

1 INTRODUCTION

The Accent Logo Generator and Inserter (Accent Logo) is a single layer logo/image inserter designed for channel identification of component serial digital interface (SDI) video. Housed in a compact 1RU frame, the unit features full 10-bit operation for professional broadcast quality output.

Accent Logo's internal down stream keyer provides clip, gain and transparency controls, as well as linear keying and key masking. Other features include a key invert facility and antialiased keying using key edge re-mapping.

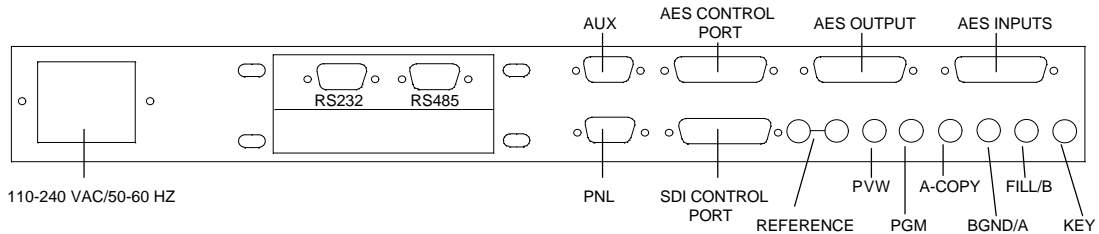
Accent Logo features 'fade to black', and has an optional preview output (SDI or analogue composite PAL/NTSC) to allow users to monitor a range of signals.

The unit is available with a range of remote control solutions, including operation by GPI and analogue fader inputs, as well as by RS232/RS422/RS485 and Ethernet computer ports. Contact Pro-Bel Software Support for details of Serial Control Protocol.

To simplify system installation, the unit has line synchronisers on all inputs and flexible output timing controls for easy synchronisation to the analogue reference or SDI background input. In the event of an input signal failure, the input will switch to its internal colour field generator, maintaining signal integrity. Finally, embedded audio within the background signal will be passed through unaffected.

2 INSTALLATION

The rear panel of Accent Logo has all the necessary video, control and power connections, as shown below:-



BNCs	Function
BGND/A	BACKGROUND SDI VIDEO INPUT
A-COPY	RE-CLOCKED AND RE-EQUALISED SDI COPY OF BGND/A INPUT
FILL/B	SDI VIDEO FILL INPUT (GRAB PORT FILL)
KEY	SDI VIDEO KEY INPUT (GRAB PORT KEY)
PGM	SDI PROGRAMME OUTPUT
PVW	SDI OR ANALOGUE PREVIEW OUTPUT
REFERENCE	ANALOGUE COMPOSITE REFERENCE INPUT ON LOOPING BNCs. THIS IS TYPICALLY 'BLACK AND BURST' BUT MAY CONTAIN PICTURE.

D-Types	Function
SDI CONTROL PORT	CONNECTION FOR GPI AND ANALOGUE FADERS
PNL	CONNECTION FOR OPTIONAL REMOTE CONTROL PANEL
AES INPUTS	AES AUDIO INPUTS (AUDIO MIXER OPTION)
AES OUTPUTS	AES AUDIO OUTPUTS (AUDIO MIXER OPTION)
AES CONTROL PORT	CONNECTION FOR GPIS AND ANALOGUE FADERS (AUDIO MIXER OPTION)
AUX	NOT USED
RS422/485	RS422/485 SERIAL PORT FOR REMOTE CONTROL
RS232	RS232 SERIAL PORT FOR REMOTE CONTROL

Power

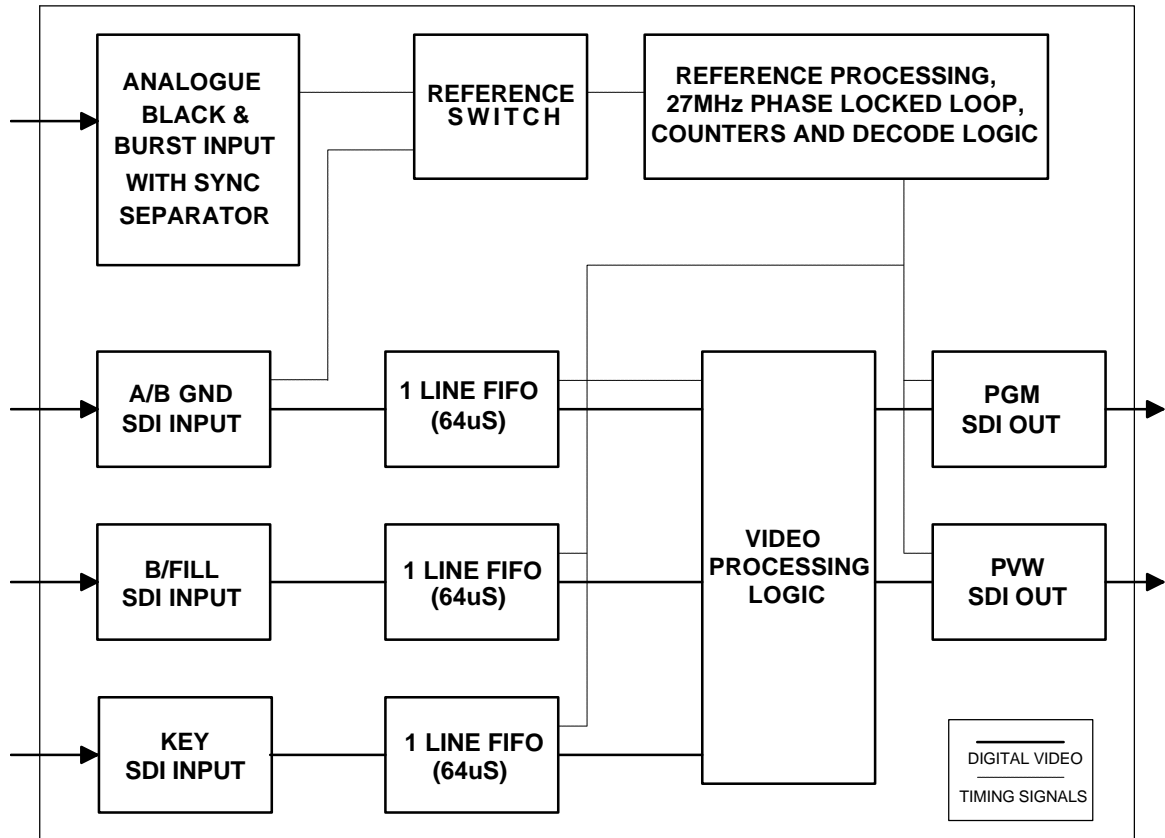
IEC, universal input 110-240V a.c., < 75W, 50-60Hz mains.

Ventilation

When installing the Accent Logo ensure that there is adequate side ventilation.

3 SYSTEM TIMING

In any installation it is necessary to ensure that the inputs to, and outputs from products are within certain timing windows as required by the system as a whole.



Timing Block Diagram

The following procedures describe how to correctly time Accent Logo:-

Reference Source Selection

The user may select either the analogue black and burst input, or the SDI BGnd/A input as a reference source for PGM and PVW output timing.

