Product

So that you can fully enjoy using this product, we recommend that you take a few minutes to study this manual before you begin.

optex® Vision 500

Stereo Video Processor and Titler System

Thank you for purchasing the Optex Vision 500 Stereo Video Processor and Titler. The Vision 500 is a colour video titler designed to meet the requirements of today's camcorder user. The Vision 500 will allow you to add 8 pages of text, at different sizes, in a choice of 8 colours. The text can scroll over a coloured background and can even be superimposed over live video. The three channel audio mixer will allow you to add narration and background music. For that professional touch, the Video Fade feature will fade out the titles and video picture. The Vision 500 is compatible with S-VHS and Hi-8.

Kit Contents

Vision 500 Stereo Video Processor & Titler	x1
DC Adapter	x1
Instruction Manual	x1
Instruction Video	x1
Connecting Cable	x1
Microphone Headset	x1

WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.
 Avoid sudden or extreme changes in temperature.
 Avoid areas of high humidity or dust.
 Keep away from direct sunlight.
 Keep away from water.

FOR YOUR SAFETY – DO NOT REMOVE OUTER COVER.

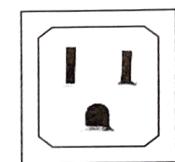
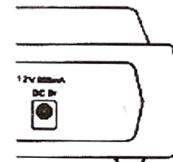
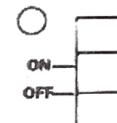
To prevent electric shock, do not remove cover. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

Powering the Vision 500

The Optex Vision 500 is an AC operated unit and will need to be powered via the 12 Volt DC adapter (supplied).

1. Make sure that the Vision 500 is switched off.
2. Connect the power jack into the jack on the rear of the Vision 500.
3. Connect the adapter into a wall receptacle.

