DVP1000

Digital Video Processor

Installation and
Operations Manual
NTSC Model

FAROUDJA
PICTURE PLUS™

QUICK START INSTRUCTIONS

The DVP1000 requires only a few adjustments to be set for proper operation. However, since the processor must be integrated with a display device, and the settings on one will affect the other, careful attention must be made to the settings on both products.

CONNECTIONS

Read the complete Owner's Manual for the DVP1000 before installation.

Also review the owner's manual of the display. Most display devices require specific settings to properly integrate with an external processor.

Be sure to connect all sources to the proper inputs of the DVP1000.

Note on DVDs: For proper aspect ratio and to insure the highest quality image from the DVD player, be sure to set the DVD screen shape to 16:9 in the DVD player's Setup menu. See the DVD player's owner's manual for details

Connect the proper cables from the output of the DVP1000 to the display device. Be sure the cables are not crossed.

DVP1000 SETUP

- Plug the processor into the wall power. The unit will go through initialization identifying the output resolution.
- Press the Menu button on the remote for five seconds to enter the Setup menu.
- Select Digital (DVI) or Analog (BNCs) output
- Select output type when using the analog output. RGBHV is recommended.
- Select the proper output scan rate.
- Composite Sync on H should be Off.
- Select the screen shape of your display.

DISPLAY POSITION AND ALIGNMENT

The next step in the setup procedure is to align the display device to the processor. Be sure to follow all directions for setting up the display found in the display's manual. Using a test DVD with the Safe Area test pattern, align the image size, position and blanking first using the controls found in the display device. Only use these controls in the DVP1000 if the display device does not offer these controls or if there is not enough range.

SETTING DISPLAY PROFILES

The DVP1000 stores up to eight profiles. Each profile stored contains all the settings for the unit at the time the information was stored. This allows the installer to store scan rates, screen shapes, etc. for multiple displays that may be using in the theater. Store the current settings by selecting the profile number (1-8) in the OSD and then hit Store on the remote. See the manual for more details.

IMAGE ALIGNMENT

The final step is optimizing the image. Use a test pattern DVD to optimize the display and processor.

Set the brightness and contrast using the controls in the display.

Adjust the gray scale of the display using the color temperature controls in the display.

Reduce the detail or sharpness control in the display to 0 or 1 (if available).

Using video material, adjust the Detail on the DVP1000. Use of the Detail circuit is affected by the quality of the material being viewed. High quality sources need a lower Detail setting. DVDs or satellite sources that are poor quality (compression artifacts) can be cleaned up by reducing the detail level. Low bandwidth sources such as VHS can be improved by increasing the detail. Customized settings can be stored as Profiles.

SAFETY PRECAUTIONS

IMPORTANT INFORMATION

WARNING : TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION :

To reduce the risk of electric shock, do not remove cover. Refer servicing to qualified service personnel.

This product is equipped with a 3-blade grounding-type plug to satisfy FCC rule. If you are unable to insert the plug into the outlet, contact your electrician.

FCC INFORMATION (U.S.A. ONLY)

CAUTION :

Changes or modifications not approved by Faroudja could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encourage to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

About burning-in of the display device

Do not allow the same still picture to be projected for a long time or an abnormally bright video picture to be projected. Do not project video images with high-intensity or high contrast on a screen. The video image could be burned in to the display device. Use special care when projecting video games or computer program images.

About the installation place

Do not install the processor in a place that cannot support its weight securely.

IMPORTANT SAFEGUARDS

IMPROPER USE OF THIS EQUIPMENT CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD.

In order not to defeat the safeguards incorporated into this product, observe the following basic rules for its installation, use and service.

– All the safety and operating instructions should be read before the product is operated.
– The safety and operating instructions should be followed and retained for future reference.
– All warnings on the product and in the operating instructions should be adhered to.
– Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
– Do not use attachments not recommended by the product manufacturer as they may be hazardous.
– Do not use this product near water. Do not use immediately after moving from a low temperature to high temperature, as this causes condensation, which may result in fire, electric shock, or other hazards.
– Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. The product should be mounted according to the manufacturer's instructions, and should use a mount recommended by the manufacturer.
– When the product is used on a cart, care should be taken to avoid quick stops, excessive force, and uneven surfaces which may cause the product and cart to overturn, damaging equipment or causing possible injury to the operator.
– Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation of the product and protect it from overheating. These openings must not be blocked or covered. (The openings should never be blocked by placing the product on bed, sofa, rug, or similar surface. It should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.)