It is recommended that the user choose black and burst where possible as this ensures that output continuity will be maintained even if the SDI input fails or is switched to another source upstream.

SDI Reference To PGM/PVW Output Timing

If the user chooses to work with the SDI BGnd/A input as a reference then the user has one of two valid adjustment ranges depending on whether or not the optional digital audio-mixer is fitted:

Without audio-mixer: (0 lines and 2.590uS) through (0 lines and 63.899uS)
With audio-mixer: (0 lines and 12.025uS) through (0 lines and 63.899uS)

If the above adjustment ranges are used then the PGM and PVW outputs will be correct, i.e. line 1 on 'video in' will be seen on line 1 of 'video out', and the First In, First Out (FIFO) buffer on the BGnd/A input will be operating within its available window.

If the user is using the Fill/B or Key inputs then these inputs must be checked for their timing position with respect to (w.r.t.) the BGnd/A input. If either signal is early w.r.t. the BGnd/A input then the upper adjustment limit is reduced by the same number of uS as the input signal is early.

If both inputs are early the maximum reduction must be made to the upper adjustment limit.

For example, if the Fill/B input is 5uS early w.r.t. the BGnd/A input then the upper adjustment limit is reduced to:

Without audio-mixer: (0 lines and 2.590uS) through (0 lines and 58.899uS)
With audio-mixer: (0 lines and 12.025uS) through (0 lines and 58.899uS)

Similarly, if either signal is late w.r.t. the BGnd/A input then the lower adjustment limit should be increased accordingly.

For example, if the Key input is 8uS late w.r.t. the BGnd/A input then the lower adjustment limit is increased to:

Without audio-mixer: (0 lines and 10.590uS) through (0 lines and 63.899uS)
With audio-mixer: (0 lines and 20.025uS) through (0 lines and 63.899uS)

Note: If one input is early w.r.t. the BGnd/A input and one input is late w.r.t. the BGnd/A input then both the upper and lower adjustment limits will need to be modified.

Black & Burst Reference To PGM/PVW Output Timing

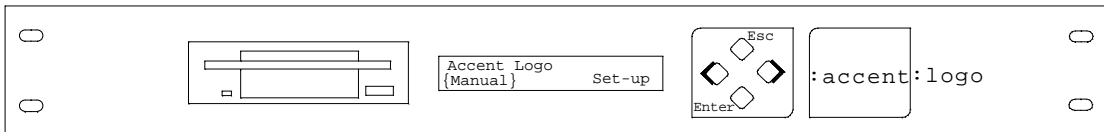
If the user chooses to work with the Black and Burst (B&B) input as reference then the user has a much wider adjustment range of +/- 7 lines, 62.859uS.

Although adjustments are now being made w.r.t. the B&B input (which will be arbitrarily offset w.r.t. the BGnd/A input), it should not be forgotten that the unit is still limited by the 1 line FIFO on each input and therefore the same with/without audio mixer ranges remain valid for both the Fill/B or Key inputs w.r.t. the BGnd/A input.

4 CONTROLS

The Accent Logo can be operated from the front control panel as well as by remote control using the remote control unit, or by GPI and analogue fader inputs. The unit can also be controlled remotely by RS232, RS422 or RS485 links and over Ethernet.

The front control panel comprises a 3.5' floppy disk drive, four control buttons and a back-lit alpha-numeric LCD display, as shown below:-



The logo insertion functions are accessed by using the four control buttons to drive the operating system using a tree-type software menu structure (see diagram). The status of the Accent Logo and the options available to the user are indicated on the LCD display.

Understanding the Front Panel LCD Display

The LCD display is divided into two areas. The upper row of characters indicates the function, and the lower row indicates the configuration or operation options.

The configuration and operation options are indicated in two different ways:-

- When all the options can be displayed simultaneously on the lower row, the current option selected is shown by brackets, as shown below. To change the current selection, use the left and right cursor buttons on the front panel. The brackets will indicate the new selection.

```
Set Reference
{analogue} SDI-BGnd
```

- When all the options cannot be displayed simultaneously on the lower row the current option selected is the only option displayed. Further options can be found to the left and/or right as indicated by arrows, as shown below. To change the current selection, use the left and right cursor buttons on the front panel.

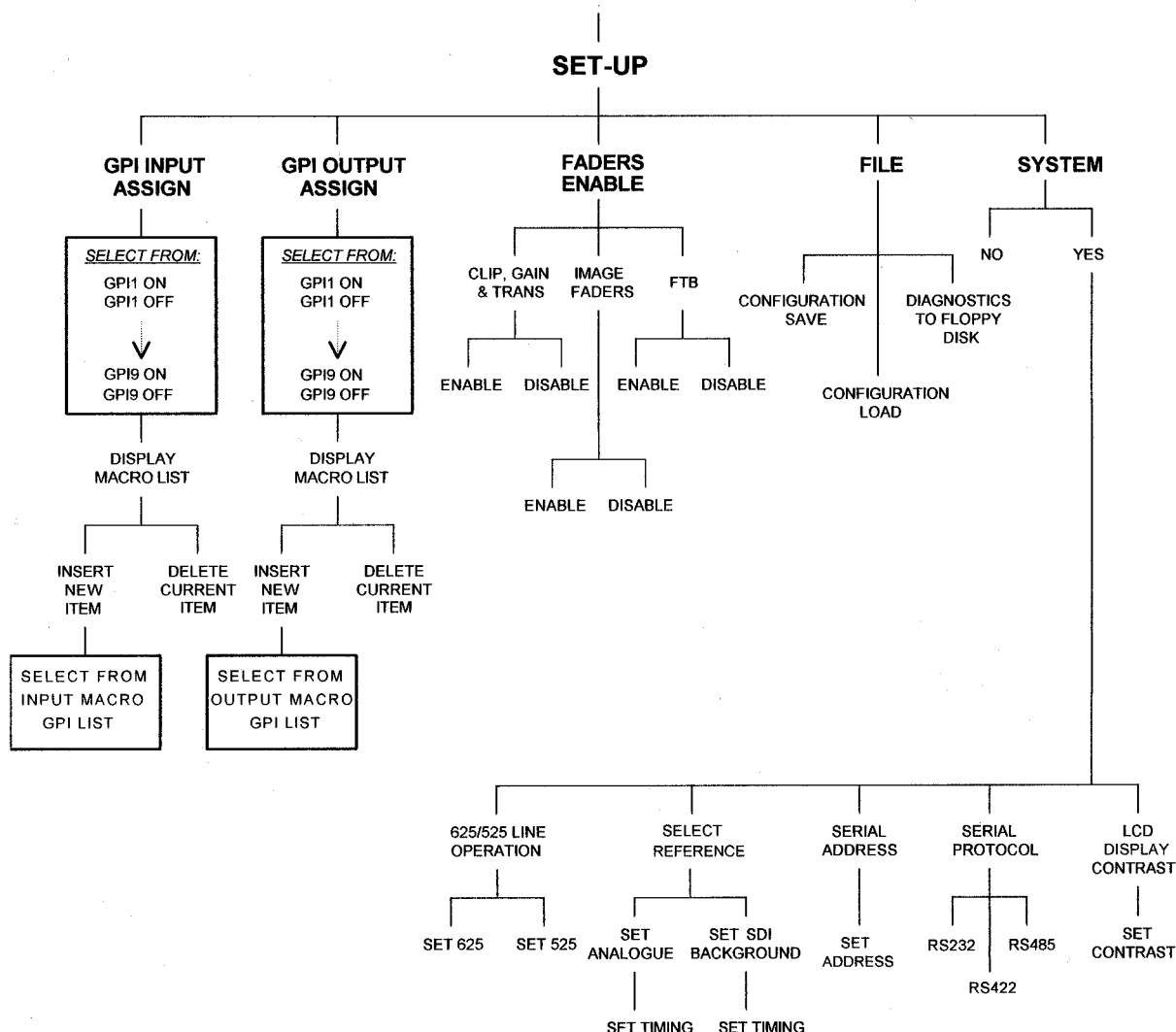
```
Set-up
<GPI outputs assign>
```

Once a new selection has been made, this can be confirmed by pressing the ENTER button. To revert to the original selection press the ESC (escape) button.