POWER

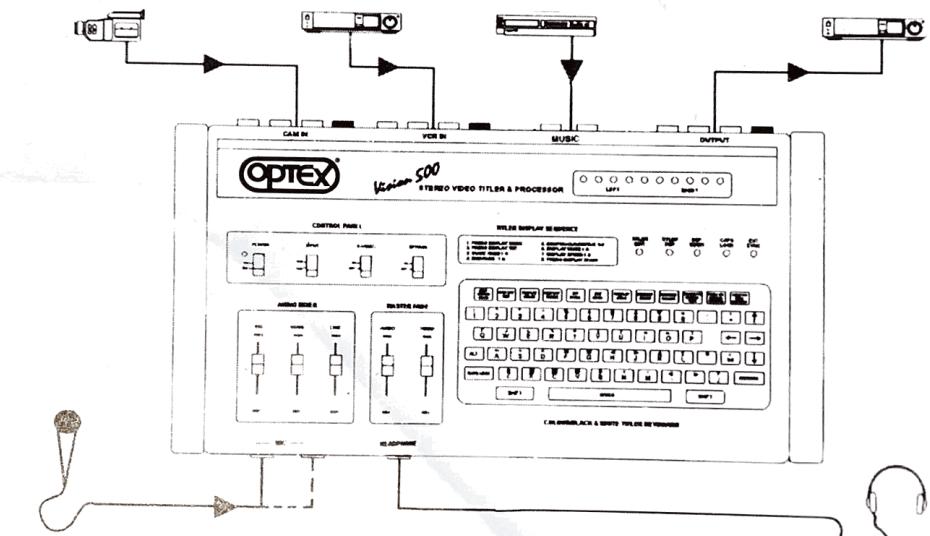


Replacing the Back-Up Battery

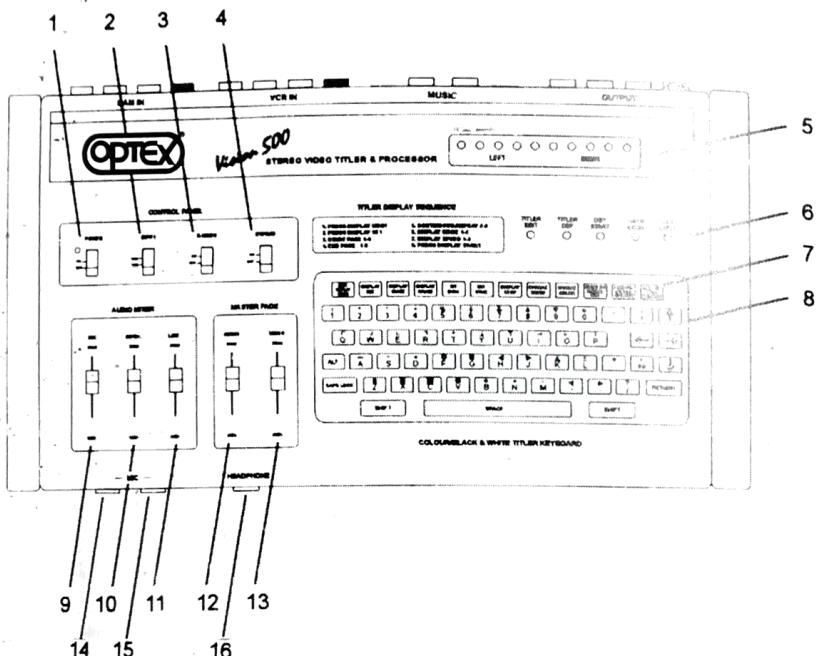
The Vision 500 has an internal back-up battery designed to store the title pages after the unit has been switched off. This battery has an approximate life of 10,000 hours. If the memory does fail, then it is likely that this battery needs to be replaced. Replace with a 3V Lithium CR2032 or equivalent.

Set up

The diagram below shows all the possible connections to the Vision 500. For a more detailed explanation of each section, refer to the appropriate parts of this manual.



Key to Features



Key

- | | |
|----------------------------|-------------------------------|
| 1. On/Off Switch | 9. Mic Level Slider |
| 2. Input Selector Switch | 10. Music Level Slider |
| 3. S-Video Select Switch | 11. Line Level Slider |
| 4. Bypass Switch | 12. Master Audio Level Slider |
| 5. LED Level Indicators | 13. Video Fade Slider |
| 6. Function Indicator LEDs | 14. Microphone Jack Left |
| 7. Function Keys | 15. Microphone Jack Right |
| 8. Keyboard | 16. Headphone Jack |

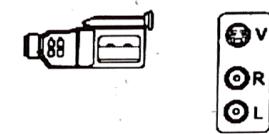
Connecting the Playback Source

The Vision 500 will need to be connected to the playback machine which can either be a camcorder or a VCR.

1. Locate the AV outputs of the playback machine. (Refer to users manual if necessary).



2. Connect the AV outputs from the playback machine to the AV inputs on the rear of the Vision 500.



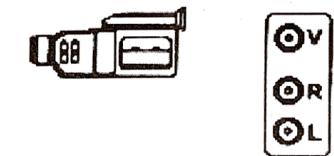
Note: You can connect a Camcorder or a VCR to either of the "CAM IN" or "VCR IN" jacks. If you are using S-VHS or Hi-8 equipment, use the S-Video jack on the rear of the Vision 500.

Mono or Stereo

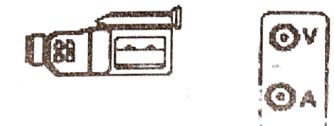
If your playback source has Stereo Audio, then there will be two audio connections between it and the Vision 500.

If your source has Mono Audio, then connect it to the single jack labelled "L" on the rear of the Vision 500.

Stereo



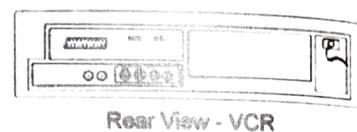
Mono



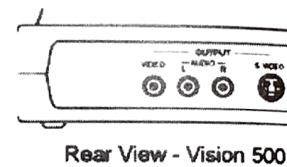
Connecting the Recording VCR

You will need to connect the output of the Vision 500 to the input of the Recording VCR in much the same way that you would have normally connected the Camcorder for editing in the past.