SAFETY PRECAUTIONS

– This product should be operated only with the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
– This product is equipped with a three-wire plug. This plug will fit only into a grounded power outlet. If you are unable to insert the plug into the outlet, contact your electrician to install the proper outlet. Do not defeat the safety purpose of the grounded plug.
– Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at doors, plugs, receptacles, and the point where they exit from the product.
– For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power line surges.
– Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.
– Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
– Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltages and other hazards. Refer all service to qualified service personnel.
– Unplug this product from the wall outlet and refer service to qualified service personnel under the following conditions:
a) When the power supply cord or plug is damaged.
b) If liquid has been spilled, or objects have fallen on the product.
c) If the product has been exposed to rain or water.
d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the Operation Manual, as an improper adjustment of controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
e) If the product has been dropped or damaged in any way.
f) When the product exhibits a distinct change in

performance – this indicates a need for service.
– When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or with same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
– Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
– The product should be placed more than one foot away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.
– When connecting other products such as VCR's, and personal computers, you should turn off the power of this product for protection against electric shock.
– Use only the accessory cord designed for this product to prevent shock.

The power supply voltage rating of this product is AC 120 V, the power cord attached conforms to the following power supply voltage. Use only the power cord designated by our dealer to ensure Safety and EMC. When it is used by other power supply voltage, power cable must be changed.

Ensure that the power cable used for the projector is the correct type for the AC outlet in your country. Consult your product dealer.

*DO NOT allow any unqualified person to install the unit.

Be sure to ask your dealer to install the unit since special technical knowledge and skills are required for installation and connection to multiple devices.

If installation is performed by an unqualified person, it may cause personal injury or electrical shock.

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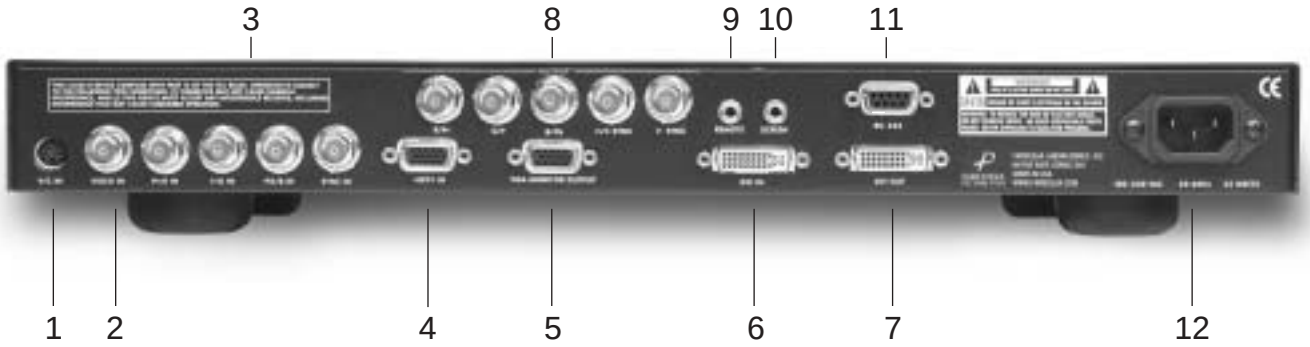
Made in USA

Rev. 6/03



INSTALLATION

Unpacking

Remove the DVP1000 unit from the shipping container and examine it for any signs of shipping damage or missing items (check inventory list below). All shipping materials should be saved if the unit is to be moved or returned for service. Shipping unit back to Faroudja for service not in the original box may result in voiding warranty.

Placement

The processor can be either placed on a table or rack mounted. A rack mounting installation kit is available. Securely mount the side rack brackets with the screws that are provided with the kit.

Ventilation

The unit uses convection to cool. A fan is not needed. As hot air raises out of the side vent, cool air is drawn in from the bottom. These vents must not be blocked. When rack mounted, a minimum of 1.75" (1 rack unit height) of free space is required above and below the unit to allow for proper cooling. A forced air fan should be added to the rack installation if power amps are located in the same air space. Do not install unit above power amps.

Connections

Because of the high performance of the DVP1000 unit it is very important to use the highest quality cables possible, for both input and output signals.

