VIDEO PROJECTOR

USER AND INSTALLATION
MANUAL

SVP 310
SVP 350
SVP 350UK

by SIM2 MULTIMEDIA

1 · WARNINGS

CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRICAL SHOCK,
AFTER REMOVE THE COVER UNPLUG THE POWER CABLE
ON REAR PANNEL

NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONAL

FEDERAL COMMUNICATION COMMISSION (F.C.C. STATEMENT)

This equipment has been tested and found to comply with the limits for Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. this equipment generates, and uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which cause the user will be required to correct the interface at his own response.

ATTENTION

Before operating this projector, please read this manual carefully and completely. This manual will provide you with the basic instructions for operation of the projector. Installation, preliminary adjustments and procedures which require the opening of the projector and contact with electrical components should be performed by service personnel. For continued safe and reliable operation, use only cables supplied by the manufacturer for power. Adhere to all notes and warnings.

MAIN POWER

Main power: 90-270 V~ · 48-62 Hz

Absorb current max: 2 A

For the SVP 350 UK: main power 240 (-20 +10%) V~ · 48-62 Hz

Absorb current max: 1.2 A

1.1 · SAFETY AND REGULATIONS

A) SAFETY - conform to:

EN 60950: safety requirements for mains operated electronic and related apparatus for hosehold an similar general use

German Law (RoV) - 1987: X-ray emission

USA Code of Federal Regulations: X-ray emission

Title 21 (21CFR)

B) ELECTRO MAGNETIC COMPATIBILITY - conform to:

EN 55013 + A12: radio disturbance characteristics of broadcast receivers and associated equipement

EN 55022: electromagnetic immunity of broadcast receivers and associated equipement

EN 60555-2: limits for harmonic current emission

EN 61000-3-3: voltage fluctuations

AVERTISSEMENT

SIM2 MULTIMEDIA
DÉCLINE TOUTE RESPONSABILITÉ POUR LES DOMMAGES MATÉRIELS ET HUMAINS
CAUSÉS PAR UNE INSTALLATION MÉCANIQUE, AU PLAFOND, ERRONÉE OU NÉGLIGÉE.

2 · GENERAL INFORMATION

The instructions detailed in this manual for installation and normal operation of the projector must be followed precisely.

Installation and preliminary adjustments should be performed by qualified Service technicians.

2.1 · PROJECTOR IDENTIFICATION

Model and Serial number indications are located on the projector rear side label (see the following picture).

Record the Serial Number in the space below and refer to it for future Information/Service request to SIM2 MULTIMEDIA.

Before operating the projector, read carefully the safety labels on the rear panel.

The lightning flash on the identification label, with the arrow and 30,5 KV indication, is intended to advise the user that inside components can produce electrical shocks.

WARNING:

To prevent damages, fire or electrical shocks, do not expose this projector to rain or moisture.
Servicing or adjusting the internal parts of the projector, must be made by qualified Service personnel.

• Never push objects of any kind into the projector cabinet ventilation slots as they may touch high voltage components or short-circuit components that can produce risk of fire or electrical shocks.

• Avoid dropping of any kind of liquid on the projector. Should any liquid or solid object fall into the cabinet, unplug the projector and call for qualified service technician before resuming operations.

• If the projector is not used for long periods of time or during lightning storm, unplug the set from the power outlet to prevent damages of the projector itself due to lightning or AC power line surges.

• Do not place the projector on unstable stands or tables because it can fall causing serious damage.

• Slots of the cabinet are provided for ventilation of internal components; avoid covering or blocking of these openings and, also, avoid placing the projector on soft surfaces.

• Do not place the projector in a built-in installation or enclosure unless proper ventilation is provided.

• Upon completion of service or repair operations on the projector, ask the service technician to perform safety checks (all components and cables in proper position) and to ensure that the projector is in proper operating conditions.

2.2 · POWER CABLING

In the following picture is shown the power section device of the projector.

• **The projector operates at 120-240 Vac, 50/60 Hz, 220 W, 2A RMS-MAX power source as indicated on the rear label.**

• **For model SVP 350 UK operate at 240 (+10 -20%) V~.**

• **The proper fuse is the 5A, T type (delayed).**

WARNING:

THIS EQUIPMENT MUST BE GROUNDED

If the power socket is not equipped with ground pin, call your electrician and provide a power line with ground connection and ensure its efficiency.

To disconnect the cable, pull it out with the plug; avoid pulling the cable itself.

When using extension cable for the projector, make sure that the extension cable has the rating higher than 3A and is equipped with ground wire.

2.3 · SERVICING

Servicing must be made by qualified service technicians. Do not attempt to service the projector without proper technical knowledge, as opening the cabinet may expose personnel to dangerous voltages and risk of electric shocks.

In the following cases unplug the mains cable and call for qualified service technicians:

1 · When power cable or plug is damaged.

2 · Liquids falling into the projector.

3 · Rain or water falling on the projector.

4 · When the projector does not operate normally when the operating instructions are properly followed.

5 · Adjust only the controls covered by the installation and user instructions; adjustment of the other controls may result in damage, that can require extensive work by qualified technician.

6 · Dropping of the projector or damage to the cabinet.

7 · Large changes in performance not adjustable with normal customer controls.

2.4 · SPARE PARTS

USE ORIGINAL SIM2 MULTIMEDIA SPARE PARTS.

Using components different from the original spare parts can produce:

• Degraded performance.

• Fire.

• Electric shocks.

• Electric damage.

• Etc., etc.

Substitution of components different from the original ones void the manufactory warranty.

2.5 · PROJECTOR CLEANING

Before cleaning, unplug the projector power cable from the wall outlet.

Do not use liquid cleaners or spray cleaners.

Stubborn stains can be removed with cloth lightly dampened with mild detergent solution.

Never use strong solvents such as thinner, petrol, acetone or abrasive cleaners since these can damage cabinet paint.

Avoid touching the lenses and clean them in the same way as any photographic lens, due to the fact they are specially treated with anti-reflection coating (use, carefully, specific paper for lens cleaning or use special photographer bellows).

Note: *After 2000 hours of total working time, it's mandatory to clean the lens in front of the projection tubes.*

Don't forget to cover the lenses when the projector is not used.

2.6 · PROJECTOR PACKING

For the best protection, pack the projector as it was originally packed at the factory.

For air freight shipping, in order to block the packing into the palette, use normal iron or plastic banding.

2.7 · AMBIENT ILLUMINATION

To obtain the best quality of the projected images, the ambient must be completely darkened; keep the light falling on the screen to an absolute minimum.
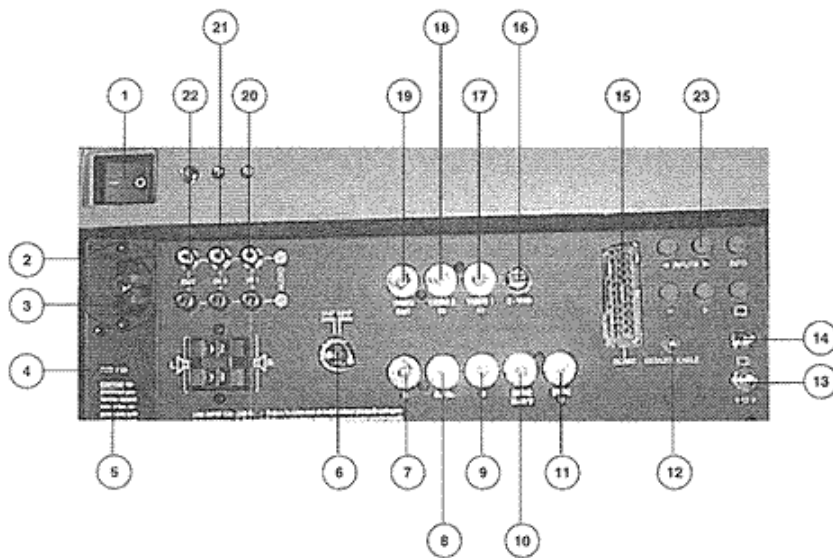
If possible, ensure that ceiling, walls and floor of the projection room are dark and non-reflecting.

2.8 · BACK PANEL

At the rear there is a panel with:

• Six keys for the complete projector control

• Main power connection

• The main switch and the fuse holder

• The input connectors

• Safety labels

The parts on the panel have the following meanings:

1 · **Power Switch.**

2 · **Fuse holder.** The fuse type is 5A, T delayed.

ATTENTION:

For continued protection against risk of fire, replace only with same type and rating fuse.

---

3 · **Main power connector:** to connect the power cable: 90-270 Vac 48-62 Hz power source (for SVP 350 UK: 190÷270 Vac)

4 · **Audio OUT** (loudspeaker LEFT)

5 · **Audio OUT** (loudspeaker RIGHT)

6 · **Tuner input**

7 · **Red BNC** input

8 · **Green BNC** input

9 · **Blu BNC** input

10 · **Sync H.** Horizontal BNC Synchro

11 · **Sync V.** Vertical Synchro

12 · **REMOTE CABLE:** to connect the RC3000 remote control cable.

13 · **+12V connector** (output). It has +12V output when the set is on. This output is able to drive a relay with a current less than 10mA.

14 · **Screen Command.** It has +12V in output when the aspect ratio selected is SMALL by the ⬚ button. It is used to change the screen dimensions automatically.

15 · **SCART connector** (input/output)

16 · **S-VHS:** SVHS input signal (Signal input)

17 · **VIDEO 1:** CVBS (Signal Input)

18 · **VIDEO 2:** CVBS (Signal input)

19 · **VIDEO OUT:** CVBS (output)

20 · **Audio 1** (Signal input)

21 · **Audio 2** (Signal input)

22 · **Audio (**Signal output)

23 · **REAR PANEL BUTTONS:**

⬚ **Picture adjustments.** Everytime you press the button you select one of the following items:

Color, Contrast, Brightness, Peaking, Hue.

Use the + AND - buttons to change the value of the item selected.

INFO. Press this button to have a complete status of the projector (ref. INFORMATION paragraph).

< > **Buttons:** Allow to change sequentially the input selection. These buttons can also be used to switch ON the set.

3 · USER GUIDE REMOTE CONTROL RC 3500

3.1 · USER REMOTE CONTROL

The RC 3500 is a User Remote Control and it is used for the normal projection. The projector is driven by remote controls via infrared light.

The following pages explain the buttons/functions of the User Remote Control.

3.2 · BUTTONS

1. **1 to 9** Allows to select the programme from 1 to 200 or if the inputs menu is displayed the video inputs.

2. **AV / 0** Allows to select the display the video inputs menu.

3. **P+** Up Arrow or increments programme.

4. **V+** Right Arrow or increments volume.

5. **V-** Left Arrow or decrements volume.

6. **P-** Down Arrow or decrements programme.

7. **EXIT** Allows to return to previous menu or previous page. Present also in the User Remote Control.

8. **MEMO** Allows to memorize the image adjustment.

9. **VCR** Allows to select the sync filter type between FAST or SLOW values.

10. **Red Button** In TTX mode allows to store recall the favorite pages or select the linked pages in TOP FLOF transmissions.

11. **Green Button** Same as 10.

12. In TTX mode allows expand the page of image.

13. In TTX mode interrupt the updating of the page on display.

14. ⏻ Allows to consult Teletext.

15. Allows to switch ON/OFF the videoprojector.

16. In TTX mode allows to enter sub-page code.

17. In TTX mode allows to overlay the Teletext page onto the TV image.

18. **MUTE** Allows to mute the audio or switch ON/OFF the image displayed.

19. In TTX mode allows to hide the teletext page temporality.

20. In TTX mode allows to reveal hidden text parts in the page.

21. **INFO** Allows to display the projector status information. Present also in the User Remote Control. In TTX mode select the index page.

22. **Yellow Button** Same as 10.

23. **Light Bleu Button** Same as 10.

24. ▭ Allows to select the picture aspect ratio and screen format (Normal, Wide,).

25. **>·<** Allows to restore the NORMALIZED values of the picture setup (peaking, hue, saturation, brightness and contrast).

26. **ENTER** Executes the menu selections or go to next page.

27. Selects the audio menu to adjust audio parameters.

30. **ESC...** Allows to exit from any menu and to display an external picture.

29. **◻ VIDEO MENU** Allows to select the video menu or to change the peaking, hue, saturation, brightness and contrast values.

28. **°°° AUX MENU** Allows to select languages. If pressed for a few second, allows to memorize the NORMALIZED values for the peaking, hue, saturation, brighness and contrast parameters, select the tuning menu and the install menu.

3.3 · BATTERIES

Handling remote control and batteries:

• Avoid heat and humidity.

• When not using the remote controls for a long period remove the batteries.

• Do not use new and old batteries together or used different types together.

• Do not drop or mishandle the remote controls.

Use the remote controls within the valid operating range (about 10 meters and 30° angle).

Note: *The user remote control mod. RC 3500 and RC 3100 is powered by 2 1.5 V, AA type, batteries.*

RC 3500
BACK VIEW

2 Piles
1.5 V
Type AA
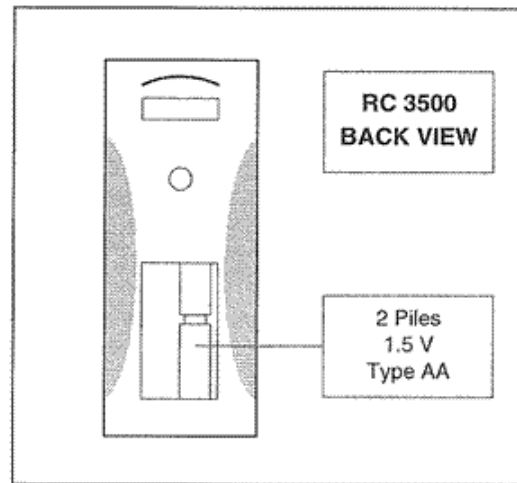
3.4 · USER REMOTE CONTROL RC 3500

The following chapter shows the functions of the user remote control RC 3500.

Read very carefully this chapter before to change any value.

3.5 · VIDEOPROJECTOR POWER ON

To switch ON/OFF the videoprojector:

• To switch ON the videoprojector, press button ⏻ for a little time.

• To switch OFF the videoprojector, press button ⏻ for long time.

• When the videoprojector is switched OFF, before to swatch ON is necessary to wait for more than 3 sec.

3.6 · LANGUAGES MENU

To select which language you want for the messages of the On Screen Display.

Press the °°° button (for a little time) the following picture will appears.

The arrow on the left of the item indicates the current setup.

Use the up/down arrows to select the correct language.

Press **ENTER** to confirm.

Press **ESC...** to exit from this menu.

LANGUAGES

DEUTSCH
➤ ENGLISH
ESPANOL
FRANCAISE
ITALIANO
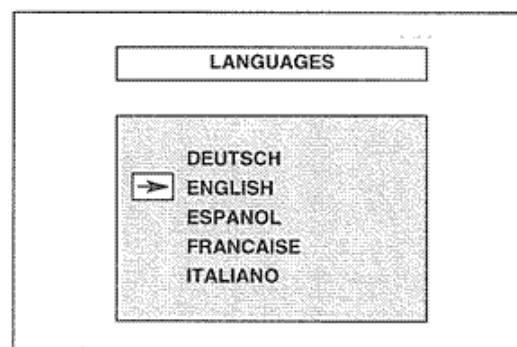
3.7 · INPUT - SELECTION

To select a programme.

• Use the numbers 1 to 9 or buttons P+ P- to select the desired programme. The programme number appear on the screen for a few seconds.

To select the input signal connector.

• Press the AV/0 button to enter in the video input menu. The following menu will appear on the screen.

```
         INPUT SELECT

    1 · SCART/VIDEO 1
    2 · VIDEO 2
    3 · SCART-VHS
    4 · SCART/RGB
    5 · S-VHS
    6 · BNC 15KHZ
```
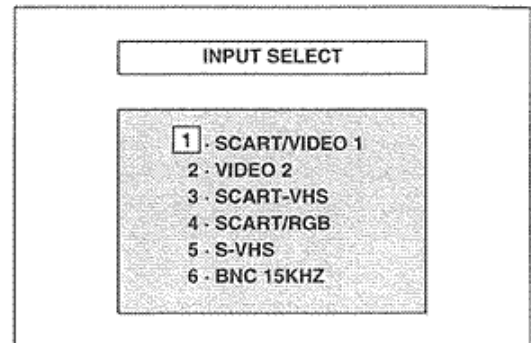
Press the relative number to select the video input.

For example, if you want to select the video 2 you must press the button 2 and the following picture will appear for a little time.

```
         VIDEO 2
```
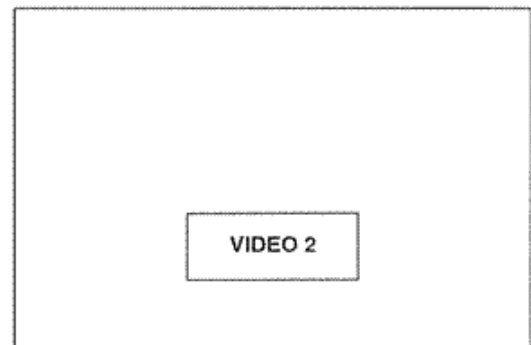
3.8 · PICTURE MUTE

Press the MUTE button for one second to switch ON/OFF the image that is displaying.

3.9 · PICTURE ADJUSTEMENT

To change the value of contrast, brightness, color, peaking and hue (Video Mode NTSC Standard).

• Press the ☐ button for a little time, one of the five picture control function (contrast, brightness, color, peaking and hue) will appear. Everytime you press the button you change the item. Use the left/right arrows to change the values.

• Press ESC... button to exit.

• Press MEMO button if you want to store the new setup.

```
                  HUE 50
```

```
   COL 38          CON 34          BRI 19          PK 44
```
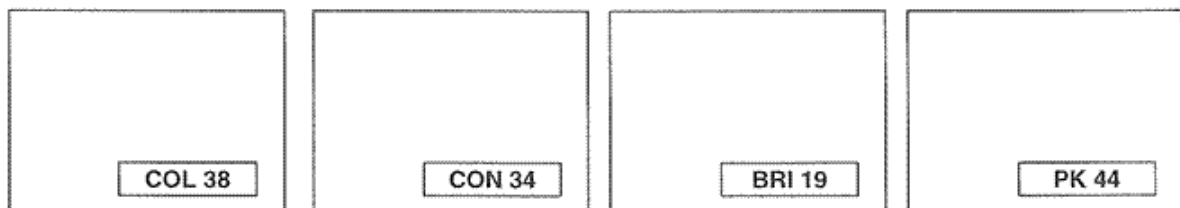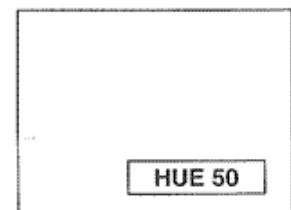
3.10 · VCR Button (sync filter)

To select the sync filter.

Press the **VCR** button to change the video time constant, the following message will appear.

Whenever you press the VCR button you toggle the sync filter type from FAST to SLOW or back.

After a little time, the message will disappear.

Note: *FAST is recommended for VCR. SLOW is recommended for broadcasting video signal.*

FAST
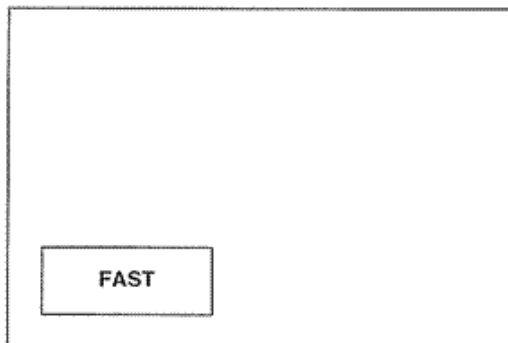
3.11 · Screen Format Selection

To select the correct screen format: (Normal, Wide)

Press the ☐☐ button, one of the previous screen format will appear on the screen (WIDE for example).

Whenever you press the button you choose one of the aspect ratio memorized in the memory banks.

In the memory banks (ref. Memory Manager) you can store more that one setup with the same frequencies but with different aspect ratio flags. So, everytime you press the ☐☐ button, you display the input signal with a different aspect ratio if it is memorized in the memory banks.

All the possible aspect ratios are: Normal, Wide.

After pressing the button, the message will disappear after a little time.

Note: *Only if you select SMALL aspect ratio format, you get +12V at the connector on the rear panel marked by ☐☐ .*

WIDE
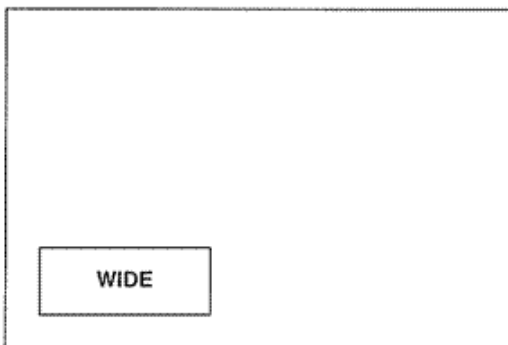
3.12 · Information

Get information about the videoprojector status.

Press the INFO button to access the projector information menus, related to the parameters and settings of the currently displayed image.