1. Locate the AV Input on the recording VCR.



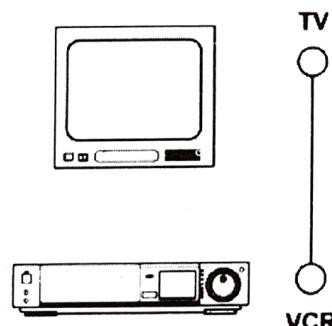
2. Connect the AV Outputs on the Vision 500 to the AV Inputs on the recording VCR.



3. Switch the recording VCR to the correct AV Mode.

Note: It is important that you switch the recording VCR to the correct AV Mode otherwise nothing will be recorded.

4. Connect the recording VCR to the T.V. as you would normally – i.e. via the antenna jack.



AV Modes

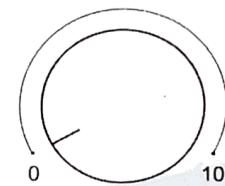
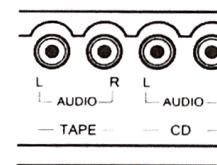
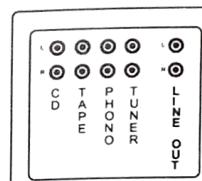
All VCRs have at least one AV Mode, many have more than one. There will be a switch or a button on the VCR that will toggle the VCR between the Tuner Mode and the AV Mode. Unfortunately, VCR manufacturers call the AV Mode different names, so that it is also known as the External Mode, Auxiliary Mode or Line Input. These can be abbreviated to EXT, AUX or L1, L2 etc. If in doubt consult the users manual.

Connecting the External Audio Source

You can use a Hi-Fi system or a CD player or any external audio source to add background music/sound effects etc.

1. Locate the "LINE OUT" jacks on the music source.
2. Connect the external source to the "MUSIC" jacks on the rear of the Vision 500.
3. If your music source does not have a "LINE OUT", then you can use the Headphone output instead. If so, you will need to obtain the correct type of adapter so that it can be connected to the Vision 500.

Note: If you are going to use the Headphone jack on your Hi-Fi, then you must ensure that the volume is kept low to avoid distorting the sound. It is recommended that you begin with the volume at zero and gradually increase it to the desired level.

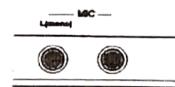


WARNING – DO NOT USE SPEAKER JACKS

You must never connect the speaker output from a Hi-Fi to the Vision 500 as this will cause irreparable damage not covered by the warranty.

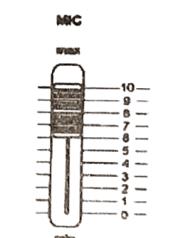
Connecting the Microphone and the Headset

The Vision 500 comes supplied with a Microphone headset for narration and voice-overs. The microphone headset will allow hands free narration and accurate monitoring of the audio mix.



1. Plug the microphone cable into the jack on the front of the mixer labelled "L(mono)".

Note: If you have a second microphone or a stereo microphone, use the other microphone jack labelled "R" for stereo narration.



2. Speak into the microphone and adjust the volume using the Mic Fader to obtain the desired level.

Note: If the T.V. is too loud, then you may experience "feedback" with the microphone. If this occurs, either turn the T.V. down or move the microphone away from the speakers.



3. Connect a pair of headphones (optional) into the "Headphone" jack of the mixer to help you monitor the mix more accurately.

How to use the Vision 500

Switching the Vision 500 ON.

The ON/Off switch is located on the left of the Vision 500.

When you first switch on you will be presented with the test screen. This test page will disappear when you press any key.

NOTE: When the title unit is switched on, the titler runs a built-in self demonstration page. If by-pass switch is on, any video input to the machine which is running will interfere with this demonstration program and the picture will appear distorted. If this occurs, press any key to stop the self demonstration program and press the **EXT/SYNC** switch. The by-pass will then apply only to your video source.

Using the Keyboard

The characters on the keyboard of the Vision 500 are coloured **RED**, **YELLOW** and **GREEN**. Some keys have a dual purpose and may have two characters in different colours. The following describes how to access a particular feature/character of a key.

YELLOW

Press any key that is coloured Yellow to accesss the yellow feature/character.

RED

Hold down the **SHIFT** key and press the key to access the red feature/character.