Inventory

1-DVP1000 Unit	1- Remote + Batteries
1-Owner's Manual	1- Warranty Card
1- Power Cord	

To avoid AC ground loop problems, the source equipment, DVP1000 unit and projector should all be running on the same grounded AC power line (one rated for the power requirements).

1. S-Video input (4-pin DIN) for sources such as DVDs, Satellite systems, S-VHS tape decks (when using S-VHS tapes only), Hi-8 tape decks.
2. Composite video input (BNC) for sources such as Laserdisc players, cable TV, VHS tape decks, 8mm tape decks.
3. YPrPb/RGBs Input (BNC): 480i and HDTV scan rates are sent to the internal processor and then output at the selected scan rate. If the output is set to analog RGBHV or digital DVI, the unit will automatically trancode the YPrPb HDTV to RGBHV.

Note on DVDs: For proper aspect ratio and to insure the highest quality image from the DVD player, be sure to set the DVD screen shape to 16:9 in the DVD player's Setup menu. See the DVD player's owner's manual for details.

4. High scan rate input (D15F) for sources such as HDTV signals or computers are passed through to the projector. The signal is sent to the outputs in the same format as the input unless Transcoding is selected. YPrPb from HDTV sources can be transcoded to RGBHV, as well. Use a BNC to D15 breakout cable if necessary. The Green, Red, Blue BNCs are used for YPrPb.
5. D15F connector output for use with computer monitors or to a second display device. Use only short cable runs. This output can be used at the same time as the BNC outputs.
6. DVI Input. The DVI Input will automaticly process 480P,720P and 1080i signals. Computer rates are not supported for processing but may be passed through to the DVI output if any of the pass-through inputs are selected. The DVP1000 will not convert a computer DVI output to the analog output.

7. DVI Output: Digital output interface for compatable displays. All processed analog and digital inputs are output to this connector as well as computer scan rates when the pass-throught input is selected. Maximum cable length is 50ft with a high quality DVI cable. For longer lengths a distribution system or fiber optic system must be used.

8. BNC connectors for main output with RGBHV or YPrPb signals to display devices. Cable runs up to 100ft are okay if good quality cables are used. For YPrPb outputs use:
   Red = Pr
   Green = Y
   Blue = Pb
   RGBHV is recommended.

Note: If Computer signals are to be used, separate H & V sync cables must be connected to the display.

9. IR receiver connection allows for use with external IR receivers so unit can be installed behind walls. (3.5mm, 3 pin, Tip = +5 - +12V Pulse, Sleave = Gnd)

10. 12V trigger to activate automatic screen relays. Voltage is constant when unit power is on. (12V @ 100mA Max. 3.5mm 2 pin connector, Tip = +12V, Sleave = Gnd)

11. RS232 D9F connection for use with RS232 control systems. This connection also allows for firmware upgrades to the DVP1000.

12. AC Power connection.

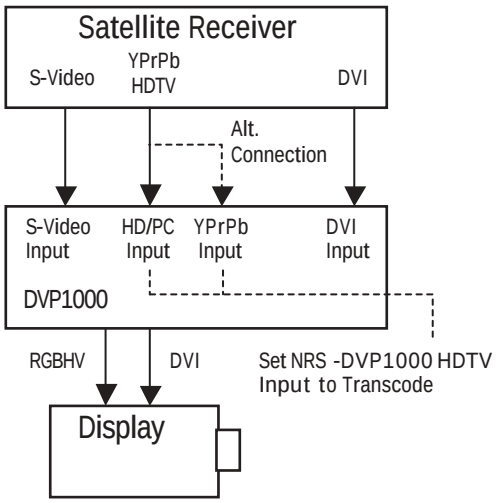
Note: The DVI or analog RGBHV outputs cannot be active at the same time. Select the output type in the Setup menu prior to use of the processor.

Connecting HDTV Satellite Receivers

Since HDTV ready satellite receivers offer different signal types, they require special attention for connection to the processor. Every receiver is different so be sure to consult the receivers manual for details. For this manual, we will assume the receiver being used operates as follows:

1. Non HDTV material is output from the receiver via an S-video connection
2. HDTV material is output via YPrPb outputs
3. If available, HDTV material is also output via a DVI connector.

The following diagram offers one way to connect the system.