INFORMATION 1/2	
INPUT	VIDEO
H. FREQ.	15,62 KHz
V. FREQ.	50 Hz
UPC	NOT PRESENT
VIDEO STD	PAL
BANK NAME	DN.
BANK LOADED	05
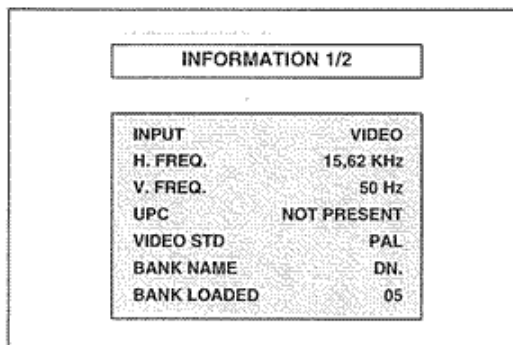
INPUT: video input signal.

Press an other time the INFO button to go to the next picture.

Press ESC... button to exit.

```
┌─────────────────────────────────┐
│      INFORMATION  2/2            │
│                                 │
│  ┌───────────────────────────┐  │
│  │ ASPECT RATIO      NORMAL  │  │
│  │ COLOR TEMP.        3200K  │  │
│  │ INSTALL.    CEILING FRONT │  │
│  │ SYNC.              CVBS   │  │
│  │ SYNC. FILTER        FAST  │  │
│  │ SW. REALISE          1.5  │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```

3.13 · HOW TO MEMORIZE

To memorize the contrast, brightness color, peaking hue and volume parameters as NORMALIZED values.

To memorize the contrast, brightness color, peaking hue and volume parameters as USER values.

Inside the projector are memorized two different picture regulation setup. A user setup which is loaded everytime the projector switch ON and a NORMALIZED setup which is loaded everytime you press the >·< button.

You can change both setups.

• To change the NORMALIZED peaking, color, contrast, brightness, hue ,volume values.

The NORMALIZED setup is used if you have changed the picture regulation parameters and you want to come back to previously stored values.

If you want to change the setup, press the °°° button for a long time to enter in MAIN SETTINGS menu the following menu will appear.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │       MAIN SETTINGS       │  │
│  └───────────────────────────┘  │
│  ┌───────────────────────────┐  │
│  │                           │  │
│  │     MEMOR NOR DATA        │  │
│  │     INSTALL MODE          │  │
│  │     TUNING MENU           │  │
│  │                           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```

Press the EXIT button to escape.

Use the up/down arrows to select the MEMO NOR DATA item.

Press the ENTER button to confirm the regulation parameters memorize, the following message will appear.

```
┌─────────────────────────────────┐
│  ┌───────────────────────────┐  │
│  │       MAIN SETTINGS       │  │
│  └───────────────────────────┘  │
│  ┌───────────────────────────┐  │
│  │     MEMOR NOR DATA        │  │
│  │     INSTALL MODE          │  │
│  │     TUNING MENU           │  │
│  └───────────────────────────┘  │
│  ┌───────────────────────────┐  │
│  │          STORED           │  │
│  └───────────────────────────┘  │
└─────────────────────────────────┘
```

So you memorize the peaking, hue, saturation, brightness and contrast parameters.

• To recall the NORMALIZED setup press the >·< button. No message will appear on the screen.

• To change USER setup: To change the USER peaking, color, contrast, brightness, hue values.

To memorize a personal setup which is loaded by the projector when it switch ON. Use the peaking, saturation, contrast, hue and brightness buttons to make a personal setup. When you want to memorize the user setup you press the MEMO button.

No message will appear on the screen.

ATTENTION:

The user setup is memorized only if you press the MEMO button when a picture regulation buttons (peaking, hue, brightness, contrast or saturation) is active.

To realize a picture setup refer to PICTURE ADJUSTMENT at 3.10.

For example, you have change the contrast value.

CON 49
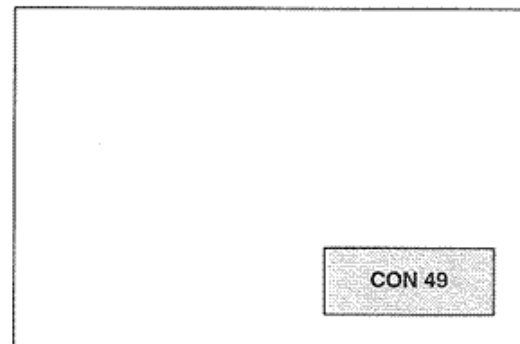
To memorize the new values in the user setup, press the MEMO button and the following menu will appear.

| STORED | CON 51 |
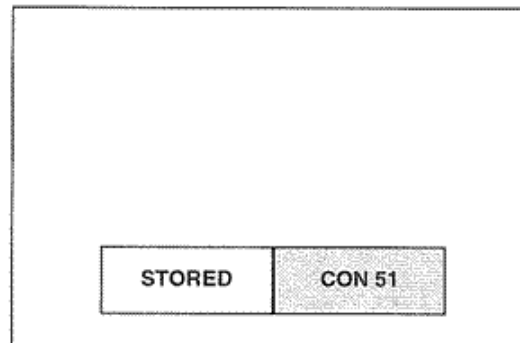
MEMO: It is used also to memorize a new input signal setup (ref. MEMORY MANAGER).

3.14 · AUDIO FUNCTIONS

Pressing the key with the loudspeaker symbol to select the audio menu.

• **Balance.** Use P+ P- to select the item BALANCE and V- V+ to adjust the value.

Press button MEMO to store the value.

• **Loudness.** Select the desired item and use V- V+ to switch ON/OFF the function.

• **Wide.** Select the desired item and use V- V+ to switch ON/OFF the function.

• **Force audio mono.** Into AUDIO MENU select AUDIO item. Use V- V+ to force audio mono.

AUDIO MENU	
BALANCE	50
EQUALIZER	
LOUDNESS	YES
AUDIO	STEREO
WIDE	YES

```
┌──────────────────────────────────┐
│        ┌──────────────────┐      │
│        │   AUDIO MENU     │      │
│        └──────────────────┘      │
│   ┌──────────────────────────┐   │
│   │ BALANCE        50        │   │
│   │ EQUALIZER                │   │
│   │ LOUDNESS       YES       │   │
│   │ AUDIO          B         │   │
│   │ WIDE           YES       │   │
│   └──────────────────────────┘   │
└──────────────────────────────────┘
```
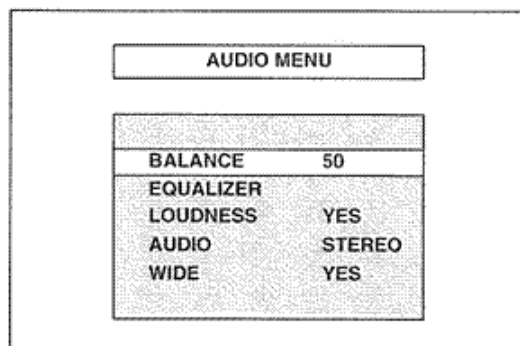
• **Select Audio A audio B (only if transmitted).** Into AUDIO MENU select AUDIO item. Use V- V+ to select audio A or audio B.

```
┌──────────────────────────────────┐
│        ┌──────────────────┐      │
│        │   EQUALIZER      │      │
│        └──────────────────┘      │
│   ┌──────┬───────────────────┐   │
│   │  50  │  50   50   50  50 │   │
│   │100 HZ│330 HZ 1 K 3.3 K 10 K│ │
│   └──────┴───────────────────┘   │
└──────────────────────────────────┘
```
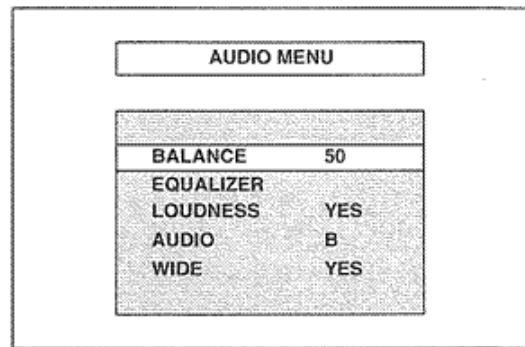
• **Equalizer.** Into AUDIO MENU select EQUALIZER item and press ENTER. Use P+ P- V+ V- to select /adjust the values. Press the button MEMO to store them.
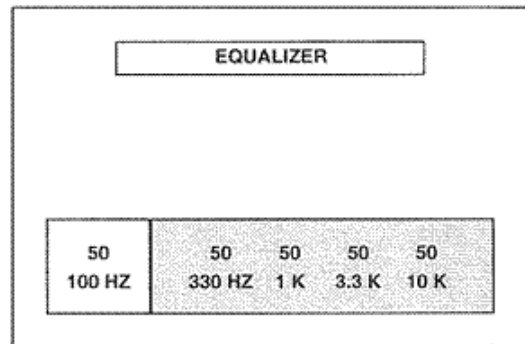
• **Muting Audio.** Press for a short time the MUTE button. If you modify volume the OSD will appear red to inform that muting is inserted.

3.15 · TELETEXT FUNCTIONS

Press TTX button to consult Teletext.

Press buttons 0 to 9 to enter the three-figure page number to be consulted.

A page can also be selected in one of the following procedures:

• Press **i** to recall the index page.

• Press **P+ P-** to select the previous or following page.

• Press the °°° button. If there are references to other pages (for example news on page 150) in the on display page, a cursor indicating the first page number will appear. Press the °°° button for a long time (approx. 1 sec) to recall the page indicated by the cursor, or press the °°° button again to move the cursor on to other possible page numbers on display.

• Same networks broadcast some references to subjects of other pages by placing them at the bottom of a page and them off in red, green , yellow and light blue (FLOF and TOP). Use colored buttons red, green, yellow or light blue to consult the page whose subject is shown off in the selected color.

• If teletext is not FLOF or TOP it is possible to store/recall favorites pages for every programmes. Select one page, press the red button for a long time (approx. 1 sec). The number on the display appear at the page bottom , shown off by the red field; from now on , the page can be recalled by pressing the red button. Proceed in the same way for the green, yellow and light blue buttons.

• Press ⊟ button to overlay the Teletext page onto the TV image.

• Press ? button to enter the sub-page which you want to recall, composed of four figures.

• Press ⊠ to hide the teletext page temporality. On top of the screen, **TXT** symbol will appear. When the teletext page is updated by the broadcasting station, the page number appears instead of **TXT** symbol. Press **TXT** button to consult the updated page.

• Press ⊕ button to expand the top part of the page on display. Press the button again to expand the bottom part. Press it for the third time to restore the normal page size.

• Press ⊠ button to interrupt the updating of the page on display. If the page has sub-pages, these are calculated by the TV set, which indicates them with asterisks on the bottom part of the screen. Press **P+ P-** buttons to consult the sub-pages received.

• Press ? button to return from the teletext mode to the TV mode.

• Press ESC button to return from teletext to TV mode.

3.16 · TUNING FUNCTIONS

To select the **Tuning Functions** you have first to select the MAIN SETTINGS menu.

MAIN SETTINGS

MEMO NOR DATA
MODE INSTALL
TUNING MENU

Pressing for a long time the key °°°.

TUNING MENU

COUNTRY
TUNING
AUTO TUNING
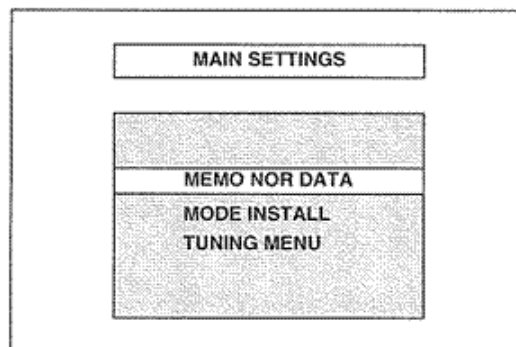
With the buttons P+ and P- select the TUNING MENU and press the button ENTER.

The following menu appear on the screen.

```
┌─────────────────────────┐
│        COUNTRY          │
├─────────────────────────┤
│           A             │
│           AL            │
│           AUS           │
│           B             │
│           BG            │
│           BIA           │
│           BY            │
└─────────────────────────┘
```
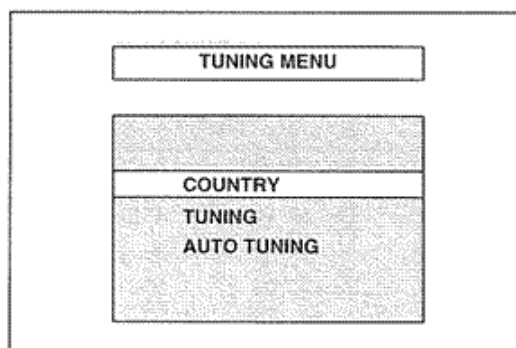
• **To select the country** select the TUNING MENU than the COUNTRY menu. The following menu appear.

Use the P+ P- to select the correct country.

Press EXIT to go to the previous menu.

```
┌─────────────────────────┐
│       TUNING MENU       │
├─────────────────────────┤
│                         │
│        COUNTRY          │
│        TUNING           │
│        AUTO TUNING      │
│                         │
└─────────────────────────┘
```
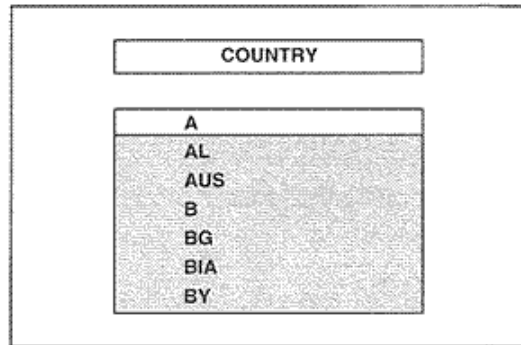
• **To manual tuning** select the TUNING MENU.

```
┌─────────────────────────┐
│       TUNING MENU       │
├─────────────────────────┤
│     CHANNELS      TV    │
│     PROGRAM       001   │
│     CHANNEL       C22   │
│     FREQ.         471.2 │
│     STANDARD       I    │
└─────────────────────────┘
```
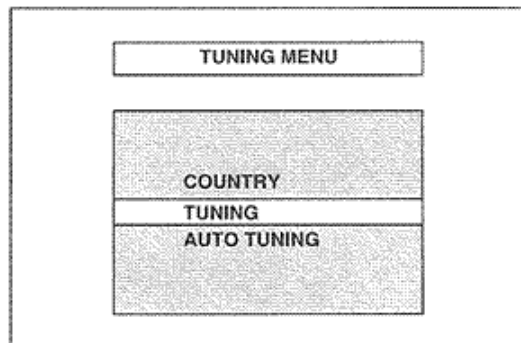
than select the item TUNING, the following menu appear on the screen.
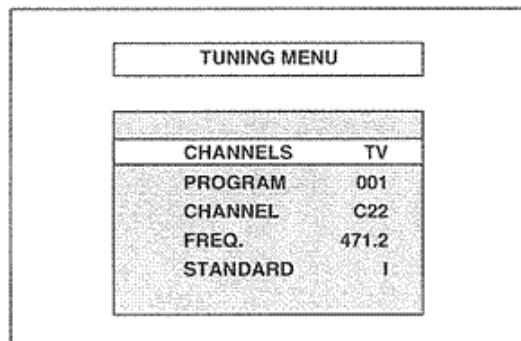
• **To select channels from cable.** Into TUNING MENU select item CHANNELS than use V- V+ to select CATV cable system.

• **To select channel.** Into TUNING MENU select item CHANNEL. Use V- V+ or button numbers to select the desired channel.

• **Fine tuning.** Into TUNING MENU select item FREQ. Use V- V+ to change frequency.

Note: *Press the buttons for short time, otherwise the system start searching for next channel.*

• **Tuning by frequency.** As Fine tuning, described above but in this case press the buttons V- V+ for a long time.

• **Select standard.** The system automatically select the correct standard. The user can in any case select a new one. Into TUNING MENU select item STANDARD, use V+ V- to select the desired standard.

• **To Store programme**. Into TUNING MENU select the item PROGRAM. Use V+ V- or the number buttons to select the programme, then press the button MEMO to store the tuning information. The label STORED Appear for a few seconds.

• **Auto Tuning.** Before start with auto tuning select first the country as just described before, then select into TUNING MENU the item AUTO TUNING.

The following menu appear on the screen.
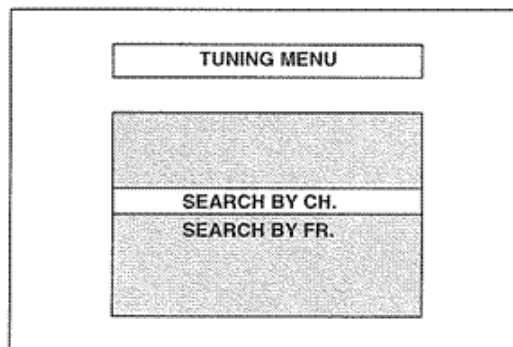
The user have to select if the search is made by channel or by frequency.

The software starts at the first channel table and programme 1. It scans all the frequencies and when a transmission is found all parameters are stored into the next programme number.

```
┌─────────────────────────────────┐
│   ┌─────────────────────────┐   │
│   │      TUNING MENU        │   │
│   └─────────────────────────┘   │
│   ┌─────────────────────────┐   │
│   │                         │   │
│   │                         │   │
│   ├─────────────────────────┤   │
│   │     SEARCH BY CH.       │   │
│   │     SEARCH BY FR.       │   │
│   │                         │   │
│   │                         │   │
│   └─────────────────────────┘   │
└─────────────────────────────────┘
```

3.17 · VIDEO MENU REGULATIONS

To switch ON/OFF the noise reduction.

This item permits to switch on/off a high frequencies filter.

To select video input standard.

This item permits to select which input video standard has to be decoded.
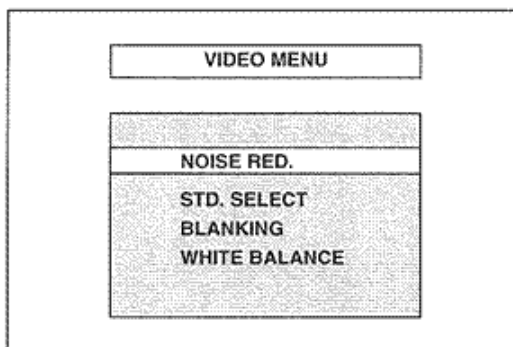
• To switch ON/OFF the noise reduction, press the ⬚ button for a long time, the following menu appears on the screen.

```
┌─────────────────────────────────┐
│   ┌─────────────────────────┐   │
│   │       VIDEO MENU        │   │
│   └─────────────────────────┘   │
│   ┌─────────────────────────┐   │
│   │                         │   │
│   ├─────────────────────────┤   │
│   │      NOISE RED.         │   │
│   ├─────────────────────────┤   │
│   │      STD. SELECT        │   │
│   │      BLANKING           │   │
│   │      WHITE BALANCE      │   │
│   │                         │   │
│   └─────────────────────────┘   │
└─────────────────────────────────┘
```

Use the up/down arrows to select the NOISE RED. and press the ENTER button to confirm the following menu appears on the screen.

Use the left/right arrows to switch ON/OFF the item.

Press ESC to exit.

Press EXIT to go to previous menu.