The functions of the four control buttons on the front panel are summarised as follows:-

Button	Function
ESC	ESCAPES FROM CURRENT LEVEL OF SOFTWARE MENU TO THE PREVIOUS LEVEL
ENTER	ACCEPTS INDICATED SETTINGS ON SOFTWARE MENU
<	PERMITS THE USER TO CURSOR LEFT ALONG A DISPLAYED MENU BRANCH TO SELECT A FUNCTION. THIS KEY IS ALSO USED TO REDUCE A DISPLAYED VALUE OR SELECT A VARIABLE PARAMETER
>	PERMITS THE USER TO CURSOR RIGHT ALONG A DISPLAYED MENU BRANCH TO SELECT A FUNCTION. THIS KEY IS ALSO USED TO INCREASE A DISPLAYED VALUE OR SELECT A VARIABLE PARAMETER

5 SET-UP



'SET-UP' FRONT PANEL SOFTWARE MENU

When the Accent Logo unit is powered-up, the system menu will automatically start at the top level of the tree. The LCD will display:-

```
Accent Logo ver x.xx
{manual}      set-up
```

Use the right cursor key to select set-up. The display will now show:-

```
Accent Logo ver x.xx
manual      {set-up}
```

Press ENTER and the unit will enter the set-up menu.

The set-up options are:-

- GPI Input Assign**
- GPI Output Assign**
- Faders Enable**
- File (System Information)**
- System Change**

Use the left and right cursor buttons to select the required set-up option.

GPI Inputs Assign

To assign the GPI inputs, select the option {GPI inputs assign}:-

```
Set-Up
GPI inputs assign >
```

Nine GPI inputs are available on the rear of the unit for external control. Each of these GPIs can be programmed with a user-definable macro. Separate macros are available for GPI 'on' and GPI 'off' actions.

To create or edit a macro enter 'GPI inputs assign' from the set-up menu, first select the required GPI number and on-off state. GPIs are arranged GPI 1 on, GPI 1 off, GPI 2 on, GPI 2 off, and so on from left to right. For example to edit GPI 2 on, select 'GPI 2 on' from the menu, use the cursor button to select the following display:-

```
GPI Inputs Assign
<GPI 2 on      >
```

This setting is confirmed by pressing the ENTER button which will then access the macro display level.

If a particular GPI macro is empty, the unit will indicate this in the display, as follows (in this case 'GPI 2 on'):-

```
GPI 2 on      :Macro
NO ACTIONS SET
```


GPIs that already have a macro programmed will enter at the first programmed macro command, such as:-

```
GPI 2 on :Macro
FTB on
```

The cursor buttons can be used to move backwards and forwards through a macro. At the end of the macro list the unit will indicate this with an 'END OF LIST' statement.

```
GPI 2 on :Macro
< END OF LIST
```

Creating and Editing a GPI Macro

To start a new macro make sure that the 'NO ACTIONS SET' indication is shown. Press the ENTER button to access the macro editor which will offer both 'insert' and 'delete' commands.

```
Edit Macro
{insert}      delete
```

Select 'insert' and press ENTER to access the macro editor commands list. The display will then show the full range of macro options available for the GPI inputs (see following pages for a full list of GPI inputs).

```
Macro List Insert
cut up                >
```

To set the first macro command, use the cursor buttons to display your required command and press ENTER. The macro editor will add the command as the first entry to the current macro and jump back up one level to the macro display level. A number of macro commands require an additional step to accept a variable value.

```
Macro List Insert
fade rate=028 frames
```

For example, 'fade rate' above can be set from 000 to 300 frames. The value is set by using the left (-) and right (+) cursor buttons. Once the value is correct, press ENTER to accept the command and return to the macro display level.

Having created a macro the user can exit to the 'GPI Inputs Assign' level by pressing the ESC button.

Alternatively, it is possible to continue adding to and editing the macro.

Additional commands are added in exactly the same way as the first. Because many commands will need to be ordered correctly within the macro list it is important to note the following:-

Before entering the macro editor, the item which you wish to follow the new command should be displayed as the new macro command will be inserted in front of this. For this purpose the 'END OF LIST' statement should be treated as a command.

To delete a macro command, make sure that the unit is at the macro display level. The display should appear as follows:-

```
GPI 2 on      :Macro
FTB off      >
```

Use the cursor buttons to select the command that you wish to remove, then press ENTER to enter the macro editor.

```
Edit Macro
insert      {delete}
```

Select delete and again press ENTER. The unit will now remove the command from your macro and return to the macro display level.

Note: Any macro can contain up to 10 macro commands.

GPI Input Commands

GPI command	Action
CUT UP	CUT UP IMAGE (LOGO)
CUT DOWN	CUT DOWN IMAGE
CUT UP/DOWN	TOGGLE IMAGE UP AND DOWN USING CUT
FADE UP	FADE UP IMAGE
FADE DOWN	FADE DOWN IMAGE
FADE UP/DOWN	TOGGLE IMAGE UP AND DOWN USING FADE
FTB ON	TURN 'FADE TO BLACK' ON
FTB OFF	TURN 'FADE TO BLACK' OFF
FTB ON/OFF	TOGGLE 'FADE TO BLACK' ON AND OFF
GRAB	RECORD A SINGLE FRAME FROM THE FILL AND KEY INPUTS INTO THE PREVIEW/PLAYOUT STORE
BGND: SDI	SET BACKGROUND INPUT TO SDI SOURCE
BGND: COLOUR	SET BACKGROUND INPUT TO COLOUR FIELD GENERATOR
BGND: SDI/COLOUR	TOGGLE BACKGROUND INPUT BETWEEN SDI SOURCE AND COLOUR FIELD GENERATOR
FADE RATE = NNN	SET FADE RATE TO 'NNN' FRAMES
FTB RATE = NNN	SET 'FADE TO BLACK' RATE TO 'NNN' FRAMES
ENABLE FADER	ENABLE IMAGE FADER
DISABLE FADER	DISABLE IMAGE FADER
EN/DIS FADER	ENABLE/DISABLE IMAGE FADER
ENABLE FTB FADER	ENABLE 'FADE TO BLACK' FADER
DISABLE FTB FADER	DISABLE 'FADE TO BLACK' FADER
EN/DIS FTB FADER	ENABLE/DISABLE 'FADE TO BLACK' FADER
ENABLE CGT FADER	ENABLE CLIP, GAIN & TRANSPARENCY FADERS
DISABLE CGT FADER	DISABLE CLIP, GAIN & TRANSPARENCY FADERS
EN/DIS CGT FADER	ENABLE/DISABLE CLIP, GAIN & TRANSPARENCY FADERS

GPI Outputs Assign

To assign the GPI outputs, select the option {GPI outputs assign}.

```
Set-up
GPI outputs assign >
```

The first seven of the nine rear panel GPIs can be used as outputs for triggering external equipment. Each of the GPI outputs can be programmed to be triggered by one event which is selected from the GPI outputs list (see following pages for a full list of GPI outputs). Separate macros are available for GPI 'on' events and GPI 'off' functions.