With this hookup viewing the different sources is as follows:

SOURCE	USE THIS DVP1000 INPUT	USE THIS DVP1000 OUTPUT
Non-HDTV Channels	S-Video	RGBHV or DVI
Native HDTV Channels	DVI	DVI
Native HDTV Channels	YPrPb	RGBHV
Native HDTV Channels with HDCP Encription	YPrPb	RGBHV

Note: The DVP1000 pass-through input will “pass ” the input signal to the output stage in the same format as the input signal, i.e. analog HDTV in – analog HDTV out, DVI HDTV in – DVI HDTV out. The HDTV signal cannot be converted from analog to digital or digital to analog. Also, HDTV signals with HDCP encription will not pass through the DVP1000. Simply switch to the analog YPrPb output of the satellite receiver and switch the DVP1000 output to analog RGBHV to view the signal.

HDTV Cross-Conversion

The DVP1000 can cross-convert 480p,1080i and 720p HDTV signals to the selected output of the processor. Any HDTV signal connected to the YPrPb BNC or DVI inputs will be cross-converted. Any HDTV or PC signal connected to the D15 input will be passed-through without processing. PC signals via the DVI input will be sent to the pass-through.

FRONT PANEL CONTROL

1. Firmware Reset: push a small paper clip into this opening to reset the unit's CPU.

   Note: Use this reset only if the unit will not respond to commands. It will not erase custom settings. Use the Factory Restore command in the Setup Menu to completely reset firmware. See the setup section of the manual for details.

2. Power/Standby: Press to turn the unit On (LED turns Green) or to Standby (Red).

3. Infrared Receiver Window

4. LCD Readout: Provides information on control of the processor. Displays current Function being used, matching the On-Screen-Display. When in the Setup Menu, the OSD is not available, use the LCD display.

SYSTEM FIRMWARE SETUP

Now that all the sources and cables are connected, the processor's firmware needs to be setup for the installation. Be sure to go through the Setup menu before doing the final setup of the display.

When the unit is first plugged in it will go through an initializing procedure and display the output resolution. Do not send any commands to the unit during this initialization period. Once this initialization is completed the unit is instant-on.

Note: All display devices have specific setup steps that must be completed to insure proper operation with the DVP1000 and other sources. Be sure to carefully follow those instructions as well as the instructions for this processor.

To enter the Setup menu, press and hold the Menu button on the remote for five seconds. Setup Functions can only be viewed on the front panel LCD, not from the OSD.

Press the Function Up or Down to select the available Functions. Press the Value Up or Down keys to change values or to select options.

SETUP MENU FUNCTIONS

Set: SCANRATE
Select the required scanrate by using the right and left arrows. When the desired rate is displayed on the LCD display, press the STORE key. The DVP1000 will ask you "Are you sure" and press the STORE key again. The scanrate is now selected.

Set: Active Output
Analog/Digital (Default)
This must be selected to determine if the Analog (BNC) or Digital (DVI) output is used. Both outputs cannot be used at the same time.

Set: Screen Shape
Wide Screen / 4:3 / Wide 4:3
Note: This sets the processor for the screen shape of the display to be used. If this is not set properly, the aspect ratio selection for the different sources located in the user menu will be incorrect.

- Wide Screen-Choose this when the screen is Widescreen and the projector will provide the anamorphic vertical squeeze.

Example: A 16:9 plasma, a digital or CRT projector set to Anamorphic using a wide angle screen or when using a Panamorph lens, or a 1280x720 digital projector.

- 4:3 – Choose this when the projector is 4:3 and the screen is 4:3

Example: using a 1024x768 digital projector on a 4:3 screen.

- Wide 4:3-Choose this when the digital projector operates as 4:3 and the screen is Widescreen. (Not available on units scanning at rates below 720p)

Example: A digital projector that has a 4:3 display chip that locks the aspect ratio when sent the native resolution and then displayed on a wide angle screen.

Output Format (Analog)
RGB (Default) /YPrPb
Note: Selecting RGB means connecting the processor to the display via five wire analog RGBHV. This function is not active when DVI output is selected. DVI is always RGBHV.

Composite Sync on H
On/Off (Default)
Note: this function is not active when YPrPb output is selected

Horizontal Sync Polarity
Negative (Default) / Positive
Changes sync polarity, which may be needed for compatibility with some displays.