```
┌─────────────────────────────────┐
│   ┌─────────────────────────┐   │
│   │       VIDO MENU         │   │
│   └─────────────────────────┘   │
│   ┌─────────────────────────┐   │
│   │                         │   │
│   │                         │   │
│   │                         │   │
│   │                         │   │
│   │   NOISE RED.   ┌────┐   │   │
│   │                │ ON │   │   │
│   │                └────┘   │   │
│   └─────────────────────────┘   │
└─────────────────────────────────┘
```

VIDEO MENU

NOISE RED.
STD. SELECT
BLANKING
WHITE BALANCE
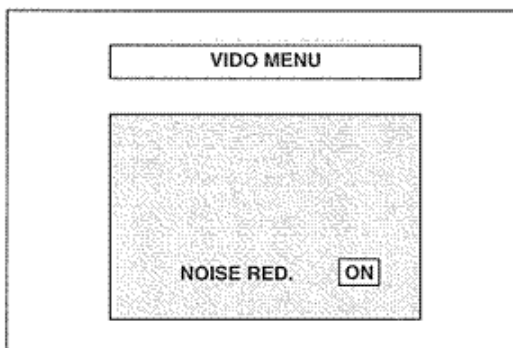
• To select which video input standard (PAL, SECAM, NTSC 3.58, NTSC 4.43) has to be decoded.

Press the ⬜ button for a long time to enter in video menu. The following menu appears.
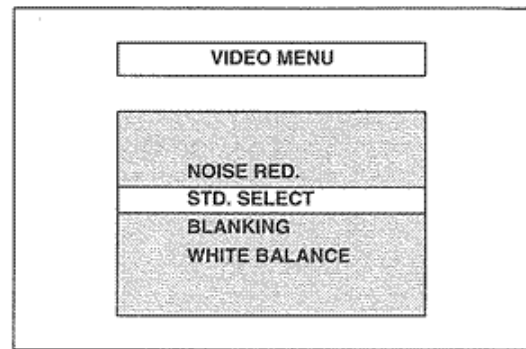
Use the up/down arrows to select the STD SELECT. item and press ENTER to confirm, the following menu will appear on the screen.

The arrow on the left of the item indicates the current setup.

Use the up/down arrows to select the correct standard video input or the auto detection mode.

Press ENTER to confirm.

Press EXIT to go to the previous menu.

Press ESC... to exit from this menu.

STD. SELECT

→ AUTO DETECT
PAL
SECAM
NTSC 3.58
NTSC 4.43
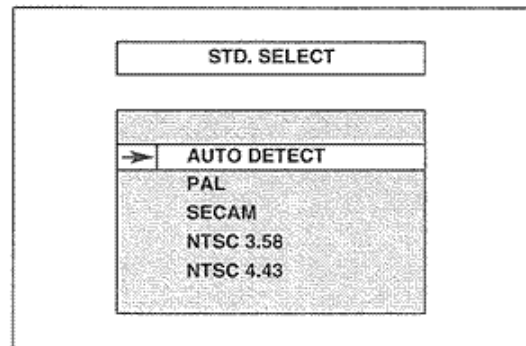
3.18 · BLANKING

To adjust the blanking windows on the left, right, top and bottom sides of the projected images.

• Press the ⬜ button for a long time, the following menu will appear on the video.

VIDEO MENU

NOISE RED.
STD. SELECT
BLANKING
WHITE BALANCE

Use the up/down arrows to select the BLANKING item and press ENTER to confirm.

Press the up/down arrow buttons to change the Vertical value.

Press the left/right arrow buttons to change the Horizontal value.

Press the EXIT button to go to the Video Menu.

Press the ESC... button to disappear the menu.

↑

⬅ BLANKING

H. = 03   V. = 97
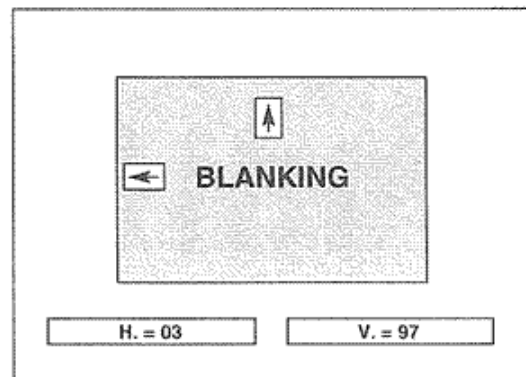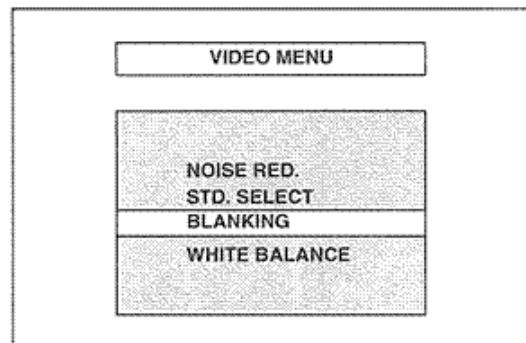
Press the ENTER button to enter in the following menu.

Press the up/down arrows to change the Vertical value.

Press the left/right arrows change the Horizontal value.

Press ESC to exit.

Press EXIT to go to previous menu.
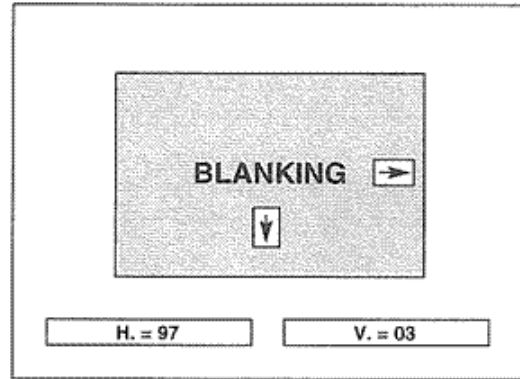
3.19 · WHITE BALANCE

To select a preset color temperature (3200K, 6500K, 9300K, USER) for the projected image.

• To select a color temperature, you must follow this procedure.

Press the button for a long time, the following menu will appear on the video.
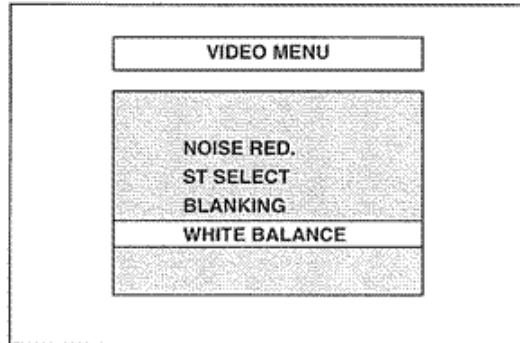
Use the up/down arrows, select the white balance and press the ENTER button to confirm the following menu will appear on the screen.

The arrow on the left of the window indicates the current setup.

Use the up/down arrows, select the color temperature and press the ENTER button to confirm.

The SET TO USER is an optional temperature color setup.
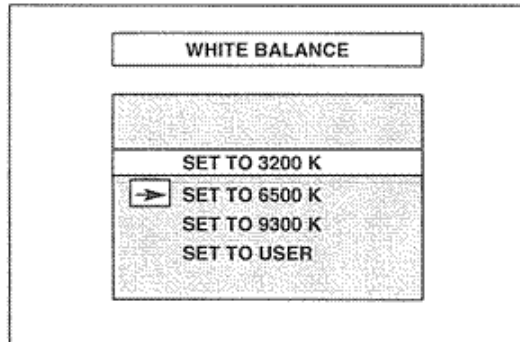
It must setup by a qualified technician.

4 · INSTALLATION MODE

Note: *Installation adjustments should be performed by qualified service technicians.*

4.1 · HOW TO ENTER IN INSTALLATION MODE

Only in installation mode you can change the deflection, regulate the white balance, switch ON/OFF the comb filter, choose the installation type, memorize a setup in the memory banks.

To enter in installation mode you must follow a special procedure.

Press the °°° button for two seconds, the following picture will appear.

Use the left/right arrows to highlight the INSTALL MENU.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │    MAIN SETTINGS    │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│   │                     │   │
│   │    MEMO NOR DATA    │   │
│   │    INSTALL MEMO     │   │
│   │    TUNING MENU      │   │
│   │                     │   │
│   └─────────────────────┘   │
└─────────────────────────────┘
```
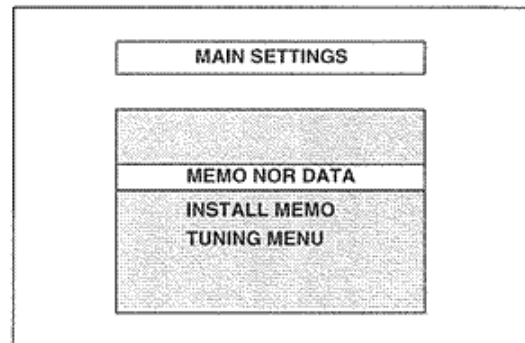
Press seven times the EXIT button, the following picture will appear.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │    INSTALL MODE     │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│   │ Before adj. registration be sure │
│   │ the following items have been │
│   │         checked.    │   │
│   │ 1 - mechanical centering of the │
│   │    projector and tubes │
│   │ 2- Lens focus adjustement. │
│   └─────────────────────┘   │
└─────────────────────────────┘
```
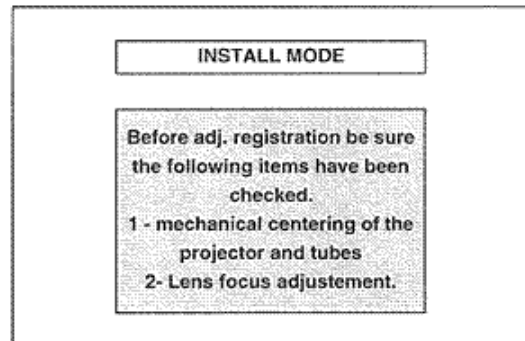
Press the ENTER button, the following menu will appear.

Only in INSTALLATION MODE the following menu are active: **DEFLECTION, VIDEO SETUP, OPTIONS and PATTERN SELECT.**

When you have finished the projector installation, you must switch OFF the projector to exit from the installation mode.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │    INSTALL MODE     │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│   │                     │   │
│   │    DEFLECTION       │   │
│   │    VIDEO SETUP      │   │
│   │    OPTIONS          │   │
│   │    PATTERN SELECT   │   │
│   │                     │   │
│   └─────────────────────┘   │
└─────────────────────────────┘
```
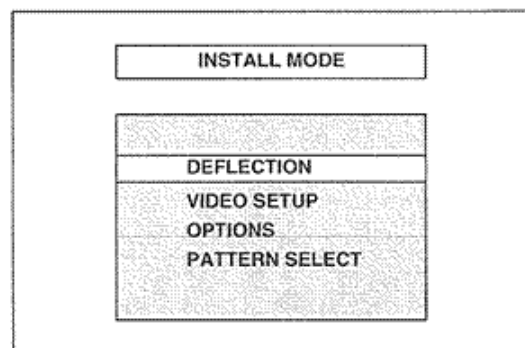
4.2 · DEFLECTION

Note: *See convergence cap. for more details*

4.3 · VIDEO SETUP

- **To change the Y/C delay.**
- **To change the white.**
- **To setup the gamma adjust.**
- **To switch ON/OFF the comb filter.**
- **To switch ON/OFF the adaptive black.**
- **To switch ON/OFF the blue stretch.**

4.4 · Y/C DELAY

• To setup the Y/C delay, you must enter in installation mode (*ref. INSTALLATION MODE at page 23*).

VIDEO SETUP
Y/C DELAY
WHITE BALANCE
COMB FILTER
GAMMA ADJ
ADAPTIVE BLACK
BLUE STRETCH

Use the UP/DOWN arrows to select VIDEO SETUP.

Press ENTER, the following menu will appear.
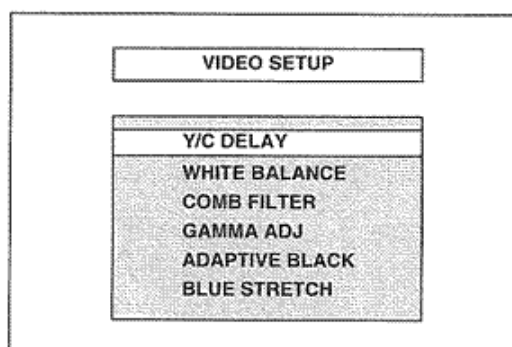
Use the up/down arrows to select the Y/C DELAY item and press the ENTER button to confirm, the following menu will appear.

Use the left/right arrows to change the Y/C delay value.

The Y/C delay value is correct when you are displaying a video signal with vertical color bars and they are not overlapping.

VIDEO SETUP
Y/C DELAY   42
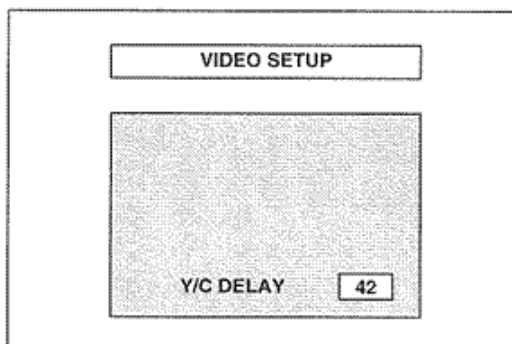
When you press the EXIT button to return on VIDEO SETUP menu, the projector will ask you to memorization with the following message:

STORE DATA?
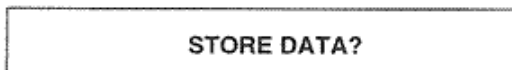
Press the ENTER button to confirm the memorization or press the EXIT button to escape it.

Press the EXIT button to return Video Setup Menu.

4.5 · WHITE BALANCE

• For modify the color temperatures, you must enter in INSTALLATION MODE (*ref. INSTALLATION MODE at page 23*).

Ude the UP/DOWN arrows to select VIDO SETUP.

Press ENTER, the following menu will appear.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │    VIDEO SETUP      │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│   │  Y/C DELAY          │   │
│   │  WHITE BALANCE      │   │
│   │  COMB FILTER        │   │
│   │  GAMMA ADJ          │   │
│   │  ADAPTIVE BLACK     │   │
│   │  BLUE STRETCH       │   │
│   └─────────────────────┘   │
└─────────────────────────────┘
```

Use the up/down arrows to select the WHITE BALANCE item and press the ENTER button to confirm.

The following menu will appear.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │   WHITE BALANCE     │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│  ─➤ 3200 K        ADJ   │   │
│   │                     │   │
│   │  6500 K       ADJ   │   │
│   │  9300 K       ADJ   │   │
│   │  USER         ADJ   │   │
│   │  FACTORY      ADJ   │   │
│   └─────────────────────┘   │
└─────────────────────────────┘
```

FACTORY SET: If you select this item you load the factory setup adjustments.

Use the up/down arrows to select the color temperature to change, and press the ENTER button to confirm, the following menu will appear.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │   WHITE BALANCE     │   │
│   │    6500 K ADJ       │   │
│   └─────────────────────┘   │
│   ┌─────────────────────┐   │
│   │                     │   │
│   │  BLACK  ┌──┐ 100  00│   │
│   │         │34│        │   │
│   │  WHITE  └──┘        │   │
│   │          58   92  24│   │
│   │                     │   │
│   └─────────────────────┘   │
└─────────────────────────────┘
```

Press the P+, P- buttons to select the BLACK R, BLACK G or BLACK B, WHITE R, WHITE G or WHITE B items. The item selected, is highlighted.

Used the left/right arrows to change the parameter value.

When you press the EXIT button to return on Video Setup menu, the software will ask you of memorization with the following message:

```
┌─────────────────────────────┐
│        STORE DATA?          │
└─────────────────────────────┘
```

Press the ENTER button to confirm the memorization or press the EXIT button to escape it.

When you have finished, the color temperature that you have changed is the new color temperature. So, the arrow on the left of the window indicates the new color temperature.

Press the EXIT button to return to VIDEO SETUP menu.

4.6 · COMB. FILTER

• To switch ON/OFF the COMB FILTER, you must enter in Installation Mode

(ref. *INSTALLATION MODE at page 23*).

Use the UP/DOWN arrows to select VIDEO SETUP.

Press ENTER, the following menu will appear/

Use the up/down arrows to select the COMB FILTER item and press the ENTER button to confirm, the following menu will appear.
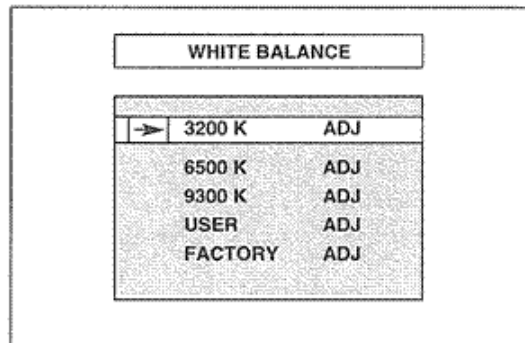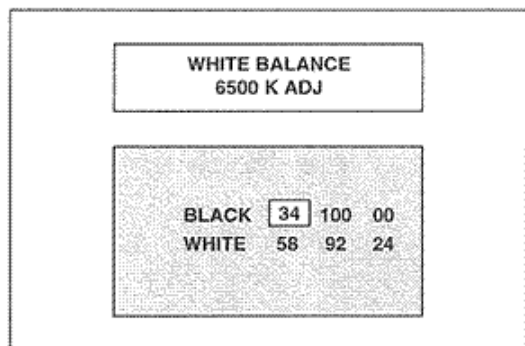
Use the left/right arrows to switch ON/OFF the comb filter.

The comb filter improves the separation between luminance and chrominance in order to avoid cross color effects.

Press the EXIT button to return Video Setup Menu.

```
┌─────────────────────────┐
│  ┌───────────────────┐  │
│  │    VIDEO SETUP    │  │
│  └───────────────────┘  │
│  ┌───────────────────┐  │
│  │   Y/C DELAY       │  │
│  │   WHITE BALANCE   │  │
│  │   COMB FILTER     │  │
│  │   GAMMA ADJ       │  │
│  │   ADAPTIVE BLACK  │  │
│  │   BLUE STRETCH    │  │
│  └───────────────────┘  │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│  ┌───────────────────┐  │
│  │    VIDEO SETUP    │  │
│  └───────────────────┘  │
│  ┌───────────────────┐  │
│  │                   │  │
│  │                   │  │
│  │                   │  │
│  │  COMB FILTER  ON  │  │
│  └───────────────────┘  │
└─────────────────────────┘
```

4.7 · GAMMA ADJUST

• **To setup the GAMMA ADJ, you must enter in Installation** (ref. 5.16 INSTALLATION MODE).

Press the VID.S button Video Setup Menu the following menu will appear.
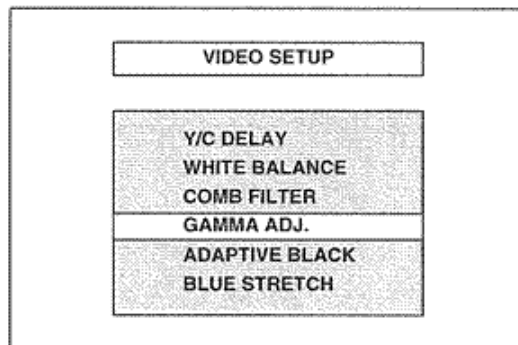
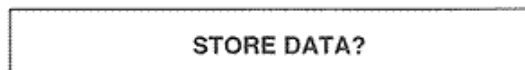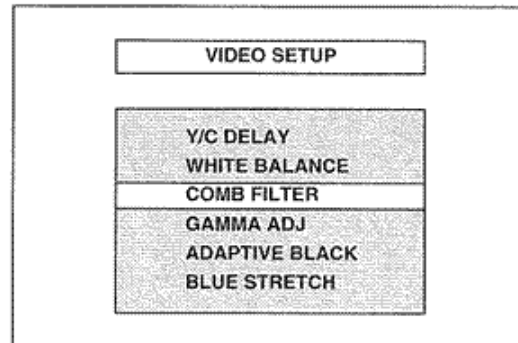Use the up/down arrows to select the GAMMA ADJ item and press the ENTER button to confirm, the following menu will appear.

Use the left/right arrows to change the GAMMA ADJ value.

Gamma Adj permits to make the best grey scale linearity because the tubes have a different outputs at different luminance intensity levels.

Press the EXIT button to return Video Setup Menu.

```
┌─────────────────────────┐
│  ┌───────────────────┐  │
│  │    VIDEO SETUP    │  │
│  └───────────────────┘  │
│  ┌───────────────────┐  │
│  │   Y/C DELAY       │  │
│  │   WHITE BALANCE   │  │
│  │   COMB FILTER     │  │
│  │   GAMMA ADJ.      │  │
│  │   ADAPTIVE BLACK  │  │
│  │   BLUE STRETCH    │  │
│  └───────────────────┘  │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│  ┌───────────────────┐  │
│  │    VIDEO SETUP    │  │
│  └───────────────────┘  │
│  ┌───────────────────┐  │
│  │                   │  │
│  │                   │  │
│  │                   │  │
│  │  GAMMA ADJ.   12  │  │
│  └───────────────────┘  │
└─────────────────────────┘
```

4.8 · ADAPTIVE BLACK

• **To switch ON/OFF the ADAPTIVE BLACK, you must enter in Installation Mode** *(ref. INSTALLATION MODE at page 1).*

Press the VID.S button Video Setup Menu the following menu will appear.

```
            VIDEO SETUP

        Y/C DELAY
        WHITE BALANCE
        COMB FILTER
        GAMMA ADJ
        ADAPTIVE BLACK
        BLUE STRETCH
```
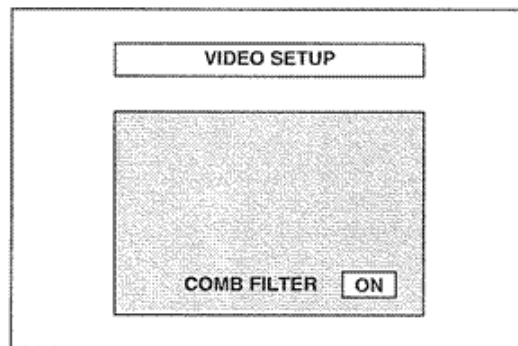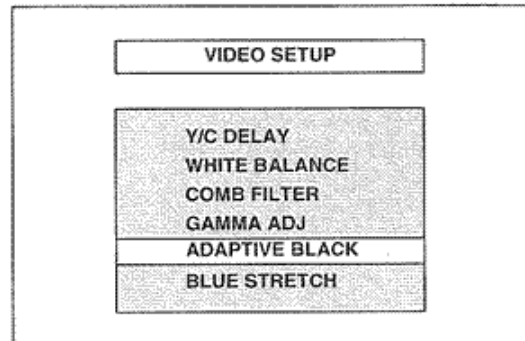
Use the up/down arrows to select the ADAPTIVE BLACK item and press the ENTER button to confirm, the following menu will appear.
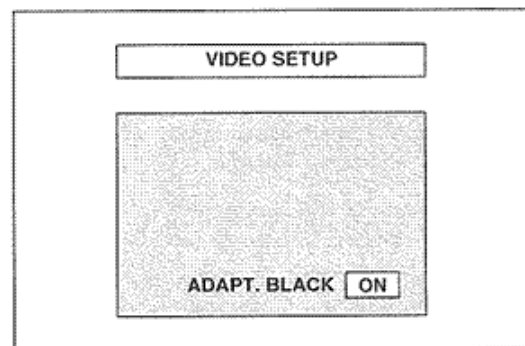
Use the left/right arrows to change the ADAPTIVE BLACK value.

Press the EXIT button to return Video Setup Menu.