GREEN

Hold down the **ALT** key and press the key to access the green feature/character.

The Vision 500 has two modes of operation:

EDIT mode.

DISPLAY mode.

This allows you to create the titles to be displayed on the screen.

A flashing cursor will show up on the left corner of the screen. There are 8 pages of memory available for use.

DISPLAY mode.

This will show you the characters stored in the memory. You need to be in this mode in order to program the Vision 500 to display a sequence of pages.

Editing

When editing tapes, you would normally go through the following sequences:

1. Confirm that all of the equipment is connected correctly.



2. Set the recording VCR to the correct **AV Mode**.



3. Locate the desired scene on the playback machine.



4. Place the recording VCR into **Record-Pause**.



5. Press Play on the playback machine and at the same time release the pause on the recording VCR.



6. At the end of the desired scene **Stop** your playback machine and press **Pause** on the recording VCR.



7. Repeat steps 3 - 6 for next scene.



This procedure forms the basis of what is known as **ASSEMBLE EDITING**.



Overview of the Keyboard Function Keys

EDIT/DISPLAY MODE

Toggles between the two modes of operation.

DISPLAY SET

Sets up the parameters of the Display mode. Pressing this button cycles through Starting Page, Ending Page, Display Cycle, Display Way and Display Speed.

DISPLAY START

Start to display the characters.

DISPLAY PAUSE

Toggles between Pause on and off.

INT SYNC

Displays the stored pages over a coloured background.

EXT SYNC

Displays the characters over the signal from the playback machine.

DISPLAY STOP

Stops the display of the characters.

CHARACTER MODE (CHARAC. MODE)

Cycles through Normal Characters, Outlined Characters or Block-type Characters.

CHARACTER COLOUR (CHARAC. COLOR)

Cycles through the 8 character colours.

ERASE PAGE (ERASE PG.)

Erases the current selected page.

CHARACTER SIZE (CHARAC. SIZE)

Cycles through the character sizes.

PREVIOUS PAGE (PREV. PG.)

Shows the previous edited page

NEXT PAGE (NEXT PG.)

Shows the next page to be edited.

CHARACTER BACKGROUND (CHARAC. BACKGND)

Cycles through the 8 character background colours.

FIELD BACKGROUND (FIELD BACKGND)

Cycles through the 8 background colours.

Creating a Title Page

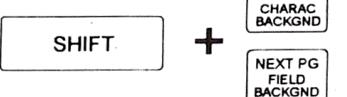
When you first switch the Vision 500 **ON** you will be presented with a test page. This page will disappear when you press any key.

1. Select the **EDIT MODE** by holding down the **SHIFT** key and pressing the **EDIT DISPLAY MODE** key.



The **TITLER EDIT LED** will illuminate to show that you are in the edit mode.

2. Select the page that you wish to use by holding down the **SHIFT** key and pressing the **PREV PG** key or the **NEXT PG** key.

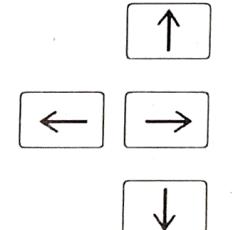


The cursor will display the current page number (from 1 to 8).

3. Use the **ARROW** keys to position the cursor on the screen where you want the text to begin.

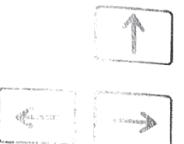


4. Type in the desired characters to create the title page.



Changing the Character Colour

1. Using the **ARROW** keys position the cursor where you want the text to begin.



2. Press the **CHARAC. COLOR** key to cycle through the 8 different colours.

The cursor will change to the selected colour.



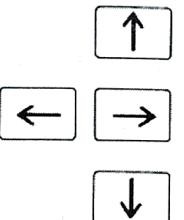
3. Type in the desired text.

The text will appear in the selected colour.

Changing the colour of text that has already been typed

You can change the colour of text at any time during the edit mode.

1. Use the **ARROW** keys to position the cursor over the character to be changed.



2. Press the **CHARAC. COLOR** key to cycle through the 8 different colours.

The cursor will change to the selected colour.