Vertical Sync Polarity
Negative (Default) / Positive
Changes sync polarity, which may be needed for compatibility with some displays

Note: Each input on the DVP1000 can be activated or deactivated to simplify operation so unused inputs are not accessed when cycling through the inputs with the remote control.

Set: Video Input
Enabled (Default) /Disabled
Note: Disabling this unused input will remove it from the input menu list.

Set: S-Video Input
Enabled (Default) /Disabled
Note: Disabling this unused input will remove it from the input menu list.

Set: RGB Input
Enabled (Default) /Disabled
Note: Disabling this unused input will remove it from the input menu list.

Set: YCrCb Input
Enabled (Default) /Disabled
Note: Disabling this unused input will remove it from the input menu list.

Set: DVI Input
Enable / Disable
Note: Disabling this unused input will remove it from the input menu list.

Set: Passthru Input
Enabled (Default) /Disabled
Note: Disabling this unused input will remove it from the input menu list.

Set: Passthru Transcode
Disable (Default) /Enable
YPrPb HDTV signals via the D15 input or the YPrPb (BNC) inputs can be transcoded to RGB when this feature is enabled.

Set: Component Input Standard
DVD (Default) /Professional (Betacam)
Note: Only use professional setting when using a device that conforms to SMTPE Betacam levels

Set: RGB Input Sync
Sync-on-Green (Default) /TTL/Video

OSD (On Screen Display)
On (Default) /Off

OSD Timer
0-255 (30 default)

LCD Timer
6-255 (40 Default)
Note: setting the timer to 5 or lower sets the LCD backlight to Always On.

Set: RS232 Echo
On (Default) /Off
Allows RSR232 characters to be sent back to the controller.

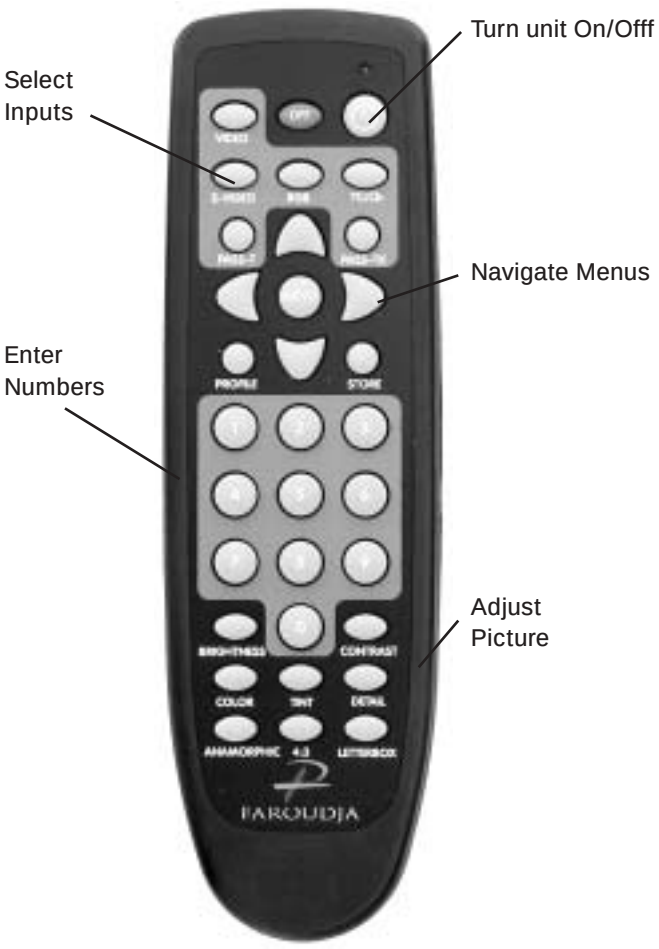
Set: Restore Factory
Are You Sure? - Press Enter Key

Use this Function only in the event that the processor no longer functions properly and all other system checks have been performed. This command will erase all custom settings and restore the original firmware configuration. Be sure to go back through the Setup procedure for proper operation.

The next step in the setup procedure is to align the display device. Be sure to follow all directions for setting up the display found in the display's manual. Using a test DVD with the Safe Area test pattern, align the image size, position and blanking first using the controls found in the display device. Only use these controls in the DVP1000 if the display device does not offer these controls or if there is not enough range.

IR REMOTE AND OSD OPERATION

The DVP1000 is shipped with a Infrared remote control that allows for direct access to most commands used to control the processor. Adjustments can be made by either pressing the appropriate button on the remote or by toggling through the On-Screen-Display (OSD).