```
            VIDEO SETUP




        ADAPT. BLACK  [ ON ]
```

4.9 · BLUE STRETCH

• **To switch ON/OFF the BLUE STRETCH, you must enter in Installation Mode** *(ref. 5.16 INSTALLATION MODE).*

Press the VID.S button Video Installation Menu the following menu will appear.

```
            VIDEO SETUP

        Y/C DELAY
        WHITE BALANCE
        COMB FILTER
        GAMMA ADJ
        ADAPTIVE BLACK
        BLUE STRETCH
```
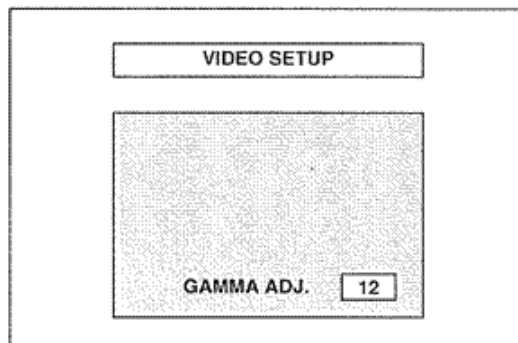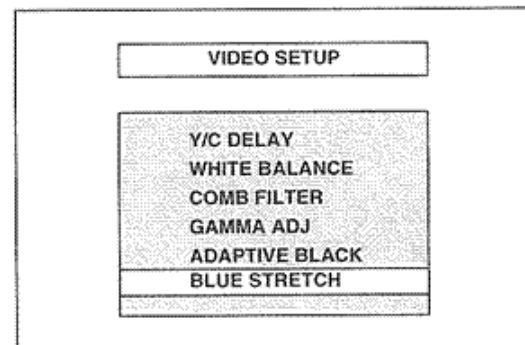
Use the up/down arrows to select the BLUE STRETCH item and press the ENTER button to confirm, the following menu will appear.
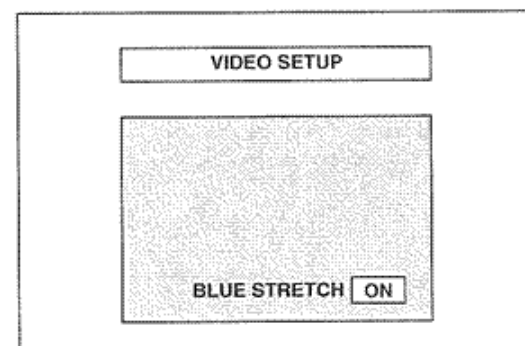
Use the left/right arrows to switch on-off the blue stretch.

This menu permits to change the blue CRT output in order to have the best quality for white images.

Press the EXIT button to return Video Setup Menu.

```
            VIDEO SETUP




        BLUE STRETCH  [ ON ]
```

4.10 · OPTIONS MENU

Firs of all, you must enter in INSTALL MODE (ref. page 23).

Select the items OPTIONS and press ENTER.

The following menu will appear.

```
           OPTIONS MENU

      OSD
      INSTALLATION TYPE
      POWER ON
      VTR STABILITY
      MEMORY MANAGER
      WORKING TIME
```

Use the up/down arrows to select the OSD item and press the ENTER button, the following picture will appear.

Use the up/down arrows to select OSD item and use the left/right arrows to enable or disable the OSD.

If the OSD is disabled you won't get any feedback when you change contrast, brighness, ect.

To change the message time duration.

```
               OSD


      OSD           ON
      MES TIME      04
```

Use the up/down arrows to select MES.TIME to setup the display time duration of the messages (in seconds) using the left/right arrows.

Press EXIT button to return at the previous menu.
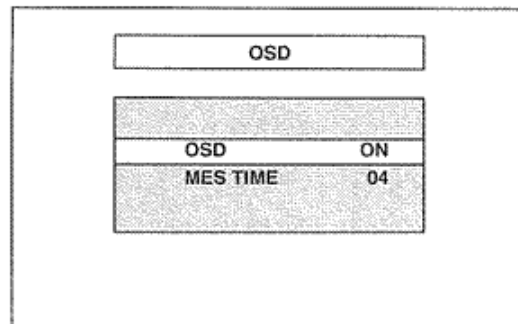
4.11 · INSTALLATION TYPE

To select the installation type.

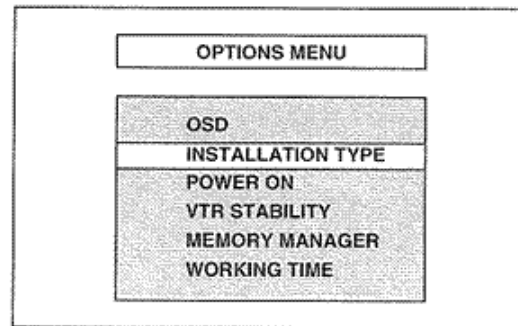• To select the INSTALLATION TYPE, you must enter in Installation Mode (ref. INSTALLATION MODE at page 23).

The following menu will appear.

```
           OPTIONS MENU

      OSD
      INSTALLATION TYPE
      POWER ON
      VTR STABILITY
      MEMORY MANAGER
      WORKING TIME
```
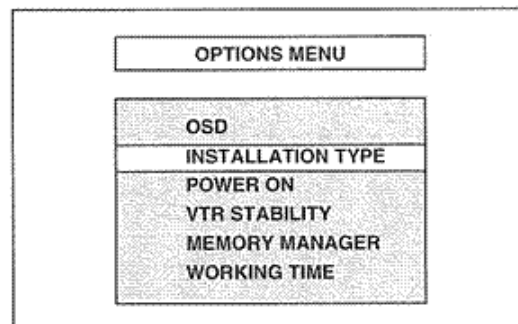
Use the UP/DOWN arrows to select the INSTALL TYPE item, the following menu will appear.

Use the UP/DOWN arrows to select the correct installation type.

Press the ENTER button to confirm the choose.

The arrow on the left of the picture point the current installation type

Press the EXIT button to return Options Menu.

```
           INSTALL TYPE


      DESKTOP FRONT

      CEILING FRONT
      CEILING REAR
```

4.12 · POWER ON

• To switch ON the projector automatically or by remote control.

You can decide that the projector stays in stand by or to switches ON automatically after a momentary power failure.

To setup this item, you must enter in Installation Mode *(ref. 5.16 INSTALLATION MODE at page 23).*

```
            OPTIONS MENU

        OSD
        INSTALLATION TYPE
        POWER ON
        VTR STABILITY
        MEMORY MANAGER
        WORKING TIME
```

Select the item OPTIONS. Press ENTER, the following menu will appear.

Use the up/down arrows to select the POWER ON item, and press ENTER button to cofirm.

The pointer → displays the actually item selected.

Press the EXIT button to return at the OPTIONS MENU.

```
            POWER ON


        STAND BY
    →   SWITCH ON
```

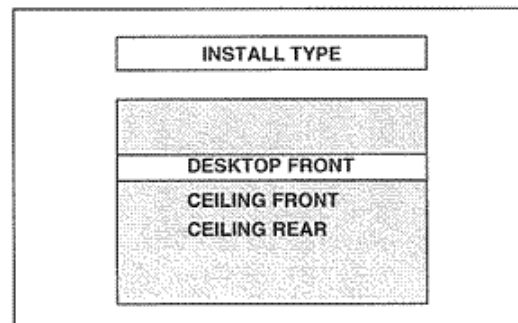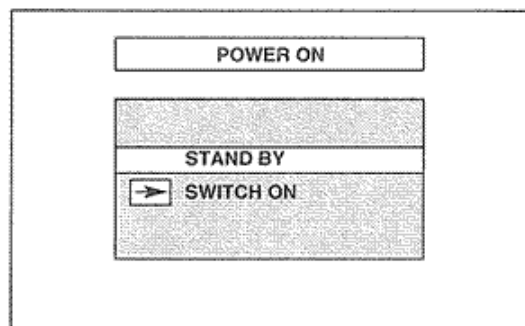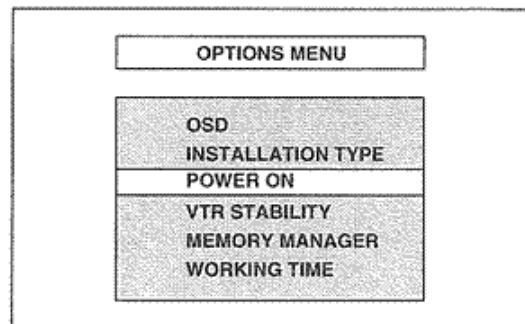## 4.13 · VTR SABILITY

• To switch ON/OFF the VTR stability, you must enter in Installation Mode *(ref. INSTALLATION MODE at page 23).*

Select the item OPTIONS.

The following picture will appear.

```
            OPTIONS MENU

        OSD
        INSTALLATION TYPE
        POWER ON
        VTR STABILITY
        MEMORY MANAGER
        WORKING TIME
```

Use the UP/DOWN arrows to select the VTR STABILITY item, the following menu will appear.

Use the LEFT/RIGHT arrows toswitch ON/OFF the VTR stability.

With VTR stability ON, the projector will decode a signal with anticopy coding.

Press the EXIT button to return OPTIONS MENU.

```
            OPTIONS MENU




        VTR STABILITY   OFF
```
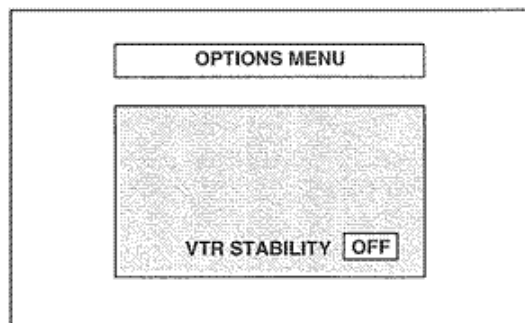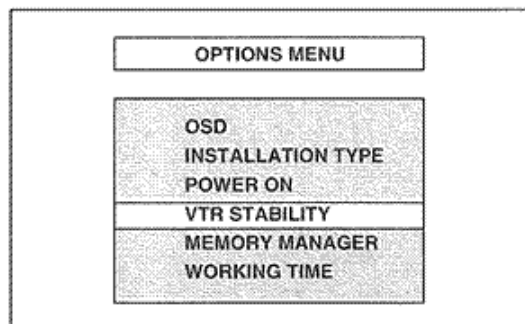
4.14 · MEMORY MANAGER

This menu enables the users to SELECT, COPY, MOVE and DELETE a memory bank containing all the registrations of the projector or to memorize a new registration in a memory bank.

Each memory bank is described by:

1. a number,
2. a name or label,
3. an aspect ratio flag ,
4. a Horizontal frequency,
5. a Vertical frequency.

The name is a mnemonic label and is written by the user.

The aspect ratio flag indicates which aspect ratio was memorized by the user during the regulations setup. It's very important that the user memorize the correct aspect ratio flag.

The horizontal and vertical frequencies are measured by the projector and memorized in the relative memory bank each time you save a registration setup. When the projector is switched ON, automatically the software loads the last memory bank selected.

## 4.14.1 · HOW ENTER IN MEMORY MANAGER

Enter in INSTALLATION MODE (ref. *INSTALLATION MODE at page 23*). Select the item OPTIONS.

The following menu will appear.
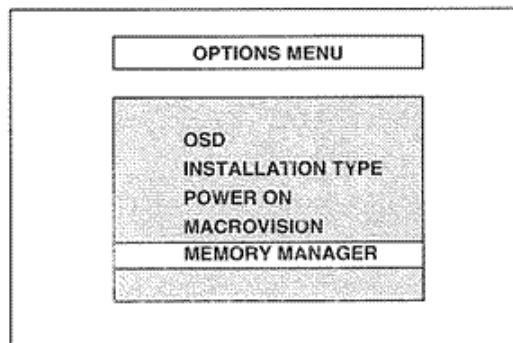
Use the up/down arrows to select MEMORY MANAGER item and press the ENTER button to confirm. The following picture will appear.

Note:

WORK 01: *Indicate thats the bank 01 has been loaded. It's important when the input frequencies do not match with the frequencies memorized into the memory banks.*

BN: *Bank Number.*

NAME: *Memory bank name (label).*

F: *Flag. With this flag you can change the aspect ratio: Small, Normal, Wide, Cinema, Large.*

HOR: *Horizontal frequency. It's measured by the software and the value is memorize into the memory bank.*

VER: *Vertical frequency. It's measured by the software and the value is memorized into the memory bank.*

OPTIONS MENU
OSD
INSTALLATION TYPE
POWER ON
MACROVISION
MEMORY MANAGER

WORK 01		MEMORY		MANAGER	
	BN	NAME	F	HOR	VER
LOAD	01	PAL	N	15.6	50
	02	NTSC	N	15.7	60
COPY	03	PAL.16/9	W	15.6	50
	04	NTSC16/9	W	15.7	60
MOVE	05				
DEL	06				
	07				
		LOAD BANK			

4.14.2 · How Insert a Label

First of all you must enter in memory manager (ref. HOW ENTER IN MEMORY MANAGER).

Press the right arrow and use the up/down arrows to select in which memory bank you want to change the label (i.e. 03).

Press the ENTER button to confirm, the following picture will appear.

Use the up/down arrows to scroll the alphabet and used the left/right arrows to skip at the next letter.

When you have written the correct label press the ENTER button to confirm.

WORK 01	BN	MEMORY NAME	F	MANAGER HOR	VER
LOAD	01	PAL	N	15.6	50
	02	NTSC	N	15.7	60
COPY	03		W	15.6	50
MOVE	04				
	05				
DEL	06				
	07				

MODIFY BANK NAME

4.14.3 · How To Change An Aspect Ratio Flag

First of all you must enter in memory manager.

Press the right arrow two times. Use the up/down arrows to select in which memory bank you want to change the aspect ratio flag (i.e. 03). Press the ENTER button, the following picture will appear.

Use the up/down arrows to change the aspect ratio, one of the following items:

Small, Letter Box, Cinema, Wide, Normal.

Press the ENTER button to confirm. The following message will appear at the bottom line.

WORK 01	BN	MEMORY NAME	F	MANAGER HOR	VER
LOAD	01	PAL	N	15.6	50
	02	NTSC	N	15.7	60
COPY	03	PAL.16/9	W	15.6	50
MOVE	04	NTSC16/9	W	15.7	60
	05				
DEL	06				
	07				

MODIFY BANK ASPECT RATIO

DATA SAVED

Note:

Only if you select SMALL aspect ratio format, you get +12V at the connector on the rear panel marked by

4.14.4 · Horizontal And Vertical Frequencies

The horizontal and vertical frequencies are measured by the projector and memorized in the relative memory bank each time you save a registration setup.

If the input signal frequencies don't match with any frequecies memorized in the memory bank, the software automatically recalls the memory bank with the frequencies nearest to the input signal. The software compares the frequencies with this order: horizontal frequency, vertical frequency and aspect ratio format.

If the input signal has different frequencies respect the frequencies memorized into the memory banks, the software doesn't match the frequencies memorized with the input frequencies. So you must memorize the new input signal setup in a free memory bank.

4.14.5 · How Memorized a New Input Signal Setup

To memorize a new input setup into a memory bank, press the MEMO button so you enter in MEMORY MANAGER menu.

WORK 01		MEMORY		MANAGER	
	BN	NAME	F	HOR	VER
LOAD	01	PAL	N	15.6	50
	02	DN	W	15.7	60
COPY	03				
	04				
MOVE	05				
DEL	06				
	07				
		MODIFY BANK			

The following picture will appear.

The name of the first free bank is highlighted. Use the up/down arrows to write the mnemonic name. Press the right arrows to select the aspect ratio flag and select with the up/down arrows the correct aspect ratio. Then press the ENTER button to memorize the new input setup.

Press the left/right arrows to select the flag F and then press the ENTER button to confirm that you want change the flag. Use the vertical arrows to change the aspect ratio.

Press ENTER to confirm the change or EXIT to escape.

Select with the vertical arrows the correct memory bank you want.

Press EXIT to escape it.

Press ENTER to confirm and to save data.

Use the horizontal arrows to select the bank name only. Press ENTER to enter in write mode and change the letters with the vertical arrows.

Press ENTER to confirm the name or EXIT to escape.

Select with the vertical arrows to select one of the following items: Load, Copy, Move or Del and press ENTER to confirm.

To pass from the right side menu to the left side menu use the ENTER button and return back by the EXIT button.

To exit from this MENU, press the EXIT button. The projector will return to the previous menu.

Press the ESC... button. to remake the menu.

4.14.6 · Load

This item on the MEMORY MANAGER menu permits users to load and change a preset memory bank, containing all the adjustments of the projector.

This is possible only if there is a match between the input frequencies and the frequencies memorized in the memory bank.

Use the up/down arrows and the left arrow to select the LOAD item. Then press the ENTER button to confirm, the following picture will appear.

WORK 01		MEMORY		MANAGER	
	BN	NAME	F	HOR	VER
LOAD	01	PAL	N	15.6	50
	02	NTSC	N	15.7	60
COPY	03	PAL.16/9	W	15.6	50
	04	NTSC16/9	W	15.7	60
MOVE	05				
DEL	06				
	07				
		LOAD BANK?			

Use the up/down arrows to select a memory bank from 01 to 25 and press the ENTER button. The following message will appear down the table.

> **LOAD BANK XX?**

Press the ENTER button to confirm or the EXIT button to escape.

If the input signal frequencies (Horizontal and Vertical) match the selected memory bank, it will be recalled and the projector will show the following message at the bottom of the menu:

> **DONE**

Otherwise you get the following message:

> **ABORTE: FREQ NOT MATCH**

If you press the ENTER button, the memory bank number will appear under the label WORK.

Press the EXIT button to exit from this menu. The projector will return to the previous menu.

Press the ESC... button to remake the menu.

4.14.7 · COPY

This item on the MEMORY MANAGER menu permits copying of a preset memory bank, containing all the registration parameters of the projector, in another memory bank.

Use the up/down arrows to select the COPY item and press the ENTER button, the following message will appear at the bottom line.

> **COPY FROM?**

Use the up/down arrows to select a memory bank (from 01 to 25) to replace and press the ENTER button. The memory bank chosen is highlighted. The following message will appear at the bottom line:

> **COPY FROM XX TO?**

Use the up/down arrows to select the destination memory bank where to copy the previously selected memory bank (from 01 to 25) and press the ENTER button. The following message will appear:

> **COPY FROM XX TO YY?**

4. For confirmation press the ENTER button. If the destination memory bank is empty, the projector will ask you to enter a new bank name and the following message will appear:

> **MODIFY BANK NAME**

Use the up/down arrows to select the characters of the bank name (LABEL). Use the left/right arrows to change the cursor position on the screen on the desired letter of the bank name. Repeat this operation until the LABEL name is completed and press the ENTER button. The following message will appear:

> **DATA SAVED**

Press the EXIT button to exit from this MENU. The projector will return to the previous menu.

Press the ESC... button to return to the external video mode.

Note: *The operation will be made even if the input signal frequencies (Horizontal and Vertical) don't match the memory bank frequencies, if the target bank has the bank name (LABEL). In this case the adjustments are not executed.*

4.14.8 · MOVE

This item on the MEMORY MANAGER menu permits movement of a memory bank into an other list position.

Use the up/down arrows to select the MOVE item of the left menu and press enter to confirm. The following message will appear.

MOVE FROM?

Use the up/down arrows to select the source memory bank to move (from 01 to 25) and press the ENTER button to confirm. The following message will appear.

MOVE FROM XX TO?

Use the up/down arrows to select an empty destination memory bank (from 01 to 25) and press the ENTER button. The following message will appear

MOVEFROM XX TO YY?

Press the ENTER button to confirm, the following message will appear.

DONE

Press the EXIT button to exit from this MENU. The projector will return to the previous menu.

Press the ESC... button to remake the menu.

Note: *If the destination memory bank isn't empty the projector overwrite with the loss of the old data.*

4.14.9 · DELETE

This item on the MEMORY MANAGER menu permits deletion of a memory bank.

Use the up/down arrows to select the DELETE item of the left menu and press the ENTER button. The following message will appear.

DELETE BANK?

Use the vertical arrows to select the memory bank to delete and press the ENTER button. The projector will show the following message:

DELETE BANK XX?

Press the ENTER button to delete the memory bank and the memory bank will be cleared from the right side menu. The projector will show the following message:
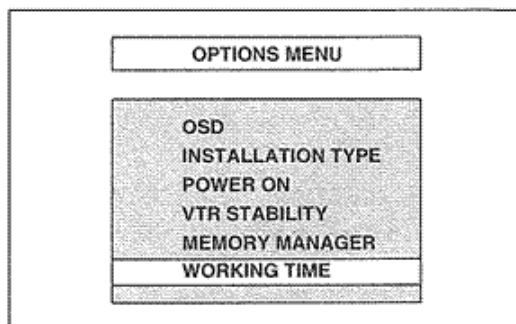
DONE

The cursor will return on the left side menu.

If the memory bank to delete is the memory bank in use, the software erase the memory bank and the software will load the first memory bank with the same frequencies of the input.

4.15 · WORKING TIME

• To see working time of every tube and the rear projector.

• To see working times, you must enter in **Installation Mode** *(ref. 5.16 INSTALLATION MODE)*.