To change the trigger event for a GPI output, enter 'GPI outputs assign' from the set-up menu. Next select the required GPI number and on-off state. GPIs are arranged GPI 1 on, GPI 1 off, GPI 2 on, GPI 2 off, and so on from left to right. For example to edit GPI 2 on, select 'GPI 2 on' from the menu using the cursor buttons. The display should show:-

```
GPI Outputs Assign
<GPI 2 on
```

This setting is confirmed by pressing the ENTER button which will then display the current trigger event selection.

If the particular GPI has no trigger event selected, then the unit will indicate this in the display, as follows:-

```
GPI 2 on      :Event
<NOT DEFINED
```

The cursor buttons can now be used to move backwards and forwards through the list of possible trigger events, for example:-

```
GPI 2 on      :Event
<loss of reference >
```

Once the desired trigger event is displayed, it can be stored by pressing the ENTER button. Alternatively, to leave without affecting the previous setting, press ESC.

GPI Output Commands

GPI Command	Action
IMAGE BUSY	IMAGE LIBRARY IS LOADING/SAVING TO/FROM STORE
IMAGE READY	IMAGE LIBRARY IS NOT LOADING/SAVING TO/FROM STORE
KEYER AT OFF	IMAGE KEYER IS TURNED OFF
KEYER AT ON	IMAGE KEYER IS TURNED ON
KEYER FTB AT OFF	'FADE TO BLACK' IS TURNED OFF
KEYER FTB AT ON	'FADE TO BLACK' IS TURNED ON
KEYER FADER DISABLED	IMAGE FADER IS DISABLED
KEYER FADER ENABLED	IMAGE FADER IS ENABLED
FTB FADER DISABLED	'FADE TO BLACK' FADER IS DISABLED
FTB FADER ENABLED	'FADE TO BLACK' FADER IS ENABLED

Faders Enable

A number of external analogue faders can be used to operate the unit. These faders are divided into three groups:-

Clip, Gain and Transparency

Image Faders

Fade To Black (FTB)

Each of the groups can be independently 'enabled' to permit external fader control, or 'disabled' to prevent external fader control.

For example, to enable the clip, gain and transparency faders select 'faders enable' from the set-up menu, as shown below:-

```
Set-up
< faders enable >
```

Press ENTER to enter the 'faders enable' menu, as shown:-

```
Faders Enable
clip, gain & trans >
```

Press ENTER once more to select 'clip, gain and transparency'. The unit now offers the following menu:-

```
CG&T Faders
disabled {enabled}
```

Select 'enabled' and press ENTER. The fader group is now enabled and the unit will return to the 'faders enable' menu.

File Facilities

Four different floppy disk drive (FDD) file facilities are available on the unit, namely:-

- **Configuration Save**

Saves the current configuration information to a floppy disk located in the front panel 3.5" FDD for use in other units or to be saved in a configuration library. If no floppy disk is inserted the configuration information is saved in internal storage and is automatically re-loaded at power-up.

Configuration information includes mode of operation, reference source and timing settings, 625/525 setting, GPI macros, colour field settings and fade rates.

- **Configuration Load**

Loads new configuration information from a floppy disk located in the front panel 3.5" FDD.

- **Diagnostics To FDD**

Saves diagnostic information as printable ASCII text to a floppy disk located in the front panel 3.5" FDD. The file is called SYSTEM.LST.

- **Program Load**

Used to load Pro-Bel software up-grades supplied on 3.5" floppy disk.

The first three facilities are accessed via the front panel described below. To use the program load facility for software up-grades see the attached information that is supplied with the up-grade.

To access the file facilities, select 'file' from the set-up menu, as shown below:-

```
Set-up
<      file      >
```

Press ENTER to enter the 'file' menu, as shown:-

```
File
configuration save >
```

Select the facility your require and press ENTER to action. Whilst the disk is being accessed the unit will confirm the operation on the front panel display:-

```
CONFIGURATION SAVE
saving
```

System Change

Five system parameters can be adjusted, these are:-

- **625/525 Line**

Changes between component 625 and component 525 line operation.

- **Select Reference**

Selects between an external analogue black and burst reference signal (present on the rear panel 'REFERENCE' input) and the SDI BGnd/A video input as the timing reference.

In view of the importance of the system parameters, an additional access level is incorporated to prevent accidental changes. To change any of the system parameters, select 'system change' from the set-up menu, as shown below:-

```
Set-up
< system change >
```

Press ENTER to enter the 'system change' menu, as shown:-

```
System Change!
NO                {YES}
```

Select YES and press ENTER once more to gain full access to system parameter adjustments, as shown:-

```
System Set-up!
< select reference
```

Select the system parameter to be changed and press ENTER to confirm. For example, to change the reference source, choose 'select reference' from the menu and press ENTER. The unit will display the following:-

```
Reference Input
{analogue} SDI-BGnd
```

Select the reference input required and press ENTER to confirm.

```
SDI out WRT BGnd
0 lines +2.590uS
```

Select the timing of the SDI output relative to the chosen reference and press ENTER to confirm.

The SDI input FIFO registers have a delay adjustment of 2.590us to approximately one television line. (Minimum delay is 12us if the optional audio mixer is fitted). If SDI-BGnd is chosen as the reference, setting the output timing to $\pm 1/2$ line relative to the input allows a spread or variation in input timing of $\pm 1/2$ line with no change in output timing. If the spread and stability is closer than this, the fixed delay can be decreased.

The analogue reference has a much larger adjustment range (± 8 lines). This is to compensate for differences between the SDI inputs and the reference. The range of video path delay adjustment is identical to the SDI reference case. If the user attempts to go outside this range the picture will not be positioned in the correct vertical position on the raster.

- **Serial Address**

Selects an address for RS485 serial protocol.