The text will now change to the selected colour.



Changing the Size of the Characters

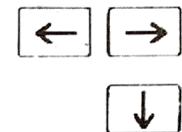
The Vision 500 can display characters in one of two sizes for each line of text.

1. Using the **ARROW** keys position the cursor where you want the text to begin.



2. Press the **CHARAC. SIZE** key to switch between the two character sizes.

The cursor will change to show the current selected character size.



3. Type in the desired text.

The text will appear in the selected character size.

Changing the size of text that has already been typed

You can change the size of text at any time during the edit mode.

1. Use the **ARROW** keys to position the cursor on the line of text to be changed.



2. Press the **CHARAC. SIZE** key to switch between the two character sizes.



The line of text will change to the selected character size.



NOTE: You cannot mix different character sizes on the same line.

Changing the Background Colour

The Vision 500 can display each page on one of 8 background colours.

1. Press the **FIELD BACKGND** key to cycle through the 8 background colours.



NOTE: If the background colour is the same as the character colour then you will not see the characters on the screen. If this is the case, press the **FIELD BACKGND** to select another.

Changing the Character Mode

The Vision 500 can display characters in one of three modes for each line of text.

1. Using the **ARROW** keys position the cursor where you want the text to begin.
2. Press the **CHARAC.. MODE** key to switch between the three character types.
3. Type in the desired text.

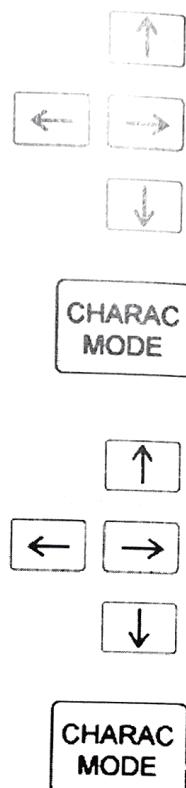
Changing the character mode of text that has already been typed

You can change the character mode of text at any time during the edit mode.

1. Use the **ARROW** keys to position the cursor on the line of text to be changed.
2. Press the **CHARAC. MODE** key to switch between the three types.

The line of text will change to the selected character mode.

NOTE: You cannot mix different character modes on the same line.



Examples of the Different Character Modes

The three character modes are as follows:

NORMAL Mode

This is the standard text mode that is ideal for the end credits of a production.

NORMAL mode

BLOCK Mode

This mode places the characters on a black background. If you press the **CHARAC. BACKGND** key you can cycle the background from black through to white.

BLOCK mode

This mode is ideal for superimposing on to live video to create subtitles.

BLOCK mode

BLOCK mode

OUTLINED Mode

This text mode creates an outline around the characters. If you press the **CHARAC. BACKGND** key you can cycle the outline from black through to white.

OUTLINED mode

This mode is ideal for creating opening titles etc.

OUTLINED mode

OUTLINED mode

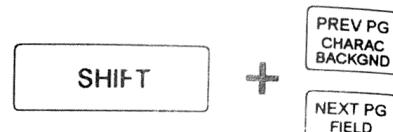
OUTLINED mode

Other Features

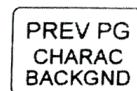
Character Background

When you are using **BLOCK** mode or **OUTLINED** mode characters, you can alter the shading of the character's background colour from black through to white.

1. Select the page that you wish to alter using the **SHIFT** key together with the **PREV PG.** and **NEXT PG.** keys.



2. Press the **CHARAC. BACKGND** key to cycle through the different background shades.

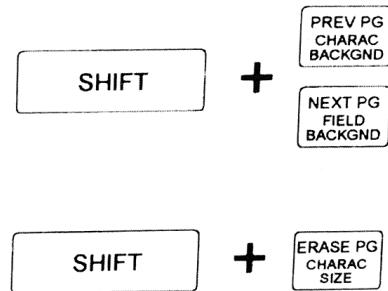


Any characters on the page in the **BLOCK** mode and **OUTLINED** mode will show the different background shades as you cycle through them.

Deleting a page of text

1. Select the page to be deleted by holding down the **SHIFT** key together with the **PREV PG.** and **NEXT PG.** keys.
2. Hold down the **SHIFT** key and press the **ERASE PG.** key.