```
OPTIONS MENU

OSD
INSTALLATION TYPE
POWER ON
VTR STABILITY
MEMORY MANAGER
WORKING TIME
```

Press the OPT button. The following menu will appear.

```
WORKING TIME

RED TUBE     00001H
GREEN TUBE 00001H
BLUE TUBE   00001H
PROJECTOR  00001H
```

Use the up/down arrows to select the WORKING TIME item, the following menu will appear
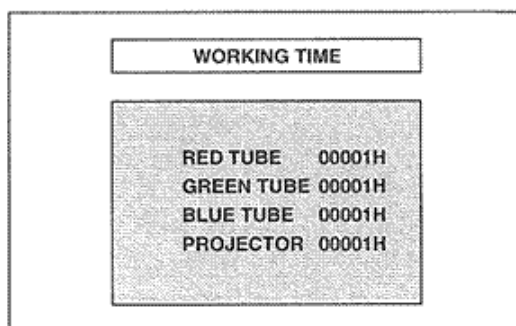
4.16 · TEST PATTERNS

To select a test pattern you must enter in INSTALLATION Mode (ref. Installation Mode at page 23). Select the item PATTERN SELECT.

Press ENTER. The following menu will appear.

Whenever you press the button you select one of the following patterns.

Press ESC... button to exit.

WHITE

CROSS - HATCH

DOTS

CROSS

H - CHAR

COLOR BARS

WINDOW

5 · INSTALLATION GUIDE

5.1 · INSTALLATION FLOW CHART

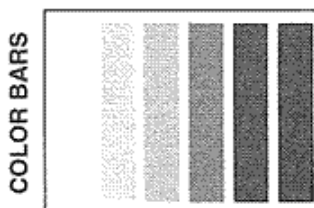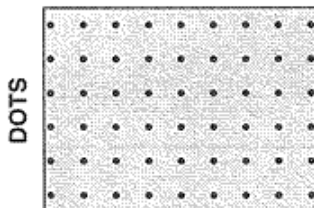The following procedure has to be followed for the installation of a projector, in order to obtain the best performance.

Note: *The projector is factory preset to operate on the ceiling for a front projection, with a 100" screen, 4/3 format and a projector-screen distance of 290 cm.*

1. **Mount the screen**

2. **Remove the cover from the top and the front of the projector.***(ref. COVER REMOVING page 38)*

3. **Choose the installation type and read carefully the relative instructions** *(ref. INSTALLATION CHOOSE page 39).* **Determine the distance between screen and front projector cover. Determine the projection angle** *(ref. PROJECTION ANGLE MEASUREMENT page 43)*

4. **Insert the correct spacers between the lenses and the stainless surfaces** *(ref. SPACERS CHANGING page 44)*

5. **Position the projector on the desk or on the ceiling and execute the projector centering procedure** *(ref. PROJECTOR CENTERING page 51),* **maintaining the same deflection connectors factory setup.**

6. **Execute a perfect focus adjustment of the three lens by the rings** *(ref. LENS FOCUS ADJUSTMENT page 51).*

7. **If the installation type is the same of the factory preset installation type, go to step 11 else continue.**

8. **Tilt the red and blue CRTs for a right superposition of the three hatch coarse images** *(ref. MECHANICAL CENTERING OF THE TUBES page 51).*

9. **Set the yokes** *(ref. MAGNETIC YOKES SETUP page 52)*

10 **Close the projector with the cover.**

11 **Execute a fine image adjustment by remote control** *(ref. FINE IMAGE REGISTRATION page 55).*

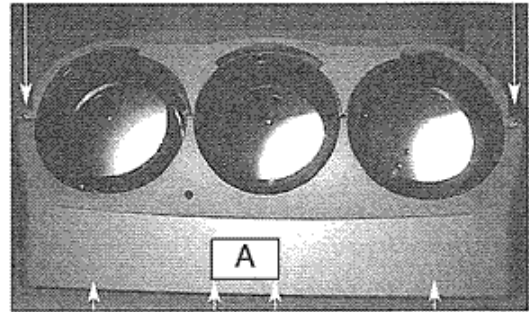## 5.2 · COVER REMOVING

5.2.1 · TOP COVER REMOVING

First of all, it's necessary to open the projector's cover; to perform this task unscrew a little the 2 fixing screws of the upper plastic cover and lift the cover. It will rotate with respect to the pivot on the bottom of the projector.

To remove completely the top cover, you must unscrew the two locking screws placed close to the two pivots.
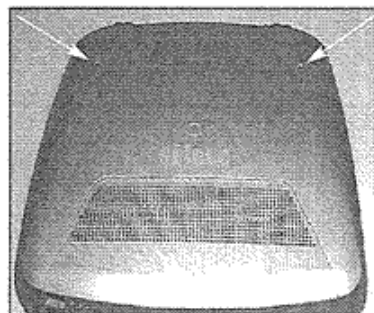
5.2.2 · FRONT COVER REMOVING

Unscrew the two screws on the left and right sides of the front panel, then unscrew the two screws on the bottom of the front panel and pull out the panel. The position of the four screws is shown by the arrows in the following picture.

On the bottom, there are two reeds to push for removing the front cover (ref. previous picture A).

5.3 · INSTALLATION TYPE

Refer to cap. 4.11

5.3.1 INSTALLATION CHOOSE

Choose one of the following possible installation:

Desktop Front Projection

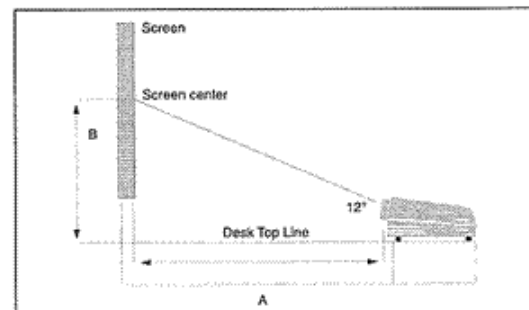**Desktop Rear Projection**

Ceiling Front Projection

Ceiling Rear Projection

5.3.2 · DESKTOP-FRONT PROJECTION

WARNING

The use of the correct spacers, as shown on the SPACERS TABLE, is mandatory for a perfect focus uniformity. Verify that the projector doesn't slide on the surface.

The distance between the projector and the screen is shown in the following table.

WARNING:

The desk surface must be parallel respect the floor. Itís very important to respect the correct projection angle.

TABLE 1: DESKTOP FRONT PROJECTOR.

A = Distance between the front cover and the screen.

B = Distance between the desk top line and the screen center.

SCREEN SIZE (DIAGONAL)			A	B
(inches)	Width (cm)	Height (cm)	(cm)	(cm)
60 "	121.9	91.4	182	60
80 "	165.5	124.1	242	73.5
100 "	203.2	152.4	293	86.5
120 "	243.8	182.9	349	97.5
150 "	304.8	228.6	429	112
180 "	365.7	274.3	512	131.5
200 "	406.4	304.8	560	146
250 "	508.0	381.0	704	176
300 "	609.6	457.2	846	205

Note: *The screen size is related to the useful screen area (aspect ratio 4/3).*

WARNING

The factory suggests to set the distance of the screen five centimeters over the default value (table 1 A) to obtain a larger image on the screen. A fine adjustment can be obtain by the SIZE regulation.

If the measure of screen diagonal isn't in the table, A is determined (in cm) using the following procedure:

Measure the diagonal screen and take the nearest value from the table.

Calculate the ratio between the A value and the screen base value on the table (Width).

Multiply the ratio result and by the measure of the screen width.

Example: *Suppose to have a 105" diagonal screen. The 100" is the nearest diagonal value in the table.*
The ratio A/Width is equal to: 290/203.2= 1.427.
A 105" diagonal screen has a base of 213.3.
So, the value of A is: 1.427 X 213.3 = 304.4 cm.

5.3.3 · DESKTOP-REAR PROJECTION

For the rear projection is suggested to install the projector with the green lens axis orthogonal to the screen plane; pay attention that the green lens axes has to be coinciding to the screen center (ref. projector centering page 1).

Using a Fresnel lens for rear projection, is mandatory to install ortogonally the projector and in the center of the screen, in order to obtain the better brightness performance.

> **WARNING**
>
> **The use of the correct spacers as shown on the SPACERS TABLE, is mandatory for a perfect focus uniformity. Verify that the projector doesn't slide on the surface.**

The distance between the projector and the screen is shown in the following table.

TABLE 2: DESKTOP REAR PROJECTOR.

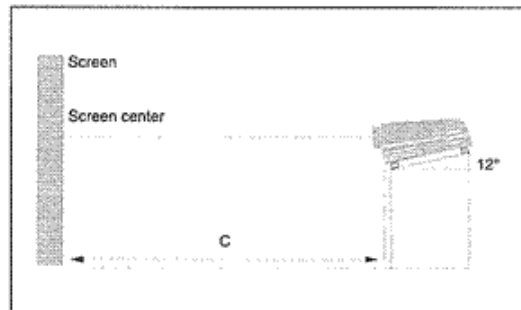C = Distance between the front cover and the screen

1 · If the measure of screen diagonal isnít in the table, C is determined (in cm) using the following procedure.

2 · Measure the diagonal screen and take the nearest value from the table.

3 · Calculate the ratio between the C value and the screen base value on the table (Width).

Multiply the ratio result and by the measure of the screen width.

SCREEN SIZE (DIAGONAL)			C
(inches)	Width (cm)	Height (cm)	(cm)
60 "	121.9	91.4	183
80 "	165.5	124.1	238
100 "	203.2	152,4	297
120 "	243.8	182.9	347
150 "	304.8	228.6	432
180 "	365.7	274.3	512
200 "	406.4	304.8	572
250 "	508.0	381.0	712
300 "	609.6	457.2	853

Example: *Suppose to have a 105" diagonal screen. The 100" is the nearest diagonal value in the table.*

The ratio A/Width is equal to: 290/203.2= 1.427.

A 105" diagonal screen has a base of 213.3.

So, the value of A is: 1.427 X 213.3 = 304.4 cm.

Note: *The screen size is related to the useful area (aspect ratio 4/3).*

5.3.4 · CEILING FRONT PROJECTION

> **WARNING**
>
> **The use of the correct spacers as shown on the SPACERS TABLE, is mandatory for a perfect focus uniformity.**

In order to install the projector on to the ceiling, use the ceiling mounting kit (included in the projector packaging) and follow this installation procedure:
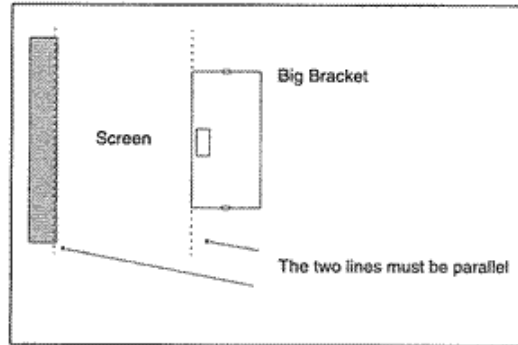
> **WARNING:**
>
> **The ceiling must have sufficient strength to support the projector's weight.**

1 · Fix on the ceiling the big bracket included in the packaging, by four screws.

2 · Put the projector on a table in the Vertical position (left or right side).

3 · Fix the left bracket by 2 screws with its washers. See the following picture.

4 · Repeat the point 3. for the right bracket.

WARNING:

The bracket must be fixed very carefully and it must be parallel to the screen.

WARNING:

SIM2 MULTIMEDIA S.p.a. declines any responsibility for material and people damages caused by a wrong or negligible ceiling mechanical mounting.
Every operation has to be made by a service technician for safety.

---

5 · The projector has to be rotated up side down; then, hang from the ceiling mounting bracket.
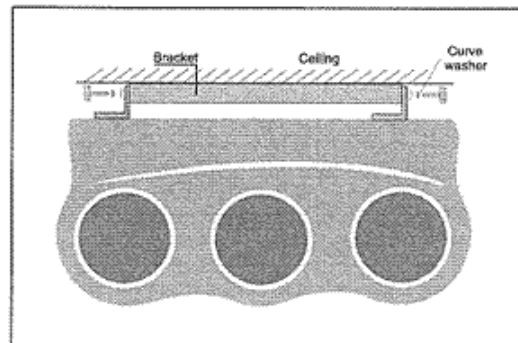
6 · Tilt down the projector in order to center the vertical image and screw the two hand grips.
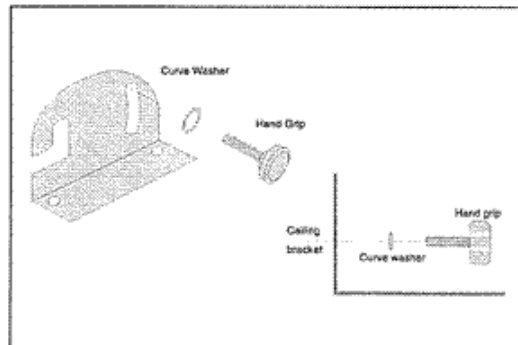
Note: *Insert the special curve washer between the ceiling bracket and the hand grip. For a correct installation the washer concave surface must be inserted toward the ceiling bracket. Use only the supplied installing kit for safety purposes.*

Note: *The tilt between the base plane of the projector and the lens axes is 12°.*

TABLE 3: CEILING FRONT PROJECTOR.

D = Distance between the first hole row of the ceiling mounting bracket and the screen

E = Distance between the ceiling and the screen center

Note: *The screen size is related to the useful screen area (aspect ratio 4/3)*

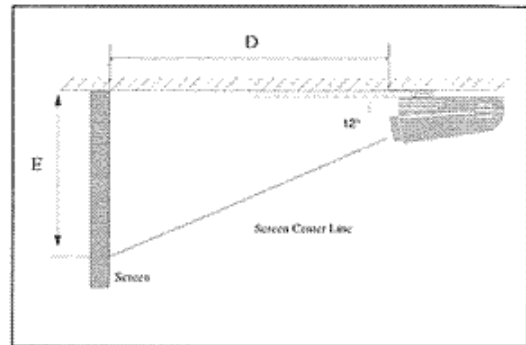| SCREEN SIZE (DIAGONAL)			D	E
(inches)	Width (cm)	Height (cm)	(cm)	(cm)
60"	121.9	91.4	204	67.5
80"	165.5	124.1	258	81.0
100"	203.2	152,4	315	94.0
120"	243.8	182.9	364	95.0
150"	304.8	228.6	447	119.5
180"	365.7	274.3	525	139.0
200"	406.4	304.8	585	153.5
250"	508.0	381.0	721	183.5
300"	609.6	457.2	858	212.5

5.3.5 · CEILING REAR PROJECTION

WARNING

The use of the correct spacers as shown on the SPACERS TABLE, is mandatory for a perfect focus uniformity.

The rear installation could be made hanging the projector to the ceiling. In this case, the projector has to be positioned referring both to the ceiling front installation.

WARNING:

SIM2 MULTIMEDIA S.p.a. declines any responsibility for material and people damages caused by a wrong or negligible ceiling mechanical mounting.

This operation has to be made by a service technician for safety.

5.4 · PROJECTION ANGLE MEASUREMENT

Use a goniometer to detect the projection angle. First of all, remove the projector upper cover , then use the surface indicated by the arrow on the following figure as reference for the goniometer.

The reference surface has an angle of 12 degrees refereed to the projector base.

5.5 · SPACERS

The projector uses some spacers for the "Scheimpflug" correction of the lens tilt, in order to reach a perfect focusing uniformity on the whole screen surface.

The projector is factory preset with spacers for a ceiling-front installation of 100" diagonal screen.

The projector is equipped with a complete set of optional spacers for screens from 60" up to 300".

The spacers are mounted between the lens and the tube mounting block surface, where the lens is fixed by 4 screws.

In order to reach the right thickness, could be necessary to mount more then one spacer.

WARNING

The use of the correct spacers, as shown on the SPACERS TABLE, is mandatory for a perfect focus uniformity.

5.5.1 · SPACERS CHANGING

For changing the default spacers, first of all, remove the upper plastic cover and the frontal plastic cover (ref. cover removing page 28).

Then, unscrew a little the 4 lens screws of each color tube, replace the spacers (ref. Spacers Changing page 23) tighten the 4 screws.

For different types of installation, here with are shown the different spacers combinations to be mounted on the lenses.
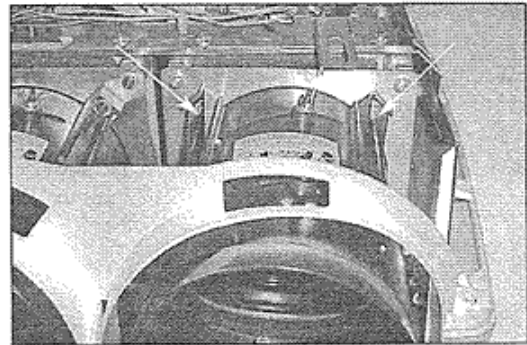
Note:

• The spacers have the thickness expressed in millimeters.

• The spacers have the thickness value impressed in their body and, in the packaging kit there are the following pieces included:

0.2 mm:	6 pieces
0.3 mm:	6 pieces
0.5 mm:	4 pieces
1 mm:	6 pieces
2 mm:	4 pieces

The spacers of 1mm (6 pieces) and the spacers of 0.5mm (4 pieces) are used for the factory setup (100" 12°), while the others are inside the packing kit.

PUT THE RIGHT SPACERS HERE

CRT LENS

Note: *The angle between the base of the projector and the axes of the tubes, is mechanically fixed at 12°, so, if the projector is installed on a perfectly horizontal table, the projection angle is 12°.*

The figure shows where the spaces must be inserted with the values reported in the following table.

In the previous picture you can see only two screws, the others two are under the CRT.

5.5.2 · SPACERS TABLE

	BLUE		GREEN		RED	
60" **12°**	1 0,5 0,2	2 0,3	1 0,5 0,2	1 0,5 0,2	2 0,3	1 0,5 0,2
	0	0,3 0,3	0	0,3 0,3	0,3 0	0,3 0,3
60" **15°**	1 0,5 0,5	2 0,5 0,2	2	2	2 0,5 0,2	1 0,5 0,5
	0	0,3 0,3	0	0,3 0,3	0,3 0	0,3 0,3
60" **18°**	1 1 0,2 0,2	2 1	2 0,3	2 0,3	2 1	1 1 0,2 0,2
	0	0,3 0,3	0	0,3 0,3	0,3 0	0,3 0,3

	BLUE	GREEN	RED
80" **12°**			
80" **15°**			
80" **18°**			

	BLUE	GREEN	RED
100" **12°**			
100" **15°**			
100" **18°**			

	BLUE	GREEN	RED
120" **12°**	1 · 1 CRT LENS 0 · 0,2	1 · 0,2 CRT LENS 0 · 0	1 · 1 0,2 · 0,2 CRT LENS 0,2 · 0