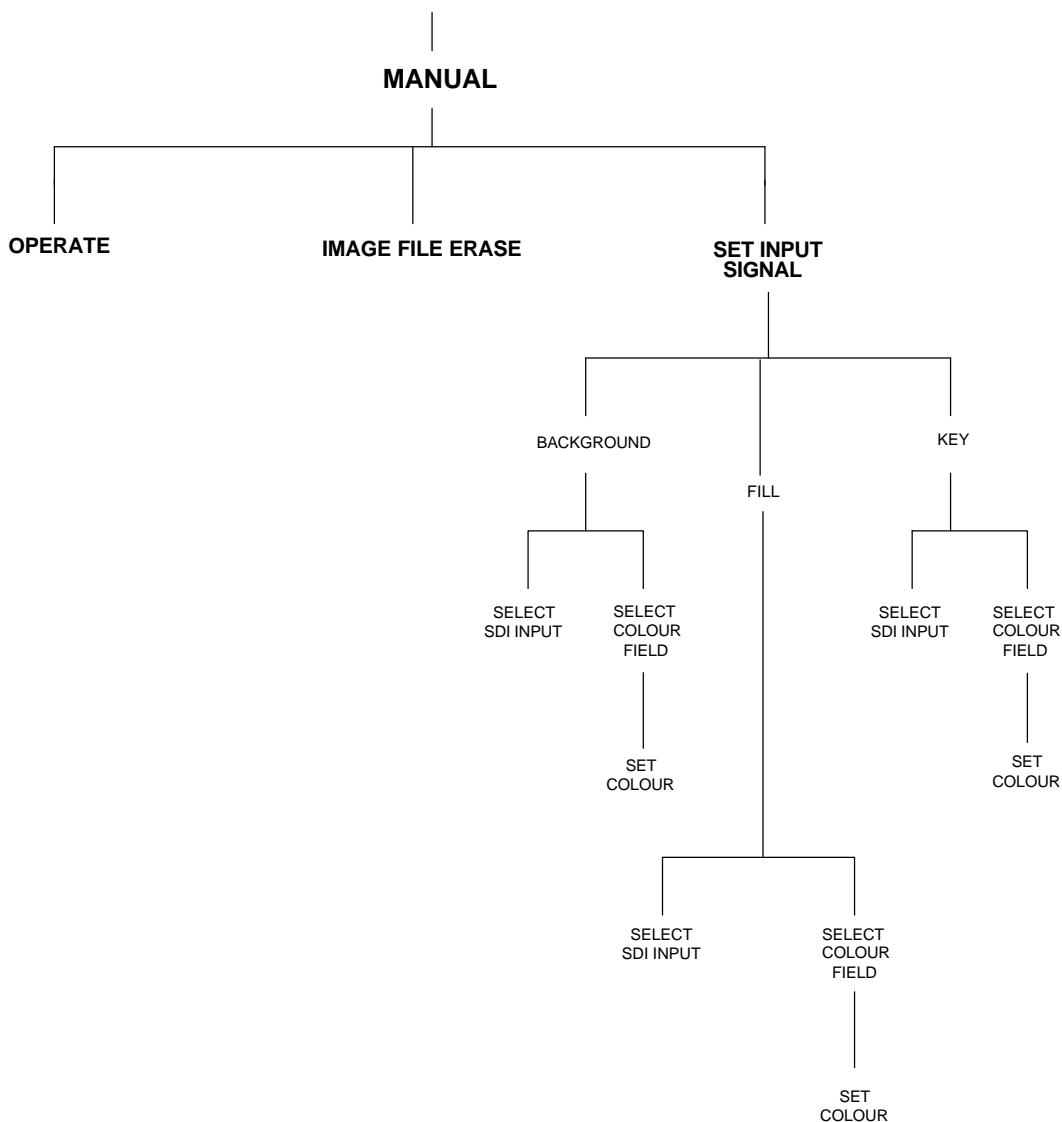
- **Serial Protocol**

Selects RS232, RS422 or RS485 protocol.

- **LCD Contrast**

The front panel LCD's bright contrast can be adjusted by entering the 'LCD display' option.

6 INPUT SIGNAL SELECTION



'SET INPUT SIGNAL' FRONT PANEL SOFTWARE MENU

Each of the three SDI inputs can be set to external SDI video or to its internal colour field generator (CFG). The CFG for each of the inputs is totally independent and all three CFGs can be set to different colours. The CFG can be useful if, for example, a user wants to key a page of text over a coloured background but does not have a suitable background available externally.

To set an input source, starting at the top level of the menu, select 'manual' as shown:-

```
AccentLogo ver x.xx
{manual} set-up
```

Then select 'set i/ps':-

```
Manual Override
operate {set i/ps}
```

Choose the input that you intend to change:-

```
Input Signal Set
{A/BGnd} B/Fill Key
```

Select the input source:-

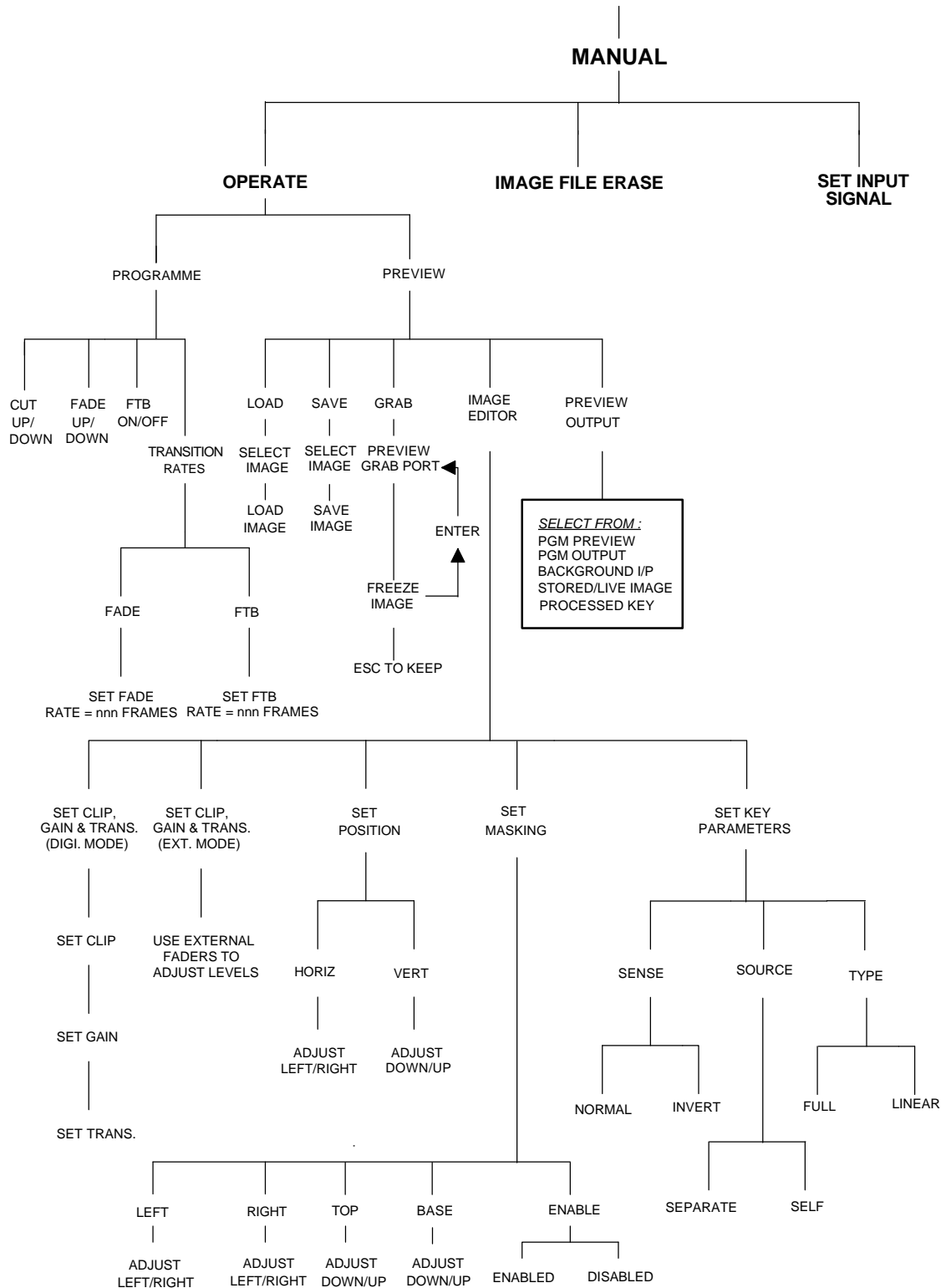
```
A/BGnd Input Set
SDI video {colour}
```