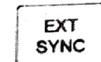
The text will be erased from that page.



Superimposing the Titles

The Vision 500 can display the title pages over live video from the playback machine. This is known as **External Synchronization** (or **EXT SYNC**).

1. Create the title page as described in this manual.
2. Place a tape into the playback machine and press **PLAY**.
3. Press the **EXT. SYNC** key on the Vision 500.



The **EXT. SYNC LED** will illuminate to show that this mode is active.



You will now see the title superimposed on to the signal from the playback machine.

NOTE: When titles are superimposed over live video, they will appear only as black, white, or as a shade of grey. When colour titles are selected, the title will appear over live video as a grey version of the colour. By pressing the character color key, eight different levels of grey – from black to white, can be selected.

4. To superimpose the title page over a coloured background, press the **INT. SYNC** key on the Vision 500.



The title page will now appear over a coloured background.

Setting the Display Sequence

Programming the Display Sequence

The Vision 500 can automatically display the title pages in sequence in a variety of ways. This chapter will show you the different options available.

Programming

To display the pages of text you will need to input the following information:

1. Starting Page

This is the first page of the sequence.

2. Ending Page

This is the last page of the sequence.

3. Number of repetitions

This is the number of times the sequence will repeat itself.

4. Display Mode

There are 5 ways in which the text is displayed.

Mode 1

The Vision 500 displays one page after another.

Mode 2

The Vision 500 creates the page line by line then moves onto the next.

Mode 3

The Vision 500 displays the pages one line after another at the bottom of the screen.

Mode 4

The Vision 500 scrolls the text line by line along the bottom of the screen from right to left.

Mode 5

The Vision 500 scrolls the pages from bottom to top one page after another.

To see exactly how these operate, we would recommend that you try each one in turn.

5. Display Speed

This is the speed at which the display cycles.

If you want to use display Mode 4, then it is recommended that you fill up a page with continuous text. The Vision 500 will scroll each line of a page even if there is no text on the page, so if you leave blank lines on a page then the Vision 500 will display these blank lines.

NOTE: In display Mode 4 the following character attributes are dictated by the first line of the text to be displayed;

- a) Character mode (regular, outlined or block type).
- b) Character size.
- c) The field background.
- d) Character background.

Regardless of whether the text is more than one page, the above four parameters are fixed by the first line. Any following lines will retain the same features as this first line.

This information is entered in the following sequence:

1. Press the **DISPLAY MODE** key.

2. Press the **DISPLAY SET** key.

3. Type in the number of the starting page:
1-8 (default 1).

4. Type in the ending page:
1 to 8 (default 8).

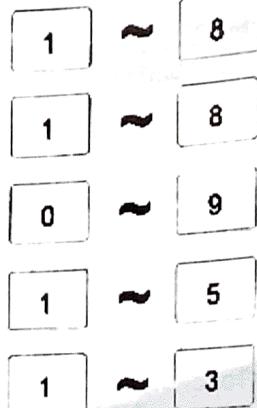
5. Type in the number of repetitions:
0-9 0 = continuous rotation (default 1).

6. Type in the display mode:
1 to 5 (default 1).

7. Type in the display speed:
1 to 3 1 = fastest (default 2).

**EDIT
DISPLAY
MODE**

**DISPLAY
SET**



Example

You want to display pages 1 to 8, 2 times using display mode 4 at the slowest speed 3.

Key in the following:

Press **DISPLAY MODE**

Press **DISPLAY SET**

Type 1

Type 8

Type 2

Type 4

Type 3

Displaying the Programmed Sequence

After you have entered the programming information you are now ready to display it.

1. Press the **DISPLAY START** key.



The Vision 500 will proceed to display the desired pages in the sequence that you programmed in.

NOTE: the **DSP START LED** will be illuminated to show that the sequence has started.



2. To freeze the title page on the screen, press the **DISPLAY PAUSE** key.



NOTE: the **DSP START LED** will flash to show that the display sequence has started.