120" **15°**	1 · 1 0,3 · 0,5 CRT LENS 0 · 0,2	1 · 1 0,2 · 0,2 CRT LENS 0 · 0	1 · 1 0,5 · 0,3 CRT LENS 0,2 · 0
120" **18°**	1 · 1 0,5 · 0,5 0,2 CRT LENS 0 · 0,2	1 · 1 0,3 · 0,3 0,2 · 0,2 CRT LENS 0 · 0	1 · 1 0,5 · 0,5 0,2 · 0,2 CRT LENS 0,2 · 0

	BLUE	GREEN	RED
150" **12°**	0,5 · 1 0,2 CRT LENS 0 · 0,2	0,5 · 0,5 0,2 · 0,2 CRT LENS 0 · 0	1 · 0,5 0,2 CRT LENS 0,2 · 0
150" **15°**	1 · 1 0,2 CRT LENS 0 · 0,2	1 · 1 CRT LENS 0 · 0	1 · 1 0,2 CRT LENS 0,2 · 0
150" **18°**	1 · 1 0,2 · 0,3 CRT LENS 0 · 0,2	1 · 1 0,2 · 0,2 CRT LENS 0 · 0	1 · 1 0,3 · 0,2 CRT LENS 0,2 · 0

	BLUE	GREEN	RED
180" 12°	0, / 0,3 ··· 1 · CRT LENS · 0,2 ··· 0,3	0,5 / 0,2 ··· 0,5 / 0,2 · CRT LENS · 0 ··· 0	1 ··· 0,5 / 0,3 · CRT LENS · 0,3 ··· 0,2
180" 15°	1 ··· 1 / 0,2 · CRT LENS · 0,2 ··· 0,3	0,5 / 0,3 ··· 0,5 / 0,3 · CRT LENS · 0 ··· 0	1 / 0,2 ··· 1 · CRT LENS · 0,3 ··· 0,2
180" 18°	1 / 0,2 ··· 1 / 0,3 · CRT LENS · 0,2 ··· 0,3	1 ··· 1 · CRT LENS · 0 ··· 0	1 / 0,3 ··· 1 / 0,2 · CRT LENS · 0,3 ··· 0,2

	BLUE	GREEN	RED
200" 12°	0,3 / 0,3 ··· 1 · CRT LENS · 0,2 ··· 0,3	0,5 / 0,2 ··· 0,5 / 0,2 · CRT LENS · 0 ··· 0	1 ··· 0,5 / 0,3 · CRT LENS · 0,3 ··· 0,2
200" 15°	0,5 / 0,3 ··· 1 · CRT LENS · 0,2 ··· 0,3	0,5 / 0,2 ··· 0,5 / 0,2 · CRT LENS · 0 ··· 0	1 ··· 0,5 / 0,3 · CRT LENS · 0,3 ··· 0,2
200" 18°	1 ··· 1 / 0,2 · CRT LENS · 0,2 ··· 0,3	1 ··· 1 · CRT LENS · 0 ··· 0	1 / 0,2 ··· 1 · CRT LENS · 0,3 ··· 0,2

	BLUE	GREEN	RED

250"
12°

BLUE: 0,5 / 0,3 (left top), 1 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 0,5 / 0,2 (left top), 0,3 / 0,2 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 0,5 / 0,3 (left top), 0,5 / 0,2 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

250"
15°

BLUE: 0,5 / 0,3 (left top), 1 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 0,5 / 0,2 (left top), 0,5 / 0,2 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 1 (left top), 0,5 / 0,3 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

250"
18°

BLUE: 0,5 / 0,3 (left top), 1 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 0,5 / 0,2 (left top), 0,5 / 0,2 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 1 (left top), 0,5 / 0,3 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

	BLUE	GREEN	RED

300"
12°

BLUE: 0,3 / 0,2 / 0,2 (left top), 0,5 / 0,3 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 0,5 (left top), 0,5 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 0,5 / 0,3 (left top), 0,3 / 0,2 / 0,2 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

300"
15°

BLUE: 1 / 0,2 (left top), 1 / 0,3 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 1 (left top), 1 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 1 / 0,3 (left top), 1 / 0,2 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

300"
18°

BLUE: 1 / 0,2 (left top), 1 / 0,3 (right top), 0,2 (left bottom), 0,3 (right bottom) — CRT LENS

GREEN: 1 (left top), 1 (right top), 0 (left bottom), 0 (right bottom) — CRT LENS

RED: 1 / 0,3 (left top), 1 / 0,2 (right top), 0,3 (left bottom), 0,2 (right bottom) — CRT LENS

	BLUE	GREEN	RED

60"
0°

0		0,5
	CRT LENS	0,2
		0,5
0		0,2

0		0
	CRT LENS	
0		0

0,5		0
0,2	CRT LENS	
0,5		0
0,2		

80"
0°

0		0,5
	CRT LENS	
0		0,5

0		0
	CRT LENS	
0		0

0,5		0
	CRT LENS	
0,5		0

100"
0°

0		0,3
	CRT LENS	
0		0,3

0		0
	CRT LENS	
0		0

0,3		0
	CRT LENS	
0,3		0

120"
0°

0		0,2
	CRT LENS	
0		0,2

0		0
	CRT LENS	
0		0

0,2		0
	CRT LENS	
0,2		0

150"
0°

0,2		0,3
	CRT LENS	
0,2		0,3

0		0
	CRT LENS	
0		0

0,3		0,2
	CRT LENS	
0,3		0,2

180"
0°

0,2		0,3
	CRT LENS	
0,2		0,3

0		0
	CRT LENS	
0		0

0,3		0,2
	CRT LENS	
0,3		0,2

300"
0°

0,2		0,3
	CRT LENS	
0,2		0,3

0		0
	CRT LENS	
0		0

0,3		0,2
	CRT LENS	
0,3		0,2

5.6 · PROJECTOR CENTERING

For a good installation the first step is to center the projector respect the screen. This task could be easily performed using two equal length chords as showed in the following figure:

It is necessary to check that the position of the two corners in the front side of the projector collimates with the position of the chords, as shown in the picture.

Performing this task it is guaranteed that the screen and the projector are in orthogonal position and in the middle, being this one essential condition to obtain the best performance of the projector.
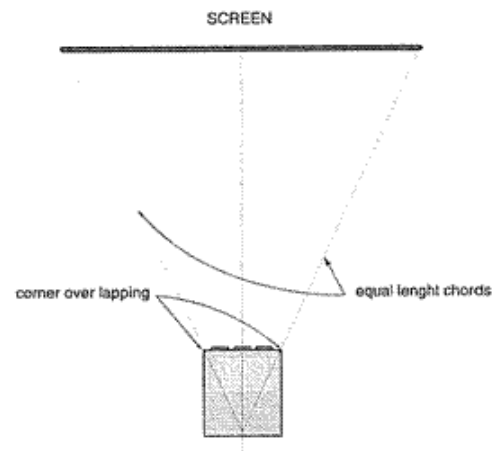
5.7 · OPTICAL AND ELECTRICAL ADJUSTEMENTS

Switch ON the projector using the mains switch ON on the left side of the rear panel; the light of the LED indicates the stand by state. If the set remains in stand-by, press the ON button on the remote control or the buttons on the back panel. The green lighting of the led indicates the ON state.

To switch-OFF the projector, press the OFF button on the remote control, then switch OFF the mains switch. Proceed in the installation by using projector internal patterns.

It is possible to display the internal patterns by pressing the TEST button on the full functions (RC3000) remote control and select the right pattern.

5.8 · LENS FOCUS ADJUSTEMENTS

The lens focus adjustment must be performed on each lens separately. This adjustment must be carried out with only one CRT working per time, performing the following procedure:

1 · Select the HATCH pattern by pressing the TEST button on the full function remote control. If you prefer, you can use an external pattern signal.

2 · Adjust a low contrast (i.e. 30) and a medium-low background brightness (i.e. 30).

3 · Switch-OFF the other CRTs by the R, G or B buttons of the full functions remote control.

4 · Loosen the rear wing nut B (see the following figure).of Green lens, turn clockwise or anticlockwise (see arrows) the lens assembly, to adjust the cross hatch focus on the screen center. Lock the rear wing nut B when the best focus is performed.

5 · Loosen the wing nut A on the front of Green lens, turn clockwise or anticlockwise (see arrows) the lens assembly to adjust focus on the screen borders. Lock the wing nut A when best focus is performed.
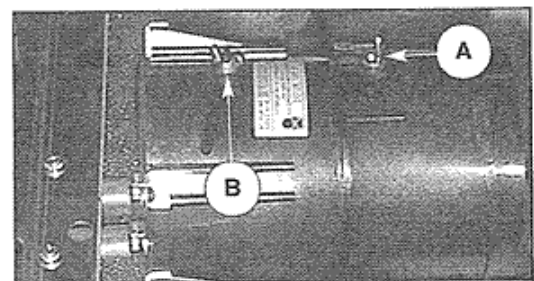
6 · Move close to the screen and check the result; if necessary repeat adjustments for the best result.

7 · Carry out the adjustments 3), 4), and 5) on the Red and Blue lenses.

WARNING

Do NOT move the Electric-Static-Focus potentiometers. They are perfectly set in the company and must only be adjusted by qualified service-technician.

5.9 · MECHANICAL CENTERING OF THE TUBES

Select the CROSS HATCH signal with the TEST button of the full functions remote control (ref.). For a different installation from factory setup (100" diagonal screen), it may be necessary to adjust the mechanical centering of the red and blue tubes. Referring to the following picture, unscrew (only two turns!) the screws 1-2 of the blue tube.
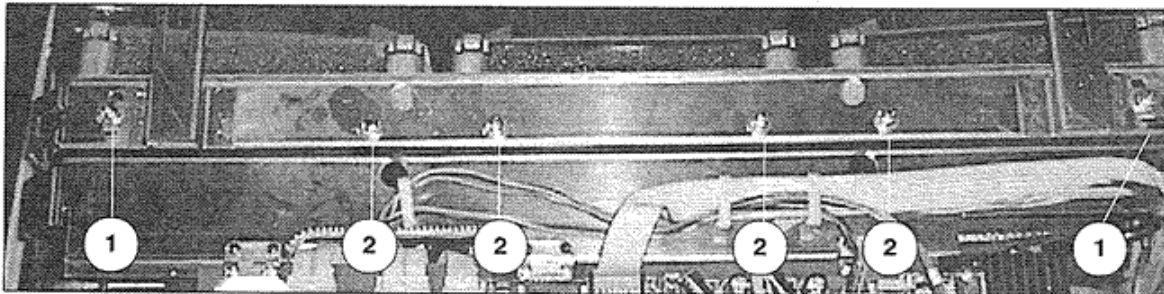
Then unscrew the screws 3 (only two turns!) of blue CRT, see the following picture. The cross screwdriver must be inserted between the blue CRT and the left projector side (see the following picture). The screw 3 is on the bottom tube base.

Move mechanical the blue tube until the superimposition of the vertical blue cross on the vertical green cross is performed.

Don't forget at the end to tighten again the three screws, locking each tube.

Repeat the same operations for the red tube.

At this point it can necessary to check again the R and B lens focus (ref. lens focus adjustment page 39).
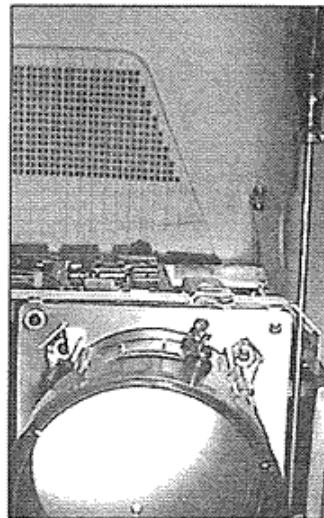
5.10 · YOKE MAGNETIC RINGS SETUP

WARNING READ VERY CAREFULLY THIS CHAPTER.

If you must change the factory installation type, read this chapter.

1 · Switch on the videoprojector without changing the factory setup.

2 · Use a monoscope signal (or a signal with central reference) as input signal and mark the image center on the screen.

3 · Switch off the videoprojector.

4 · Execute the correct setup for deflection connectors *(ref. SETTING OF DEFLECTION CONNECTORS in the next page)*.

5 · Unscrew the two screws on the bracket in the middle of the projector top and tilt the deflection board DB1

(ref. the following picture).

6 · Switch ON the projector.

7 · Select the installation type *(ref. 4.1 INSTALLATION TYPE chapter)* to load the correct adjustment values.

8 · Use the DEF CENT menu (H and V) *(ref. 6.3 DEFLECTION CENTER chapter)* to replace the image on the screen center. If using the DEF CENT menu you can't place the image on the screen center, exec the following instructions.

WARNING
EXEC THE FOLLOWING INSTRUCTIONS ONLY IF THE RASTER IS NOT AT THE CENTER.

---

9 · Use the rings on the deflection yokes (centering magnets A and B) to move the image center at the green tube, on the central reference of the screen. Repeat the setup for all CRTs.
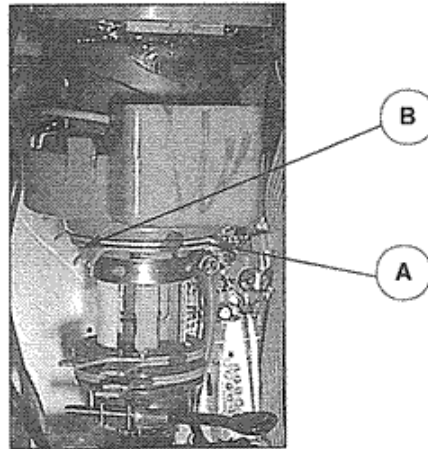
5.11 · SETTING OF DEFLECTION CONNECTORS

Looking the projector from the back panel, on the right side near the Blue CRT, there are visible the 3 connectors of the Horizontal deflections and the 3 connectors of the Vertical deflections

(ref. the bottom figure).
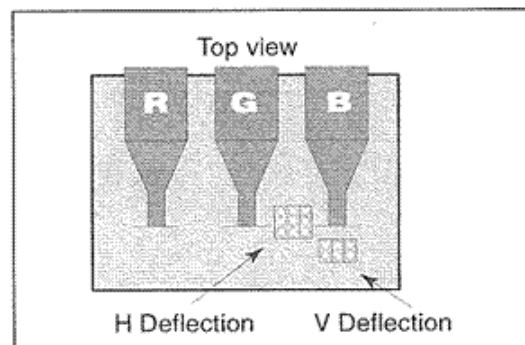
The settings of the deflection connectors have to be performed as showed on the following figures:
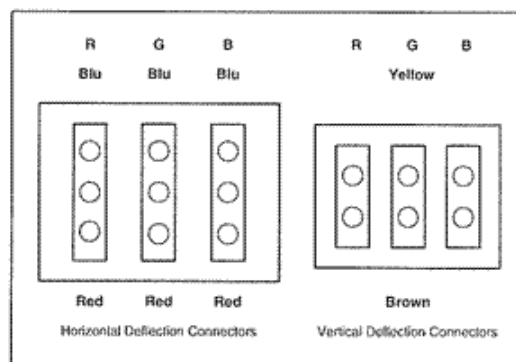

DESK-TOP FRONT

R	G	B		R	G	B
Blu	Blu	Blu			Brown	
Red	Red	Red			Yellow	

Horizontal Deflection Connectors · Vertical Deflection Connectors

CEILING FRONT

R	G	B		R	G	B
Red	Red	Red			Yellow	
Blu	Blu	Blu			Brown	

Horizontal Deflection Connectors · Vertical Deflection Connectors

DESK-TOP REAR

R	G	B		R	G	B
Red	Red	Red			Brown	
Blu	Blu	Blu			Yellow	

Horizontal Deflection Connectors · Vertical Deflection Connectors

CEILING REAR

R	G	B		R	G	B
Blu	Blu	Blu			Yellow	
Red	Red	Red			Brown	

Horizontal Deflection Connectors · Vertical Deflection Connectors

6 · CONVERGENCE

6.1 · FINE IMAGE REGISTRATIONS

This Paragraph is very important to realize a fine image adjustment after the installation of the projector.

To make the deflection and convergence setup, read carefully these pages.

ATTENTION:

It's very important to synchronize the projector with the input signals which are used more frequently. For every signal, you must memorize the setup into the memory banks.

6.2 · DEFLECTION

Firs of all, you must enter in INSTALLATION MODE *(ref. Installation Mode at page 23)*.

Select the item DEFLECTION. Press ENTER to enter in deflection setup. In Ths mode you can exercise all the regulations necessary to align well the green CTR image to the screen center.

If you are not familiar with the projector regulations, read carefully this paragraph.

6.3 · DEFLECTION CENTER

The horizontal DEF CENTS is a PHASE control and it has not affect on the internal patterns.

This items permits to center the external signal image respect to the raster.

Use the arrows keys in order to center the green image with respect to the screen center.

Press the EXIT or ENTER buttons to change the item.

IMAGE

RASTER

DEFL CENT

H. = 46   V. = 45
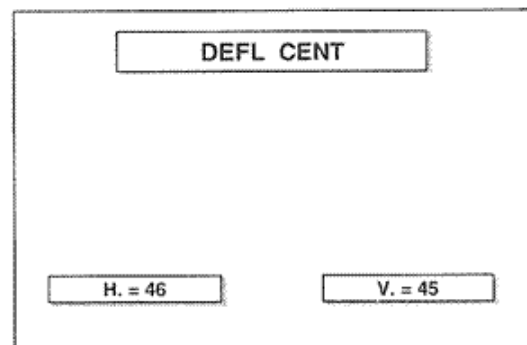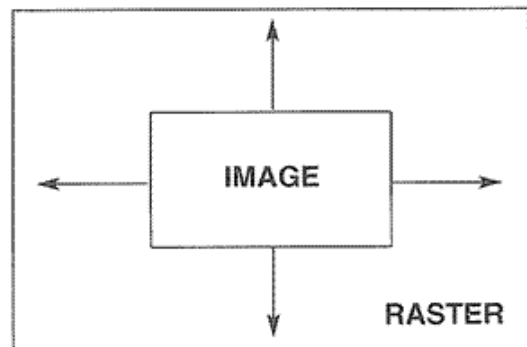
6.4 · DEFLECTION LINEARITY

The item allows setting the distance between the cross hatch lines to be equal.
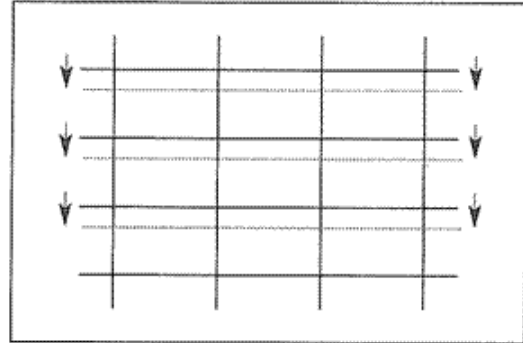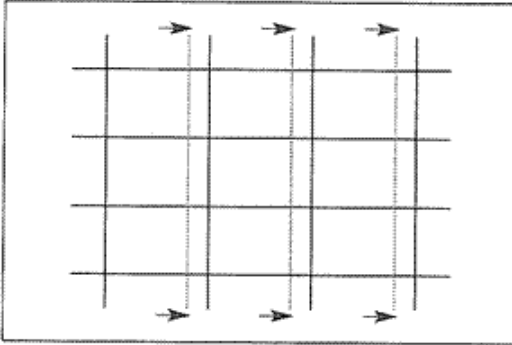
Use the left/right arrows to setup the H. linearity.

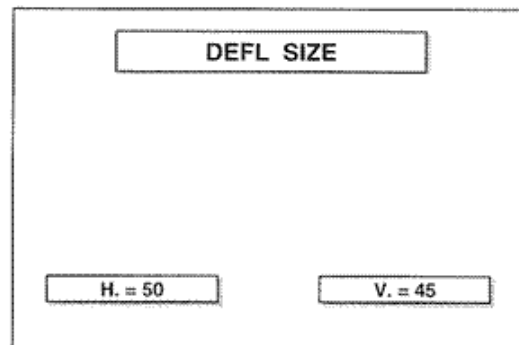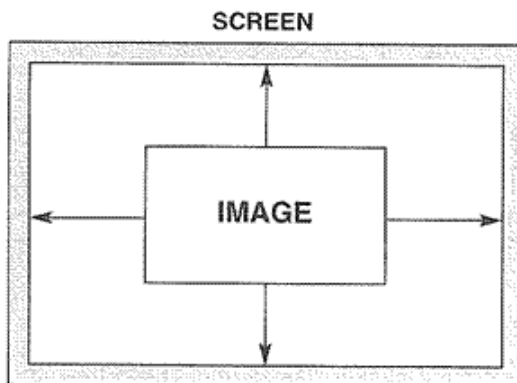Use the up/down arrows to setup the V. linearity.

Press the ENTER or EXIT buttons to change the item.

Press ESC... to exit.

DEFL LIN

H. = 45   V. = 45
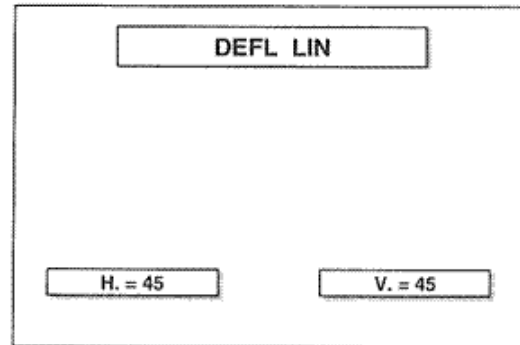
6.5 · DEFLECTION SIZE

This item permits to resize the image dimensions.

SCREEN

IMAGE

DEFL SIZE

H. = 50   V. = 45

Use the arrows to change the values.

Press the ENTER or EXIT buttons to change the item.

Press ESC... to exit.

WARNING:

If the raster size is directly related to the projector resoluzion. So smaller is the raster size less resolution you get from the set.

6.6 · DEFLECTION KEYSTONE

This item permits to realize the keystone setup.
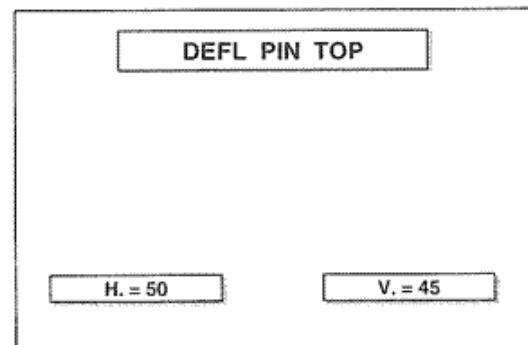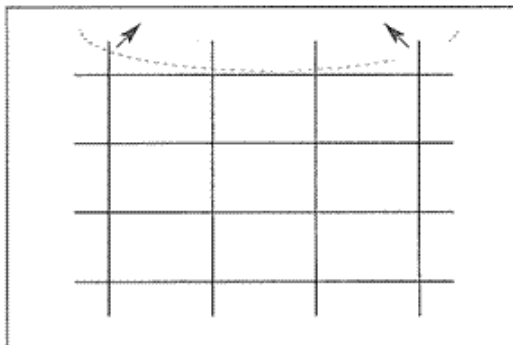
DEFL KEY

H. = 46   V. = 45
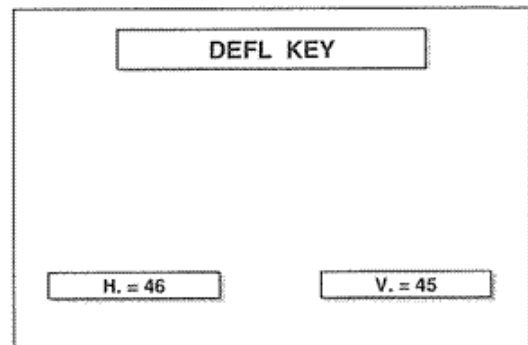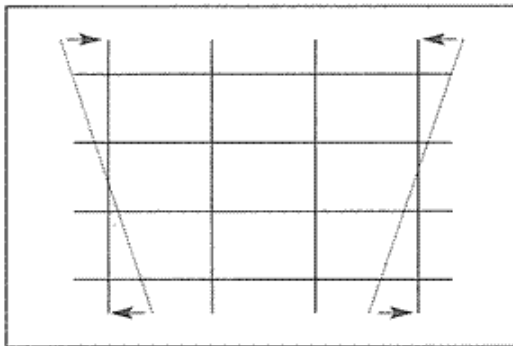
Use the left/right arrows to change the keystone setup.

Press the ENTER or EXIT buttons to change the item.

Press ESC... to exit.

6.7 · DEFLECTION PINCUSHION TOP

This item permits to setup the top and horizontal pincushion.

DEFL PIN TOP

H. = 50   V. = 45

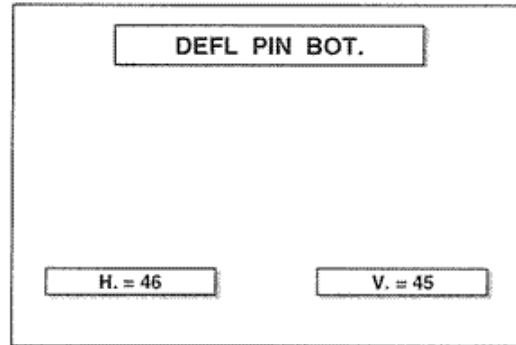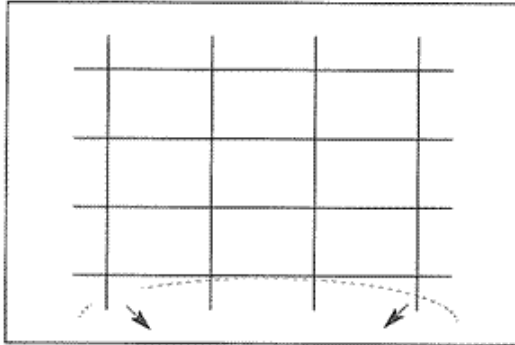Use the up/down arrows keys in order to obtain the top image border as a straight horizontal.

Use the left/right arrows in order to obtain the vertical image borders as a straight lines.

Press the ENTER or EXIT buttons to change the item.

Press ESC... to exit.

6.8 · DEFLECTION PINCUSHION BOTTOM

This item permits to setup the bottom and horizontal pincushion.