Selecting 'SDI video' will take the user back to the 'Input Signal Set' menu. If 'colour' is selected the user will be invited to adjust each of the red, green and blue component levels in turn, such as:-

```
Colour Field: Red
0 <- 77% -> 100
```

To adjust each of the three colour levels, use the cursor buttons. Press ENTER to confirm a change in level, or press ESC to leave unchanged. The unit will then present the level of the next colour, until all three have been shown.

7 LOGO INSERTION OPERATION



'OPERATE' FRONT PANEL SOFTWARE MENU

The Accent Logo has both 'preview' and 'programme' operations. Operations under 'preview' are for previewing and editing images before committing to air, whilst 'programme' operations are used for directly affecting the programme output.

If the logo inserter is 'on-air', any changes to the image (e.g. image movement) will be seen on both programme and preview outputs! Units which do not have the optional preview output, will have to have any image changes monitored using the programme output.

The unit has two types of store. The first is the video playout store which holds an image ready for keying. It is this image which is viewed on the programme and preview outputs.

In addition, the archive store provides long term storage for up to ten images provided that their combined size (after masking) is less than or equal to the area of one television frame. Image 0 is automatically loaded into the playout store on power-up but will not be faded up to air.

Preview Operations

The following preview operations are available:-

Load Image
Save Image
Grab Image
Image Editor
Preview Output Set

To operate any of the above functions, start at the top level of the menu, select 'manual' as shown:-

```
Accent Logo ver  x.xx  
{manual}      set-up
```

Then select 'operate':-

```
Manual Override  
operate >
```

Finally select 'preview':-

```
Accent Logo Operate  
programme {preview}
```

Use the left and right cursor buttons to select the required operation.

Load Image

'Load image' enables the user to load the internal video store with an image stored on floppy disk or stored in the internal archive store. Once loaded, the image can be edited and stored or used immediately without change.

In addition to the keying of stored images, units with the grab port option can use the 'Live Input' function to key signals presented on the grab port, fill and key inputs. This mode of operation can be extremely useful for keying external video signals such as moving images from a character generator.

An image which is loaded, will be placed into the unit's internal video store and will automatically overwrite the previous image. If the unit is 'on-air', the load operation will be seen on the programme output.

To load an image, select 'load image' from the 'Operate Preview' menu, as below:-

```
Operate Preview
<   load image   >
```

Press ENTER and select the required source for the image to be loaded, for example:-

```
Load Image
<   load from FDD   >
```

Press ENTER again and the unit will begin to load the image:-

```
LOAD IMAGE
loading
```

Once the image has loaded further images can be loaded by making a new selection and pressing ENTER once more. To exit 'load image', press ESC. Unlike normal use, pressing ESC will not return the unit to its previous state and the new image will be maintained.

One of the ten archived images can alternatively be selected by its image number.

Live keying is achieved by selecting the 'Live Input' option from the 'Load Image' menu. The unit will then key the signals presented on the fill and key inputs instead of an image. To escape from this mode of operation, load an image in the normal way, as described above.

Accent Logo offers users the ability to load images in TARGA and other file formats. For information on this facility see section 9.

Save Image

'Save image' enables the user to save the image currently in the internal video store on to floppy disk or into the internal archive store. Floppy disks should be MS-DOS formatted. If necessary key and fill will be saved on separate floppy disks.

To save an image, select 'save image' from the 'Operate Preview' menu, as below. The unit will then prompt the user to choose 'save whole' or 'masked'.

```
Operate Preview
<      save image      >
```

Press ENTER and select the required destination for the image to be saved to, for example:-

```
Save Image
<      save to FDD     >
```

The image can be saved in one of the ten archive locations by choosing the appropriate image number. Press ENTER again and the unit will begin to save the image:-

```
SAVE IMAGE
saving
```

Once the image has been saved further images can be saved by making a new selection and pressing ENTER once more. To exit 'save image', press ESC. Unlike normal use, pressing ESC will not return the unit to its previous state and the saved image will be maintained.

There is an aggregate memory limit of one television frame for the ten archived logos. If a user attempts to save a logo which would exceed this limit the message 'save fail' is displayed. Further memory can be released by using the 'Image File Erase' menu.

Grab Image

'Grab image' enables users whose units have the optional grab port fitted to load the internal video store directly from the external fill and key inputs. Once loaded, the image can be edited and stored or used immediately without change.

An image which is grabbed, will be placed into the unit's internal video store and will automatically overwrite the previous image. If the unit is 'on-air', the grab operation will be seen on the programme output.

To grab an image, select 'grab image' from the 'Operate Preview' menu, as below:-

```
Operate Preview
<      grab image     >
```

Press ENTER and the unit will display the grab port's fill input on the preview output. The display will show:-

```
GRAB IMAGE
preview image
```

Press ENTER again and the unit will freeze the image.

```
GRAB IMAGE
image frozen
```

To grab another image, press ENTER once more and the unit will return to the 'preview image' state. Grabbing can now be continued until the required image is obtained by cycling through the above two steps.

When the desired image has been grabbed, the user can exit the grab image mode by pressing ESC. Unlike normal use, pressing ESC will not return the unit to its previous state and the new image will be maintained.

Image Editor

The image editor enables an operator to adjust a number of parameters, all of which affect the visual appearance of the image. Once changed, the image can be used immediately or saved for later use.

Four groups of image editor parameters can be changed:-

Clip, Gain and Transparency
Set Position
Set Masking
Key Parameters

To change any of the parameters covered by these four groups, select 'image editor' from the 'Operate Preview' menu, as below:-

```
Operate Preview
<   image editor   >
```

Press ENTER and select the required operation.

Clip, Gain And Transparency

To alter clip, gain and transparency levels, ensure that you have 'clip, gain & trans' selected from the 'Image Editor' menu, as below:-

```
Image Editor
clip, gain & trans   >
```

Press ENTER once more and the unit will display the current clip level:-

```
Adjust Clip Level
0 <- 0001 -> 1023
```

Use the cursor buttons to adjust the clip level and press ENTER to confirm. To leave unadjusted, press ESC. The unit will then cycle through gain and transparency adjustments before returning to the 'Image Editor' menu.

If the external faders for clip, gain and transparency are enabled then the unit will not offer front panel level setting, and will instruct the user to use the faders.