3. To continue with the display sequence, press the **DISPLAY PAUSE** key again.



4. To stop the display sequence press the **DISPLAY STOP** key.

As the Vision 500 automatically displays the pages in sequence, you can still alter the background colour and select between **INT. SYNC** or **EXT. SYNC** as described earlier in this manual.

NOTE: you cannot alter any of the other characteristics when the Vision 500 is displaying these pages, i.e. character size, colour, type etc.

When you have completed the display sequence, you may wish to return to the title pages to alter them. To do this, select **EDIT MODE** as described on page 8.

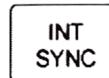
Adding a Title Page to your Production – Example 1

You want to add an opening title page to the beginning of your production. You only want to show one page on a coloured background for a duration of 30 seconds.

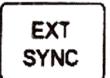
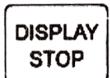
1. Confirm that all of the equipment is connected correctly.
2. Create the title using the **EDIT MODE** as described in this manual. (Use page 1 for this example).
3. Place a blank tape into the recording VCR and put the recording VCR into **RECORD PAUSE**.
4. Press the **INT. SYNC** key to place the title on a coloured background.
5. Press the **DISPLAY MODE** key to enter the programming stage.
6. Press the **DISPLAY SET** key to set the display sequence.
7. Type the following:

The starting page number	1
The ending page number	1
The display cycle	1
The display mode	1
The display speed	3

The title page is now ready to be recorded onto the recording VCR.



8. Press the **DISPLAY START** key to activate the title page and at the same time release **RECORD PAUSE** on the recording VCR.
- NOTE:** If you want the title to remain on the screen for a period of time, press the **DISPLAY PAUSE** key to freeze the page.
9. After 30 seconds, place the recording VCR back into **RECORD PAUSE**.
10. Press the **DISPLAY STOP** key on the Vision 500 to stop the display sequence. You have now recorded the title page for 30 seconds.
11. Press the **EXT. SYNC** key on the Vision 500 so that you can continue to edit the rest of your production.



Adding a Title Page to your Production – Example 2

You want to add an opening title page to the beginning of your production. You only want to show one page superimposed onto one of the scenes for a duration of 30 seconds.

1. Confirm that all of the equipment is connected correctly.
2. Create the title using the **EDIT MODE** as described in this manual. (Use page 1 for this example).
3. Place the source tape into the playback machine, a blank tape into the recording VCR and put the recording VCR into **RECORD PAUSE**.
4. Press the **EXT. SYNC** key to superimpose the title page.
5. Press the **DISPLAY MODE** key to enter the programming stage.
6. Press the **DISPLAY SET** key to set the display sequence.
7. Type the following:

The starting page number 1
The ending page number 1
The display cycle 1
The display mode 1
The display speed 3

8. Locate the beginning of the desired scene and place the playback machine into **PAUSE**.

The desired scene and the title page are now ready to be recorded onto the recording VCR.



9. Press the **DISPLAY START** key to activate the title page and at the same time release **PAUSE** on the playback machine and release **RECORD PAUSE** on the recording VCR.

NOTE: If you want the title to remain on the screen for a period of time, press the DISPLAY PAUSE key to freeze the page.

10. After 30 seconds, press the **DISPLAY STOP** key on the Vision 500 to stop the display sequence.

11. When you have come to the end of the scene, place the recording VCR back into **RECORD PAUSE**.

You now have recorded the title page superimposed over the first 30 seconds of the scene. You can now proceed to edit the other scenes on the original tape as normal.



Adding a Title Page to your Production – Example 3

You want to add a sequence of title pages to your production. You want 8 pages of text to display the end credits scrolling across the bottom of the screen.

1. Confirm that all of the equipment is connected correctly.
2. Create the title using the **EDIT MODE** as described in this manual.
3. Place the source tape into the playback machine and position the copy in the recording VCR. Put the recording VCR into **RECORD PAUSE**.
4. If you want the titles superimposed over the last scene, press the **EXT. SYNC** key to superimpose the title pages. If you want the titles on a coloured background, press the **INT. SYNC** key.
5. Press the **DISPLAY MODE** key to enter the programming stage.
6. Press the **DISPLAY SET** key to set the display sequence.
7. Type the following:

The starting page number 1
The ending page number 8
The display cycle 1
The display mode 4
The display speed 2

8. If you are going to superimpose the titles over a scene, locate the beginning of the desired scene and place the playback machine into **PAUSE**.
The desired scene and the title page are now ready to be recorded onto the recording VCR.