```
DEFL  PIN  BOT.


H. = 46                    V. = 45
```

Use the up/down arrows keys in order to make the bottom horizontal image border as a straight lines.

Use the left/right arrows keys in order to obtain the vertical image borders as a straight lines.

Press the ENTER or EXIT buttons to change the item.

Press ESC... to exit.

NOTE:
It could be necessary repeat the regulation loop more than once. If the projector is well positioned, it will only be necessary few small adjustments.

6.9 · HOW TO MEMORIZE THE DEFLECTION SETUP

To memorize the deflection, press the MEMO button.

So you enter in MEMORY MANAGER and the following picture will appear.

The current bank memory is highlighted.

Use the up/down arrows to select in which memory bank you want to memorize the convergence setup and press ENTER to confirm, or press EXIT to escape.

WORK 01	MEMORY		MANAGER	
	BN	NAME	F	HOR	VER
LOAD	01	PAL	N	15.6	50
	02	NTSC	N	15.7	60
COPY	03	DN	W	15.6	50
	04	....	....	....	....
MOVE	05	....	....	....	....
DEL	06	....	....	....	....
	07	....	....	....	....
		LOAD BANK			

6.10 · CONVERGENCE BOARD

On the following picture, there are pointed out of the positions where the pumpers have to be inserted in order to execute correctly the convergence adjustement.
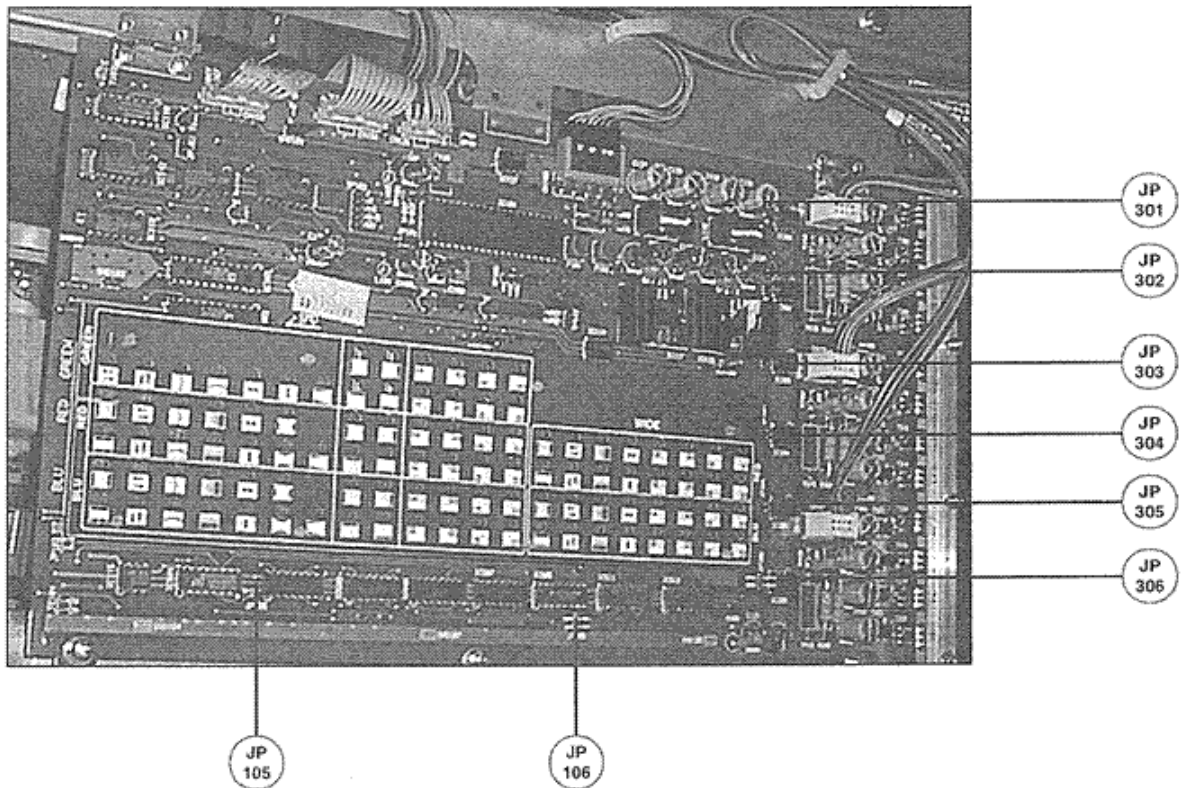
6.11 · MANUAL CONVERGENCE

The following procedure must be executed by autorized serviceman only.

It is helpful to use one Service Remote Control to switch the CRTs off, otherwise it is necessary to cover the lenses whith the caps.

The SVP 350 videoprojector is factory setted for a Ceiling-Front installation with a 100" screen and 12° inclination angle.

If the final installation of the videoprojector is realized in a similar configuration, it is not necessary to follow all the complete convergence installation procedure, it is ennough to readjust the trimmers of the functions that appear not perfecly in convergence using the internal cross-hatch pattern. It is also not necessary to insert the jumpers to disable borders, corners and H/V single CTR driver convergence corrections.

For installation conditions different from the factory standard set-up of the videoprojector, we suggest to follow the complete procedure reporter here below.

6.12 · MANUAL CONVERGENCE ADJUSTING PROCEDURE

Insert on the Manual Convergence Board PC153 board the jumpers:

JP 105: disable borders adjusting functions

JP 106: disable corners adjusting functions

JP 301: disable Hor. Red CRT conv. driver

JP 302: disable Vert. Red CRT conv. driver

JP 303: disable Hor. Green CRT conv. driver

JP 304: disable Vert. Green CRT conv. driver

JP 305: disable Hor. Blu CRT conv. driver

JP 306: disable Vert. Blu CRT conv. driver

Be sure that all the convergence trimmers of the PC153 board are in the central position.

Switch the videoprojector on and wait 20 minutes (warm-up time).

Connect one external video signal to the VPJ input.

Select the internal cross-hatch test pattern in Normal Screen format (4/3) configuration.

Execute the mechanical convergence of the two CRTs Red and Blue on Green and obtain an accurate focusing of the picture on all the three CRTs both in the central area and on its surrounding edges adjusting the respective projections lenses.

Remove the jumpers JP 303 and JP 304

Execute the deflection set-up *(see chapter 4.11, 5.11 and 6.2 to 6.9)*.

Execute the manual convergence set-up following step by step the procedure reported here below.

Note: *this description is concerned to a ceiling front videoprojector installation. For desktop front or rear installations the graphics symbols related to the convergence calibration trimmers may be inverted left/right and top/down respect to the effect on the screen.*

6.13 · GREEN CRT CONVERGENCE CORRECTIONS

Cover the Red and the Blue CRTs.

Adjust the following trimmers concerning the Green CRT corrections:

After convergence set-up on the Green CRT, it must be realize the better superimposition of the Red and subsequently of the Blue lines on the Green cross-hatch picture.

HORIZONTAL SKEW

VERTICAL SKEW

HORIZONTAL CURVATURE

VERTICAL CURVATURE

HORIZONTAL SHIFT

VERTICAL SHIFT

VERTICAL KEYSTONE

6.14 · RED CRT CONVERGENCE CORRECTIONS

Remove the jumpers JP 301 and JP 302

Cover the Blue CTR Red ,and Green CTRs On..

Adjust the following trimmers concerning the Red CRT calibration in the sequence reported here below:

HORIZONTAL SKEW

VERTICAL SKEW

HORIZONTAL CURVATURE

VERTICAL CURVATURE

HORIZONTAL SHIFT

VERTICAL SHIFT

VERTICAL KEYSTONE

HORIZONTAL LINEARITY

VERTICAL LINEARITY

HORIZONTAL PINCUSHION

VERTICAL PINCUSHION

HORIZONTAL AMPLITUDE

VERTICAL AMPLITUDE

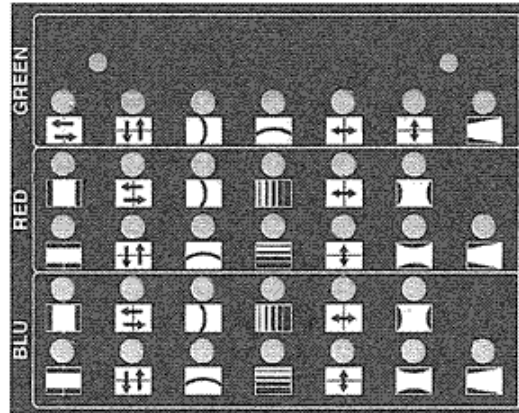## 6.15 · BLUE CRT CONVERGENCE CORRECTIONS

Remove the jumpers JP305 and JP306

Cover the Red CRT, Blue and Green CRTs on.

Adjust, as in the previous section, the trimmers concerning the Blue CRT calibration in order to obtain the superimposition of the blue on the green cross-hatch image.
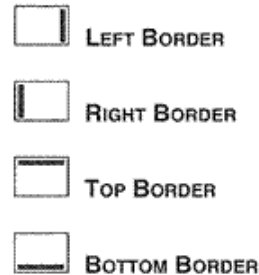
6.16 · RED ANS BLUE CRTs BORDERS CORRECTIONS

To obtain the better superimposition of the borders of the cross-hatch picture there are available the Borders calibration trimmers relative to the Red and Blue CRTs.
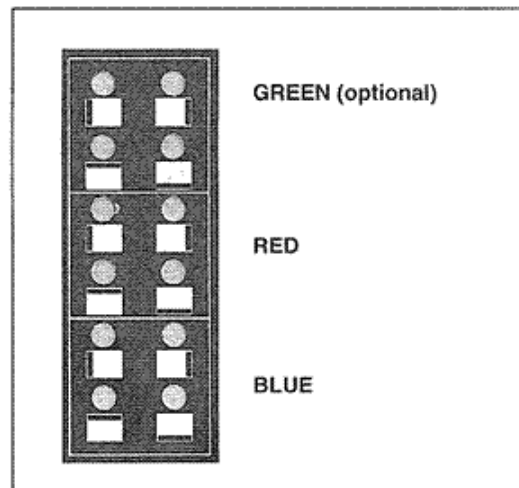

Remove the jumper JP105

Cover the Blue CTR the Red and Green CRTs on.

Adjust the following trimmers concerning the Red CRT Borders calibration to obtain the better superimposition with the green image:

Cover the Red CTR, Blue and Green CRTs on.

Adjust the analogous trimmers concerning the Blue CRT Borders calibration.

Note: *the trimmers for the Green Borders calibration are not present on the PC153 board, optionally they may be inserted for double projection system applications.*

LEFT BORDER

RIGHT BORDER

TOP BORDER

BOTTOM BORDER


GREEN (optional)

RED

BLUE

6.17 · GREEN CRT CORNERS CORRECTIONS

To obtain the better superimposition of the corners of the cross-hatch picture there are available the Corners calibration trimmers.

▦	TOP LEFT HORIZONTAL CORNER
▤	TOP LEFT VERTICAL CORNER
▦	TOP RIGHT HORIZONTAL CORNER
▤	TOP RIGHT VERTICAL CORNER
▦	BOTTOM LEFT HORIZONTAL CORNER
▤	BOTTOM LEFT VERTICAL CORNER
▦	BOTTOM RIGHT HORIZONTAL CORNER
▤	BOTTOM RIGHT VERTICAL CORNER

Remove the jumper JP106

Cover the Red and Blue CRTs, the Green CRT on.

Adjust the following trimmers concerning the Green CRT Corners calibration:
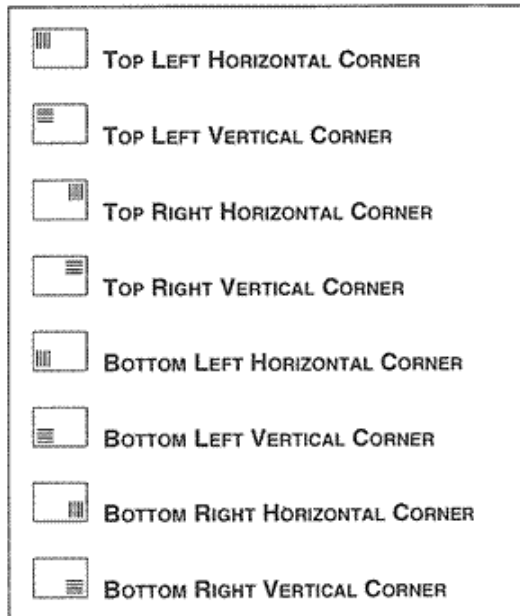
6.18 · RED ANS BLUE CRTs CORNERS CORRECTIONS

Discover the Red CRT.

Adjust the analogous trimmers concerning the Red CRT Corners calibration in order to obtain the better superimposition on the green cross-hatch image.

Cover the Red CRT and discover the Blue CRTs.

Adjust the analogous trimmers concerning the Blue CRT Corners calibration in order to obtain the better superimposition on the green cross-hatch image.
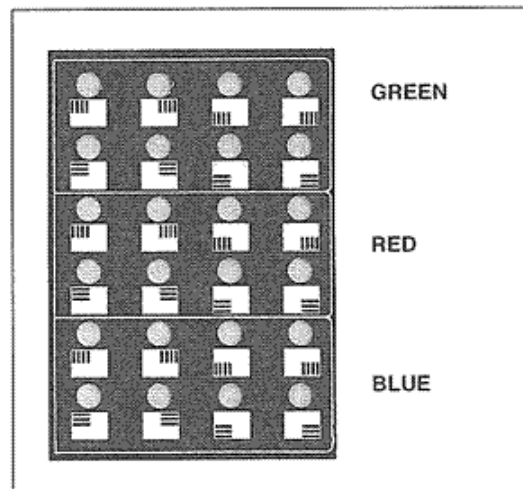
6.19 ·WIDE SCREEN FORMAT MODE CORRECTIONS

The WIDE screen format convergence correction functions are automatically enabled when the following flags are setted in the MEMORY MANAGER MENU:

SMALL 〔S〕   LETTER BOX 〔L〕   WIDE 〔W〕

They are not enabled when the following flags are setted:

NORMAL ⬚N⬚   CINEMA ⬚C⬚

When the SMALL flags is setted, the +12V Screen Command output in the Back Panel is also enabled.

To obtain the better superimposition of the cross-hatch picture also in Wide Screen format mode, there are available sixteen calibration trimmers for each Red and Blue CRTs, the corrections are automatically activated when is selected the Wide Scren format mode.

Insert the jumper JP 106

Select the Wide Screen format mode.

Execute the deflection set-up (see chapter 5).

Cover the Blue CRT; the Green and Red CRTs on.

Adjust the following trimmers concerning the Red CRT wide convergence corrections:

|	
• HORIZONTAL AMPLITUDE	• VERTICAL AMPLITUDE
• HORIZONTAL SKEW	• VERTICAL SKEW
• HORIZONTAL LINEARITY	• VERTICAL LINEARITY
• HORIZONTAL SHIFT	• VERTICAL SHIFT

Remove the jumper JP 106

Adjust the following trimmers concerning the Red CRT wide corners corrections:

• TOP LEFT HORIZONTAL CORNER	• TOP LEFT VERTICAL CORNER
• TOP RIGHT HORIZONTAL CORNER	• TOP RIGHT VERTICAL CORNER
• BOTTOM LEFT HORIZONTAL CORNER	• BOTTOM LEFT VERTICAL CORNER
• BOTTOM RIGHT HORIZONTAL CORNER	• BOTTOM RIGHT VERTICAL CORNER

Cover the Red CRT; the Blue CRT on.

Repeat all the procedure as in the previous paragraph adjusting the trimmers relative to the Blu CRT wide corners corrections in order to superimpose the blue to the green cross-hatch image.
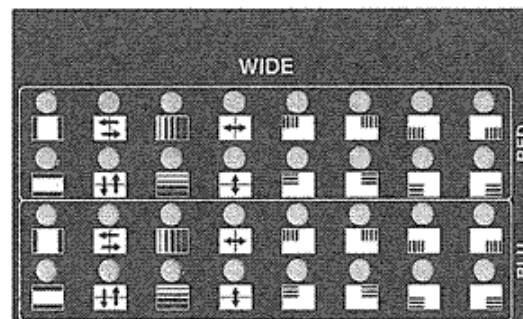
7 · SVP 310

7.1 · DIFFERENCE FROM SVP 350 TO SVP 310

FUNCTIONS	SVP 350	SVP 310
TUNING FUNCTION	Section 3.16	not avaible
AUDIO	Section 3.14	not avaible
TELETEXT	Section 3.15	not avaible
REMOTE CONTROL	Model Rc 3500	Model RC 3100
INPUT SELECTION	Section 3.7	see below

The **INPUT SELECTION (section 3.7)** is a little different because the numbers of video inputs are not the same.

INPUT SELECT

| 1 | SCART/VIDEO 1 |
2	SCART/S - VHS
3	SCART/RGB
4	S - VHS
5	BNC 15 KHZ
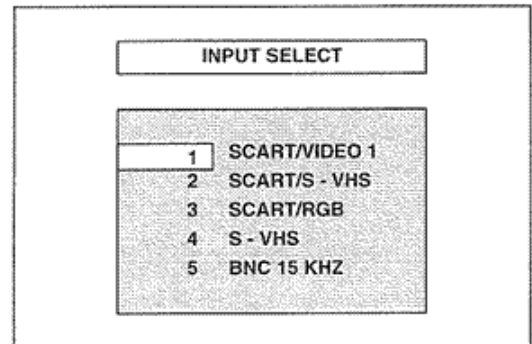
The menu will appear like this one.

Since the video inputs are differents and there are no audio signals, the back panel look like this one.

7.2 · USER REMOTE CONTROL RC 3100

The functions concerning the remote control RC 3100 are the same of the remote control RC 3500 used for SVP 350.

See section 3 of the SVP 350 manual for more information.
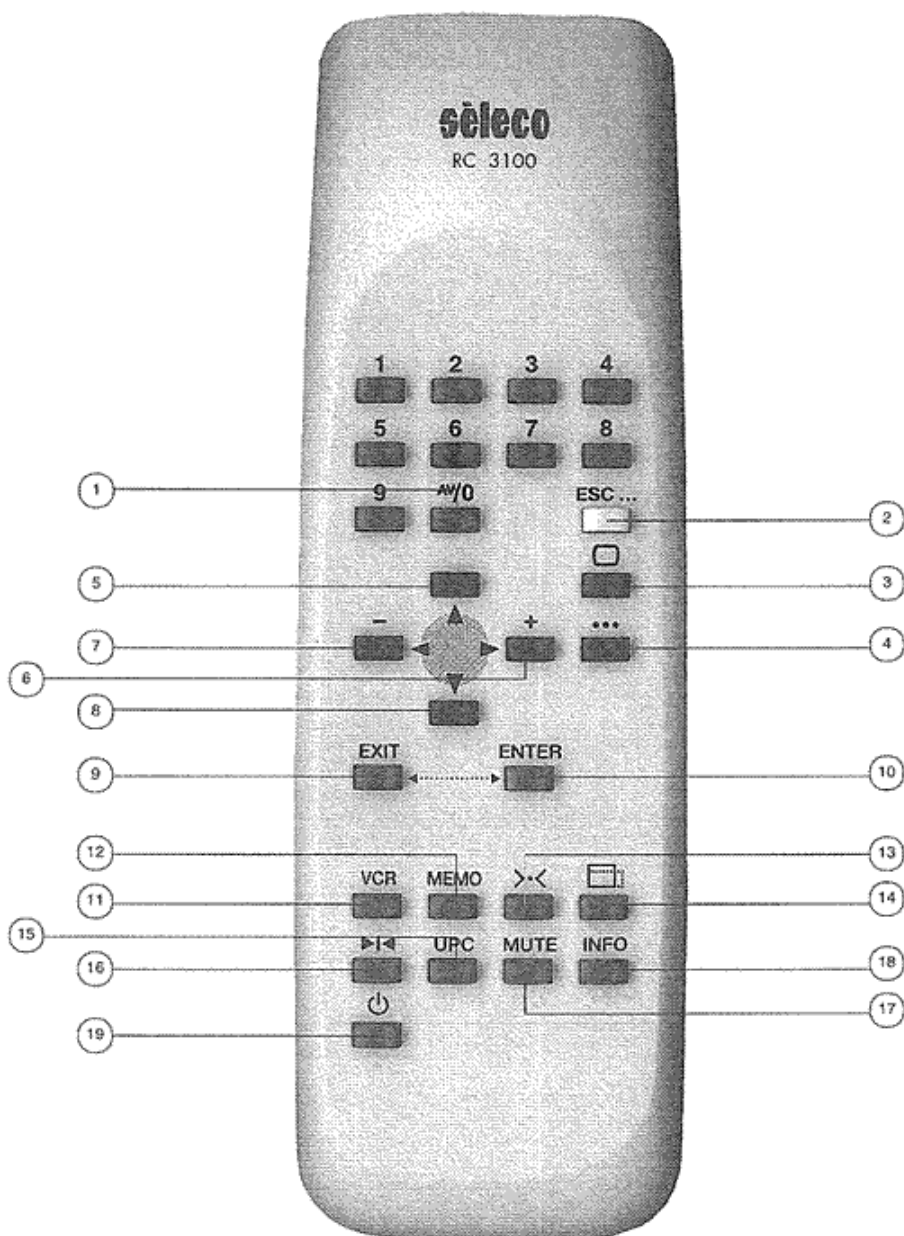
7.3 · BUTTONS

1. **AV/0** — Allows to display the video inputs menu.
2. **ESC...** — Allows to exit from any menu and to display an external picture.
3. ☐ **VIDEO MENU** — Allows to select the video menu or to change the peaking, hue, saturation, brighness and contrast values.
4. °°°**AUX MENU** — Allows to select languages. If pressed for a few second , allows to memorize the NORMALIZED values for the peaking, hue, saturation, brighness and contrast parameters, select the tuning menu and the install menu.
5. **P+** — Up Arrow.
6. **V-** — Left Arrow.
7. **V+** — Right Arrow.
8. **P-** — Down Arrow.
9. **EXIT** — Allows to return to previous menu or previous page.
10. **ENTER** — Executes the menu selections or to go to next page.
11. **VCR** — Allows to select the sync filter type between FAST or SLOW values.
12. **MEMO** — Allows to memorize the image adjustment.
13. **>·<** — Allows to restore the NORMALIZED values of the picture setup (peaking, hue, saturation, brighness and contrast).
14. ▭ — Allows to select the picture aspect ratio and screen format (Small, Normal, Wide, Cinema, Letter Box).
15. ▷◁ — NOT USED.
16. **UPC** — NOT USED.
17. **MUTE** — Allows to switch ON/OFF the image displaying.
18. **INFO** — Allows to display the projector status information.
19. ⏻ — Allows to to swicth ON/OFF the vidoprojector.

Note: *The user remote control mod. RC 3100 is powered by 21.5 V, AA type, batteries.*

7.4 · BATTERIES

Handling remote control and batteries:

• Avoid heat and humidity

• When not using the remote controls for a long period remove the batteries.

• Do not use new and old batteries together or used different types together.

• Do not drop or mishandle the remote controls.

Use the remote controls within the valid operating range (about 10 meters and 30° angle)

RC 3100 BACK VIEW

2 Piles 1.5 V Type AA
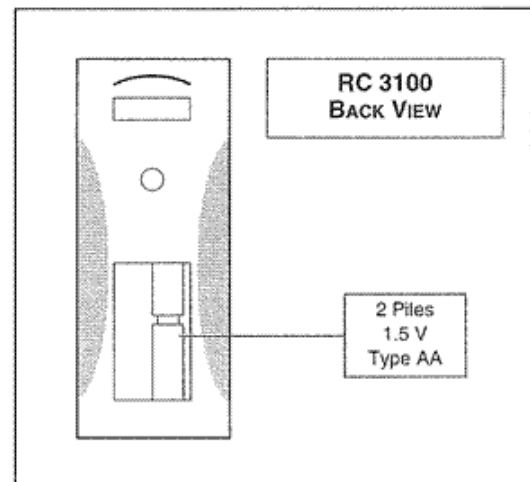
7.5 · NOTE 1

The SVP310 videoprojector is factory setted for a Ceiling-Front installation with a 100" screen and 12° inclination angle.

If the final installation of the videoprojector is realized in a similar configuration, it is not necessary to follow all the complete convergence installation procedure, it is enough to readjust the trimmers of the functions that appear not perfectly in convergence using the internal cross-hatch pattern. It is also not necessary to insert the jumpers to disable borders, corners and H/V single CRT driver convergence, corrections, during the convergence procedure. For installation conditions different from the factory standard set-up of the videoprojector,we suggest to follow the complete manual convergence adjusting procedure reported on the User & Installation Manual.

7.6 · NOTE 2

The WIDE screen format convergence correction functions are automatically enabled when the following flags are setted in the MEMORY MANAGER MENU:

SMALL	LETTER BOX	WIDE
S	L	W

They are not enabled when the following flags are setted:

NORMAL	CINEMA
N	C

When the SMALL flag is setted, the +12V Screen Command output in the Back Panel is also enabled.

8 · PROJECTOR SPECIFICATIONS

8.1 · OPTICAL DATA

8.1.1 · PROJECTION SYSTEM

- 3 picture tubes, 3 lenses
- horizontal in line system

8.1.2 · PICTURE TUBE

- 7" monochrome tube, high brightness, liquid cooling, air coupling, electrostatic focusing
- The external R and B tubes are mechanically rotated

8.1.3 · PROJECTION LENSES