Set Masking

It is not necessary to key the entirety of an image. An image can be cropped by using the 'set masking' facility. When setting up a mask, the unit will attenuate the area of picture which will not be displayed by 50%. Left, right, top and bottom masks can be brought in from each of the sides to create a 'display' area, similar to the 'barn-door' principle used in lighting.

To mask an image, ensure that you have 'set masking' selected from the 'Image Editor' menu, as below:-

```
Image Editor
<   set masking   >
```

Press ENTER and the unit will display the following:-

```
Set Masking
{position}  invert
```

To set the positions of each of the masks, select 'position' and press ENTER:-

```
Mask Position
<      left      >
```

Then select the mask to be positioned and press ENTER:-

```
Left Mask Position
*use cursor buttons*
```

Use the cursor buttons to adjust the position of the selected mask. Once positioned, press ENTER to confirm. To leave unadjusted, press ESC.

The mask action may be enabled or disabled by the 'image masking enable' function'.

```
Image Masking
{Enabled}  Disabled
```


Set Position

To adjust the position of an image, ensure that you have 'set position' selected from the 'Image Editor' menu, as below:-

```
Image Editor
<  set position  >
```

Press ENTER once more and select horizontal or vertical positioning:-

```
Set Position
{horiz}      vert
```

Whilst viewing the preview output, use the cursor buttons to adjust the positioning of the image:-

```
Move Horizontal
left <-  :  -> right
```

Finally press ENTER to confirm the change of position. To reset to the previous position, press ESC.

Key Parameters

Three key signal parameters can be set:-

- **Sense**

Allows the key signal to be used normal or inverted.

- **Source**

Selects between using a separately stored key signal or an internal key signal derived from the stored picture image.

- **Type**

Selects between 'full' or 'linear' keying modes.

'Full key' sums the background (with the key signal removed) to the fill. The fill is only passed where the key signal is present. This mode is used when the background area of the fill input is not black.

'Linear key' sums the background (with the key signal removed) to the fill. The fill is not affected by the key. This mode is used with, for example, character generators which provide anti-aliased characters over a black background.

To alter any of the above key parameters, ensure that you have 'key parameters' selected from the 'Image Editor' menu, as below:-

```
Image Editor
< key parameters
```

Press ENTER and the key parameters will be displayed as shown below:-

```
Set Key Parameters
{sense} source type
```

Select the parameter that you wish to change and press ENTER to show the current setting. For example, key sense parameters are shown below:-

```
Key Sense
normal {invert}
```

Choose the required setting and press ENTER to confirm. To leave unadjusted, press ESC. The unit will then return to the 'Set Key Parameters' menu.

Preview Output

Accent Logo has an optional preview output. Where fitted, the signal sent to this output (marked PVW) can be selected from a number of sources, these are:-

- Programme Preview**
- Programme Output**
- Background Input**
- Stored/Live Image**
- Processed Key**

To select a new source for the preview output, ensure that you have 'preview output set' selected from the 'Operate Preview' menu, as below:-

```
Operate Preview
<preview output set
```

Press ENTER and select the required source from the 'Preview Output Set' menu. For example, programme preview is shown ready for selection in the display below:-

```
Preview Output Set
  PGM preview      >
```

Press ENTER to confirm selection, or to leave unadjusted, press ESC. The unit will then return to the 'Operate Preview' menu.

Programme Operations

The following programme operations are available:-

Cut Up/Down
Fade Up/Down
Fade to Black On/Off
Transition Rates

To operate any of the above functions, start at the top level of the menu, select 'manual' as shown:-

```
Accent Logo ver  x.xx  
{manual}      set-up
```

Then select 'operate':-

```
Manual Override  
operate >
```

Finally select 'programme':-

```
Accent Logo Operate  
{programme}  preview
```

Use the left and right cursor buttons to select the required operation.

Cut Up/Down

To action a keyer cut up or down, ensure that you have 'cut up/down' selected from the 'Operate Programme' menu, as below:-

```
Operate Programme  
cut up/down >
```

Press ENTER and the operation will take place immediately. The display will not change and the unit will be ready to perform further cut up/down operations using the ENTER button.

Fade Up/Down

To action a keyer fade up or down, ensure that you have 'fade up/down' selected from the 'Keyer Operate' menu, as below:-

```
Operate Programme  
< fade up/down >
```

Press ENTER and the operation will take place immediately. The display will not change and the unit will be ready to perform further fade up/down operations using the ENTER button.

Fade To Black On/Off

To action a 'fade to black on/off' ensure that you have 'FTB on/off' selected from the 'Keyer Operate' menu as below:-

```
Operate Programme
< FTB on/off >
```

Press ENTER and the operation will take place immediately. The display will not change and the unit will be ready to perform further 'fade to black on/off' operations using the ENTER button.

Transition Rates

'Keyer Fade' and 'Fade To Black' transition rates can be adjusted. To adjust a transition rate, ensure that you have 'transition rates' selected from the 'Operate Programme' menu, as below:-

```
Operate Programme
< transition rates >
```

Press ENTER, and select the transition rate that you intend to change, as shown:-

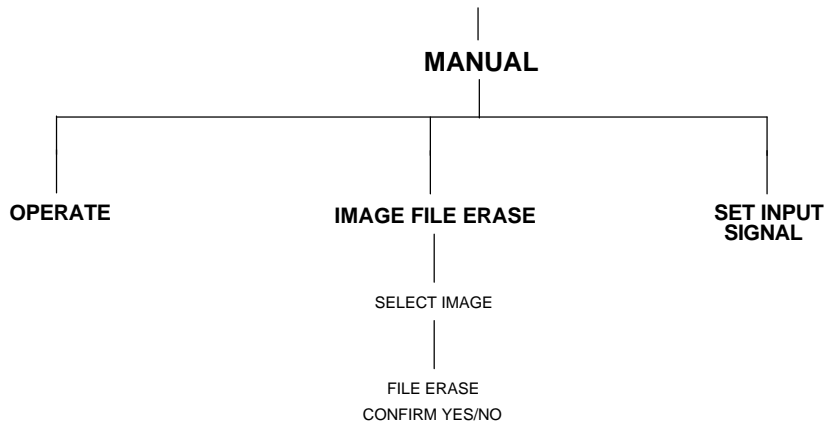
```
Adjust Rates
{fade} FTB
```

Press ENTER once more and the unit will display the current transition rate:-

```
Fade Rate
rate = 028 frames
```

Use the cursor buttons to adjust the transition rate and press ENTER to confirm. To leave unadjusted, press ESC and the unit will return to the 'Adjust Rates' menu.

8 IMAGE FILE ERASE



The facility is provided to erase image files thus freeing memory for further logos.

To operate start at the top level of the menu and select 'manual' as shown:-

```

Accent Logo ver x.xx
{manual} set-up
  
```

Then press > to select 'image file erase'.

```

Manual Override
< image file erase >
  
```

Then press ENTER and then select the image number to be erased.

```

Image File Erase
< image 6 >
  
```

Press ENTER and select YES or NO to confirm or cancel erasure.

```

FILE ERASE CONFIRM
{NO} YES
  
```

9 LOADING TARGA IMAGE FILES (.TGA)

Facilities are provided to allow Accent Logo to load files in Targa format. The following information describes the way in which the files should be prepared.