9. Press the **DISPLAY START** key to activate the title page and at the same time release **RECORD PAUSE** on the recording VCR. (If necessary, release **PAUSE** on the playback machine).

NOTE: If you want the title to remain on the screen for a period of time, press the DISPLAY PAUSE key to freeze the page.

10. When the titles have finished and you have come to the end of the scene, place the recording VCR back into **RECORD PAUSE**.

You now have recorded the title pages scrolling at the bottom of the screen over the end of your production. You can now proceed to edit the other scenes on the original tape as normal.



Fading the Scene In and Out

1. Connect up your equipment as described in this manual.
2. Set up the Camcorder and VCR ready to record a scene using the Preview technique.
3. Make sure that the **BYPASS** switch on the Vision 500 is set to "OFF".
4. Make sure that the Vision 500 is set to **EXT. SYNC.**
5. Make sure that the Vision 500 is in the **DISPLAY MODE**.
6. Set the **FADE** slider to the **MIN** position.
7. Start the Camcorder and VCR to record the scene. You can start and stop the titles at any time.
8. As the Camcorder begins to play, move the **FADE** slider to the **MAX** position.
9. The picture and sound (and titles if applicable) will appear on your T.V.
10. As the Camcorder reaches the end of the desired scene, move the **FADE** slider back to the **MIN** position.
11. The picture and sound (and titles if applicable) will now have disappeared leaving you to stop the recording VCR ready for the next scene.
12. Repeat if necessary for the rest of the production.

BYPASS



VIDEO

max

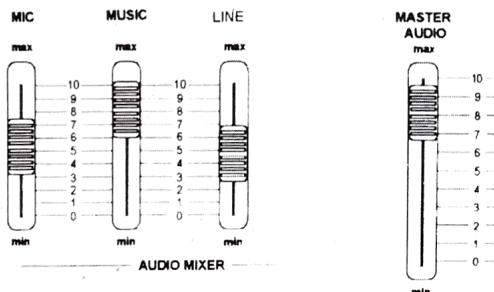


min

Audio Mixing

The three channel mixer allows you to individually control the volume of the playback machine, an external audio source and a microphone.

1. Connect up your equipment as described in this manual.
2. Locate the beginning of the desired scene.
3. Play the scene so that you can visualize the exact beginning and end points.
Note: This is known as Previewing.
4. While you are previewing a scene, adjust the audio controls on the Vision 500 to set the desired mix. Use the preview technique as many times as necessary to help you record the scenes first time.
5. Use the **MIC FADER** to adjust the volume of the microphone.
6. Use the **LINE FADER** to adjust the volume of the playback machine.
7. Use the **MUSIC FADER** to adjust the volume of the external audio.
8. Use the **MASTER FADER** to adjust the overall volume of the whole mix.



Example

You have a tape of the recent Grand Prix. You wish to edit it to make it shorter and more exciting.

1. Use the Preview Technique to note the details of the scene that you wish to record.
2. Use the Vision 500 to set the desired Audio Mix. At this stage you can keep on experimenting as much as you like because nothing is being recorded.
3. Add some dynamic music from your Hi-Fi as a background soundtrack. Adjust the **MUSIC FADER** and the **LINE FADER** to keep the two sounds balanced.
4. Speak into the Microphone and adjust the **MIC FADER** so that you can add your own race commentary.
5. Use the **TONE CONTROL** to alter the tonal balance of the mix to help eliminate the wind noise.
6. When you are satisfied that the Audio Mix is correct, proceed to record the scene.
7. Continue on to the next scene.

As you can see, there are many advantages to using an Audio Mixer in your editing. Remember, you are only limited by your imagination – so experiment and enjoy!

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VISION 500
STEREO VIDEO PROCESSOR
AND TITLER SYSTEM