- high formance hybrid lens
- focal length 135mm, f-number f/1.0 at infinity
- focus adjustments: center and borders
- magnification: 10X to 50X
- resolution: more than 5 lp/mm at 50% MTF

8.1.4 · PROJECTED PICTURE SIZE

- 60-250 inches diagonal
- factory adjusted to 100 inches

Convergence Type: Manual Convergence with Zone Adjustments.

8.1.5 · LIGHT OUTPUT

- large area high light brightness (100% white): 130 lumen ANSI (900 lumen at white peak).

8.1.6 · PROJECTOR VIDEO RESOLUTION

- RGB video input : more than 1000 TV lines.

8.1.7 · COLOUR TEMPERATURE

- 3200, 6500, 9300 Kelvin degrees, plus one user color temperature
- The color temperature is selectable and adjustable by remote control
- The projector is 6500K colour temperature factory preset.

8.1.8 · AUTOMATIC CUT-OFF

- The projector makes the Automatic Cut-Off always for the color temperature stability.

8.1.9 · ADJUSTMENTS

- All the adjustments of the projector, except the mechanical centering of the tubes, the optical focusing, and the convergence adjustement can be done via remote control.

8.1.10 · PICTURE ADJUSTMENTS

- Contrast
- Brightness
- Colour Saturation (only on PAL, SECAM, NTSC 4.43, NTSC 3.58)
- Hue (only on NTSC 4.43 and NTSC 3.58
- Sharpness

8.1.11 · GEOMERTIC ADJUSTMENTS

- Size
- Centering
- Linearity
- Skew
- Bow
- Keystone
- Pincushion
- Borders, Quarters

8.1.12 · INTERNAL TEST PATTERNS

- Crosshair
- Cross hatch

- Dots

- H characters

- White field

- White window (10% white window)

- Colour bars

8.1.13 · GLOBAL ADJUSTMENTS AND SELECTIONS

- Blanking windows

- H and V dynamic focus adjustments

- White balance adjustments

- Sync-phase Adjustment

- Installation type selectable

- Stand-By mode selectable

- Memory manager

- All parameters can be saved into 25 different labeled configurations, load, copy, move and delete functions

- On Screen Source Information, called by remote control or by back panel button

- On Screen Display Enable/Disable (only for contrast, brightness, saturation, peaking and hue)

8.2 · DISPLAY PERFORMANCES

8.2.1 · FLYBACK TIME

- Horizontal: 5,4 us typ

- Vertical: 500 us typ

R,G,B Video Bandwidth: 12 MHz, -3dB typical

Video Standard Bandwidth: 5.5 Mhz, -3dB typical

Contrast Range: more than 100:1

Warm up time (suggested): 20 minutes

8.2.2 · SYNCHRO

Horizontal frequency range: 15 Khz +/- 500Hz

Vertical frequency range: 45 to 70 Hz, autolocked

8.2.3 · FULL-FUNCTION REMOTE CONTROL MOD. RC 3000 (OPTIONAL)

Operating mode:

Wired (via the 8 m/24ft supplied cable)

Wireless (max operating distance: 10m/30ft)

Functions:

The following adjustments are directly reachable without passing through the menu:

• Power On-Off

• Picture mute

• Format selection

• RGB Cut Off

• VCR sync filter

• Normalized parameters

• Memorize picture setup

• Picture Adjustments

• Deflection Adjustments (Installation Mode)

• Info on the Projector Status

• Video input selections

• Reset picture regulations (Installation Mode)

Back illumination on pressing one dedicated key.

Without pressing any other key, the back illumination remains for about 20 seconds.

Pressing any other key, the illumination time counter restarts.

Batteries:

• N° 4 1,5 Volt batteries, mod. UM4 E R03

• N° 1 9Volt battery, mod 6F22A Transistor 9V

8.2.4 · USER REMOTE CONTROL MOD. RC 3500

Operating mode:

• Wireless (max. operating distance: 10m/30ft)

Functions:

The following adjustments are directly reachable without passing through the menu:

• Power On-Off

• Format selection

• Picture mute

• VCR sync filter

- Memorize picture setup
- Parameter centering
- Picture Adjustments
- Video menu
- Info on the Projector Status
- Video input selections
- Options

8.2.5 · KEYBOARD ON THE REAR PANEL

Functions:
- Switch ON
- Selection of the input signal
- Picture adjustment
- Info menu

8.2.6 · BNC RGB INPUTS

BNC connectors:
- Red input 0.7 Vpp, 75 Ohm termination
- Green input 0.7 Vpp, 75 Ohm termination
- Blue input 0.7 Vpp, 75 Ohm termination
- R, G, B Video Bandwidth: 12 MHz, -3dB

8.2.7 · INPUT SYNCHRO

- H, H/V Sync 75 Ohm termination
  a) Horizontal Sync: 0.3-5Vpp, positive or negative
  b) Vertical Sync 0.3-5Vpp, 75 Ohm termination positive or negative

8.2.8 · SCART CONNECTOR

- Red input 0.7 Vpp, 75 Ohm termination
- Green input/ 0.7 Vpp, 75 Ohm termination
- Green + Sync, 1Vpp , 75 Ohm termination, negative Sync
- Blue input 0.7 Vpp, 75 Ohm termination
- H, H/V Sync 75 Ohm termination
- Horizontal Sync: 0.3-5Vpp, positive or negative

• CVBS signal: 0.5-2Vpp, negative

• Vertical Sync: 0.3-5Vpp, 75 Ohm termination positive or negative

8.2.9 · VIDEO INPUTS

• **CVBS 1:** BNC connector o SCART connector - 1Vpp, 75 Ohm termination, sync neg. - active loop through - Chroma levels: 0.286 Vpp; NTSC 4.43; NTSC 3.58 (burst level); 0.3 Vpp; PAL; 0.3 Vpp, SECAM

• **CVBS 2:** BNC connector, same levels of CVBS1, 75 Ohm termination, sync negative, active loop through

• **S-VHS 1:** 4-pin MINI DIN connector, same levels of CVBS1, 75 Ohm termination, sync negative, active loop through

• **S-VHS 2:** SCART connector, same levels of CVBS1 75 Ohm termination, sync negative, active loop through

• Video Input Bandwidt: 5.5 MHz -3dB

• PAL, SECAM, NTSC 3.58, NTSC 4.43 standards, automatically switched.

In case of bad input signal, the video standard can be forced by remote control.

• C.T.I. always active

• Noise reduction ON-OFF selection

• Sharpness control (peaking)

• Comb Filter ON-OFF selection

• Luma-Choma Delay Adjustment

• NTSC: Hue control

8.3 · TV SYSTEM (ONLY SVP 350)

Standard: BGH, DK, I, L L'.

Channels: CCIR, CATV, FRANCE

Intermediate frequency: 38,9 Mhz

Receiving bands: 48,25Mhz - 168,25mhz / 175,25Mhz - 463,25mhz / 455,25mhz - 855,25mhz

Number of programmes: 200

8.4 · AUDIO

Standard: FM STEREO 2C - NICAM - AM mono.

• Music output power: 2 x 20 W (8 ohm)

• 5 Band graphic equalizer

8.5 · TELETEXT

Standard: FLOF, TOP.

Page numbers: more than 100.

8.6 · ELECTRICAL DATA

Power Consumption: 220 Wmax (6W on standby)

For model SVP350: line voltage range: 100-240Vac 48-62Hz with - power factor correction.

For model SVP350 UK: line voltage range: 180-265Vac 48-62Hz

Fuse: T 5 A

8.7 · MECHANICAL DATA

Cabinet Dimensions:

• Width: 620 mm/24.4 inches

• Height: 290 mm/11 inches

• Depth: 700 mm/27 inches

Weight: 35 Kg /77lbs net

Packaging: made by reinforced cardboard, inner filled with anti-shock stuff.4 handles for transportation

Packaging dimensions:

• Width: 840 mm/33 inches

• Height: 490 mm/19 inches

• Depth: 1030 mm/40 inches

8.8 · TEMPERATURE AND HUMIDITY RANGERS

Operation: 0 to +40 °C

Humidity: 0 to 90% non condensed

Immunity

Conform to EN 50082

8.9 · OPTIONAL ACCESSORIES

Fully color corrected HD lenses, 135mm focal length, f/1.03, optical resolution of more then 10 lp/mm, focus adjustments at center and borders.

8.10 · Supplied Accessories

- AC power cords (Europe) or (UK).

- Lenses Plastic caps

- Lens spacers

- User remote control RC-3500 with batteries

- Ceiling mounting kit

- Installation and user's manual

9 · TROUBLESHOOTING

The led light on the rear panel indicates the projector status.

	INDICATOR STATUS	Meaning
ON indicator	Light Red	Standby mode
	Light Green	During normal operation
Remote Control Indicator	Light intermittent	The projector is receiving the remote control command

When you find something wrong, before asking service help, check the following table.

PHENOMENA	CAUSE	CHECK POINT
• Power cannot be turned on	• The main power switch is not turned on • The power cord is disconnected	• Turn the main power switch on. • Insert the power cord into an AC socket in the back panel.
• No picture is displayed on the screen	• The projector is switch off • The setting of the input source is not correct.	• If the led is red means that the projector is in standby. Press a numerical button to switch ON the projector. • Ref. SELECTION INPUT
• The picture is not displayed very well	• The setup of the pictureis not perfect.	• Ref. PICTURE REGULATION
• The message "Temperature too high" appears on the picture	• Inside the projector too hot.	• Turn off the power and wait some minutes before switch ON again the projector. • Check that there are no blockages in the ventilation holes.
During normal operation, the projector switch OFF	• The projector is gone in protection mode.	• Ask for service

10 · WARRANTY (ONLY FOR ITALY)

CLAUSOLE DI GARANZIA

1. *L'apparecchio è garantito per un periodo di 12 mesi dalla data di acquisto o di installazione che viene comprovata da un documento di consegna, rilasciata dal rivenditore, o da altro documento provante che riporti il nominativo del rivenditore e la data in cui è stata effettuata la vendita.*

   La garanzia è valida solo in Italia.

2. *Per garanzia si intende la sostituzione o riparazione gratuita delle parti componenti l'apparecchio riconosciute difettose all'origine per vizi di fabbricazione.*

3. *Non sono coperte dalla garanzia tutte le parti che dovessero risultare difettose a causa di danni causati dal trasporto, di negligenza o trascuratezza nell'uso di errata installazione o manutenzione operata da personale non autorizzato, dall'uso dell'apparecchio in modo improprio o comunque diverso da quello per il quale l'apparecchio è stato costruito, ovvero, infine, di circostanze che, comunque, non possano farsi risalire a difetti di fabbricazione dell'apparecchio. Restano in ogni caso esclusi dalla garanzia i particolari asportabili e gli eventuali accessori, se non si dimostri che si tratta di vizio di fabbricazione.*

   Sono altresì esclusi dalle prestazioni in garanzia gli interventi tecnici inerenti l'installazione e/o il collaudo dell'apparecchio, oltre alle parti soggette a normale usura.

4. *La garanzia è riconosciuta purché l'installazione consenta la normale accessibilità dell'apparecchio. Per installazioni particolari (soffitto, pareti, ecc.) il recupero ed il posizionamento ad altezza d'uomo dell'apparecchio sono a carico dell'utente.*

5. *La casa costruttrice declina ogni responsabilità per eventuali danni che possano derivare, direttamente o indirettamente, a persone, animali domestici o cose in conseguenza della mancata osservanza di tutte le prescrizioni indicate nel libretto istruzioni, specialmente per le avvertenze in tema di installazione, uso e manutenzione dell'apparecchio. Resta inteso che la casa costruttrice non si ritiene responsabile per danni diretti e/o indiretti causati o conseguenti al mancato utilizzo dell'apparecchio.*

6. *Per gli apparecchi per i quali è richiesto e/o previsto l'intervento a domicilio, l'utente è tenuto a corrispondere il contributo fisso per le spese di trasferimento a domicilio in vigore alla data dell'intervento. Qualora l'apparecchio venisse riparato presso uno dei centri di assistenza tecnica autorizzati dalla casa costruttrice, le spese ed i rischi del trasporto relativi saranno a carico dell'utente.*

7. *Trascorsi 12 mesi dalla data di acquisto, l'apparecchio non è più coperto da garanzia e l'assistenza verrà prestata addebitando le parti sostituite, le spese di manodopera e di trasporto del personale e dei materiali, secondo le tariffe vigenti in possesso del personale dei centri di assistenza tecnica autorizzati dalla casa costruttrice. In caso di intervento da effettuarsi presso uno dei centri di assistenza tecnici autorizzati dalla casa, l'apparecchio dovrà esservi recapitato a spese ed a rischio dell'utente.*

8. *Questa è l'unica garanzia valida; nessuno è autorizzato, ad esclusione della casa costruttrice, ad estendere o modificare i termini della stessa o ancora a rilasciare altre scritte verbali. È in ogni caso esclusa la sostituzione dell'apparecchio nonché il prolungamento della garanzia a seguito di intervenuto guasto.*

ASSISTENZA TECNICA

L'apparecchio da lei acquistato è un prodotto di alta tecnologia e ottima qualità, costruito utilizzando le più moderne tecniche elettroniche. In caso di necessità gli interventi in garanzia (sul territorio italiano) ai proiettori prodotti da SIM2 Multimedia spa, sono a cura di:

VIDEOSEL INTERNATIONAL srl

Via Nazionale 33/4

33040 Pradamano (Udine)

Per conoscere il Centro di Assistenza più vicino alla sua città o per qualsiasi informazione tecnica la preghiamo di contattare Videosel International al seguente numero verde:

Numero Verde

(167134545

• Per tutti gli apparecchi l'intervento a domicilio è previsto previo accordo con i Centro di Assistenza Tecnica autorizzati.

• Si consiglia di rivolgersi ai Centri Autorizzati per eventuali riparazioni anche al di fuori del periodo di garanzia.

IMPORTANTE

**Per ottenere l'assistenza in garanzia è necessario esibire la bolla di accompagnamento
e lo scontrino fiscale unitamente a questa parte della garanzia.**

IDENTITÀ DELL'UTENTE E DEL PRODOTTO

Cognome e nome		Modello	
			SVP 310
Via	n.	Codice	**855291008** **9808241101**
Cap.	Città	Matricola	
Provincia	Data d'acquisto		