Targa files come in several different internal formats, some with palettes, and some without. All Targa file types may be compressed using run length encoding. The standard name extension for a Targa file is .TGA. Accent Logo can load the following types of Targa file:-

- 8 bit compressed with Palette.
- 8 bit uncompressed with Palette.
- 16 bit compressed without Palette.
- 16 bit uncompressed without Palette.
- 24 bit compressed without Palette.
- 24 bit uncompressed without Palette.

In order to be able to load a Targa file into the unit it is not necessary to produce a file with the Targa version 2.0 extensions.

In order to be loaded into the unit, a Targa image may have a maximum horizontal size of 768 pixels and a maximum vertical size of 576 pixels. If a palette is used it must contain less than 256 entries.

Pixels taken from the Targa file are mapped with the horizontal spacing of the SDI 13.5 MHz 'Y' pixels. They are mapped vertically onto contiguous lines on alternate fields.

The Targa image(s) should be placed on a standard 1.44Mb floppy drive. The image data should be in a file called IMAG.TGA. If there is any key information this should be in a file called KEY.TGA.

Both files may be loaded from the same disk at the same time. If they do not both fit onto one floppy disk then they may be loaded consecutively from two separate disks. In this case the IMAG.TGA file must be loaded first.

Compressed files take considerably longer to load than uncompressed so wherever possible uncompressed files should be used.

The normal method of image loading is also used to load Targa files. The process of loading a Targa file starts with copying the file from the floppy disk into a temporary file in the unit. During this copying process no image is written to the screen.

Converting to TARGA from Other Image Formats

There is a good shareware program called Paint Shop Pro which may be used to convert images to Targa format from most other non-vector formats. Pro-bel Targa software works with all the Targa file types which Paint Shop Pro produces.

10 HARDWARE INTERFACE

Control Ports (Faders and GPI)

Two control ports exist, the SDI CONTROL PORT and the AES CONTROL PORT. The AES port is only for units with the digital audio mixer option fitted. The SDI port connects faders and GPIs to the unit. The control port is a 25 way female 'D' type connector and is pinned as follows:-

Pin	Function
1	RESERVED
2	RESERVED
3	ANALOGUE FADER - SPARE
4	ANALOGUE FADER - SPARE
5	ANALOGUE FADER - SPARE
6	ANALOGUE FADER - MAIN FTB
7	ANALOGUE FADER V+ OUT
8	GPI +12V OUT
9	GPI 8
10	GPI 6
11	GPI 4
12	GPI 2
13	GPI GROUND
14	RESERVED
15	ANALOGUE FADER GROUND
16	ANALOGUE FADER - TRANSPARENCY
17	ANALOGUE FADER - GAIN
18	ANALOGUE FADER - CLIP
19	ANALOGUE FADER - MAIN FADE
20	N/C
21	GPI 9
22	GPI 7
23	GPI 5
24	GPI 3
25	GPI 1

Analogue faders are used to control a number of system variables. In order to use the fader input pots should be connected between the ANALOGUE FADER V+ and ANALOGUE FADER ground. Pots should be greater than 20kRΩ and screened cable should be used. The screen should be connected to the ANALOGUE FADER GROUND at the Accent Logo end of the cable and nowhere else. Analogue fader signals must be wired such that extraneous signals are less than 1mV. Ground loops should be avoided.

GPI signals GPI 1 to GPI 7 can be inputs or outputs whilst, GPI 8 and GPI 9 are inputs only. When used as inputs, the GPIs are activated by pulling to GPI ground. When used as outputs the signals are internally pulled to ground with a darlington transistor (0.7v saturation voltage).

Lamps or relays may be driven from the GPI +12V supply. from which a total of 500mA may be drawn. Where relays are driven, reverse diodes should be connected across the relay to catch switch off transients.

PNL (Control Panel)

The PNL connection is used to connect some remote control panels. This is a 9 way female 'D' type. The pinouts are as follows:-

Pin	Function
1	GND
2	DATA A-
3	DATA B+
4	0V OUT
5	GND
6	GND
7	DATA A+
8	DATA B-
9	+12V OUT

RS232

RS232 signals are taken from the control card. These conform to the pinouts expected from an IBM PC 9 way male 'D' type serial port. These are as follows:-

Pin	Function
1	DCD
2	RX
3	TX
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

RS422/485

RS422/485 signals are taken from the control card. These are carried on a 9 way male 'D' type and are pinned as follows:-

Pin	Function
1	TX-
2	TX+
3	RX+
4	RX-
5	GROUND
6	RTS-
7	RTS+
8	CTS+
9	CTS-

11 SPECIFICATION

Serial Inputs	Type:	Component SDI 270 MHz to SMPTE 259M-C (BNC)
	Return loss:	>15dB 5MHz to 270MHz
	Equaliser:	Adaptive automatic for cable up to 250m (typical). Belden 8281 type or equivalent coaxial cable
Serial Outputs	Type:	Component SDI 270MHz to SMPTE 259M-C (BNC)
	Return loss:	>15dB 5MHz to 270MHz
	Amplitude:	800mV ±10%
	Risetime:	Between 0.4ns and 1.2ns, 20-80%
	Copy feed:	Fully equalised and regenerated
Analogue Reference Video Input	Signal:	PAL, NTSC or component analogue video with syncs (high impedance looping BNC)
Analogue Preview Video Output (Optional)	Signal:	1 volt p-p analogue PAL or NTSC video, 75Ω (BNC)
Power	Type:	110-240V a.c. <75 watts, 50-60Hz mains supply
	Fuse:	2 amp, slow blow HRC (20mm)
Environment	Operating temp:	0°C to 40°C
	Storage temp:	-10°C to 70°C
	Humidity:	20°C to 80°C non-condensing
Mechanical	Height:	44mm (1.75")
	Width:	482mm (19.0") 442mm (17.5") excluding mounting ears
	Depth:	442mm (17.5") 423mm (16.75") excluding rear connectors
	Weight:	7.0Kg (9.0Kg boxed)

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WARRANTY PERIOD

Hardware Products

Hardware Products are warranted for a period of two years from the date of shipment. During this period Pro-Bel, at its discretion, will repair or exchange products proved to be defective providing that the products are returned to Pro-Bel, carriage pre-paid. The Company will use its best efforts to ensure that returned items are repaired and despatched within ten working days of receipt. Third party items, including PC hardware or any outsourced equipment is limited to the original manufacturers warranty, typically one year.

Software Products

Software Products are warranted for a period of ninety days from the date of shipment. During this period Pro-Bel undertakes to rectify products proved not to conform to the published specification provided with the product, when used in accordance with PC hardware and operating systems approved by Pro-Bel.

Loans

Within the warranty period, the Company will, at its discretion and subject to availability, provide loan units pending the repair of returned items. Loans are offered on a no charge basis providing that the loan units are returned to Pro-Bel within a period of twenty one days following the date of despatch of the repaired items. In the event that the loan units are not returned within this period, the loan units will be subject to a monthly overdue charge, details of which are available on request. Carriage charges apply to all loans.

NON WARRANTY PERIOD

Outside the stated warranty period, the Company will use it's best endeavours to rectify equipment failures through the provision of spare parts or in house repair services.

Loan units may also be provided subject to availability. All services and carriage costs are subject to a scale of charges, details of which are available on request.