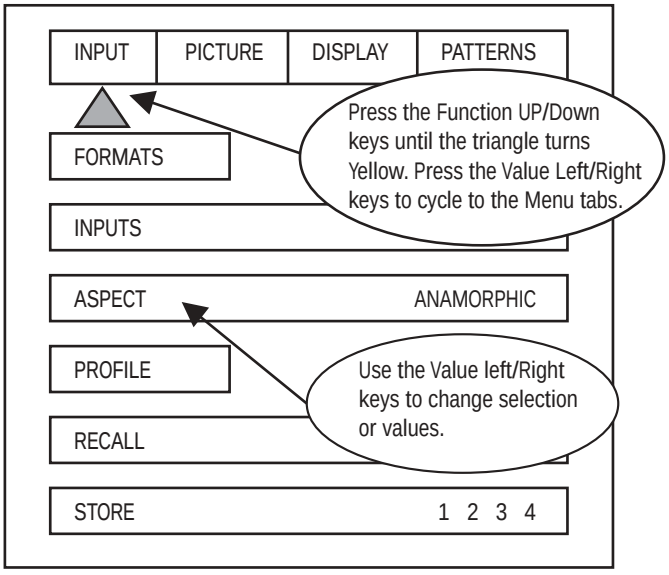
Adjusting levels can done by pressing the command button then pressing the Value Up/Down keys or by entering a three digit number (enter 040 to select a level of 40, for example).Press RGB then 1 for direct access to the DVI input.

ON SCREEN DISPLAY (OSD)

Accessing the OSD

- Press Menu button to bring up main Index.
- Use Function Up/Down Keys until the triangle at the top of the OSD turns yellow.
- Use the Left/Right keys to move to the next menu page. A list of available Functions will appear.
- Press Function Up/Down keys to select an adjustment.
- Use Value Left/Right keys to adjust. The main menu drops away and a single line menu appears.
- Use the Function keys to return to the drop down menu.
- Press Menu at any time to cancel OSD

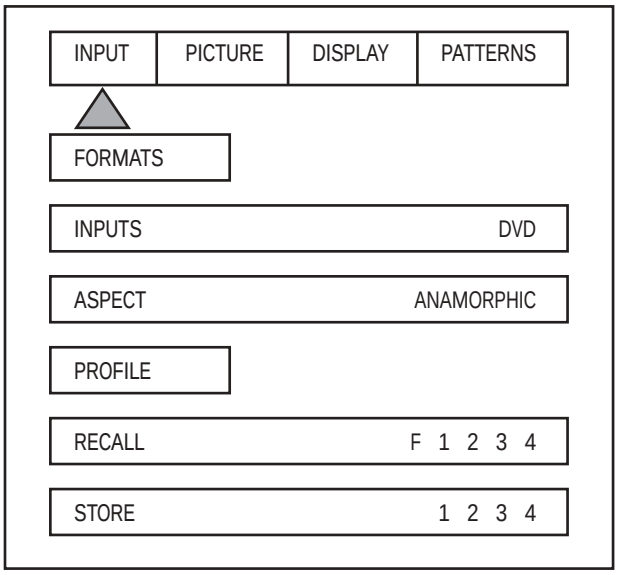
Note: Unused inputs can be deactivated for simpler operation of the processor. See the Setup instructions for details.



The OSD consists of four menu tabs:

Input – Picture – Display – Patterns

Input Menu



Formats

Input Select: OSD
Video-S-Video- RGB-YCrCb-DVI

Note: Note: The Pass-Thru input cannot be selected from the OSD since an OSD is not available on that input. Use the Input button on the remote to select it. The DVI Input will not display an OSD unless there is a source connected to it.

Aspect Ratio*

4:3-Letterbox-Anamorphic

Note: This selection should match the aspect ratio of the source, not the display. The aspect ratio of the display should be selected in the Setup menu.

Profiles-

Profile: Factory-1-2-3-4-5-6-7-8
Store: 1-2-3-4-5-6-7-8

To store a Profile (in the Input Menu):

- Press Menu button on the remote
- Make all required adjustments.
- Use the Function Up/down keys to select Profile
- Use the Value Left/Right keys to select Profile
- Press Enter

To recall a Profile (in the Input menu):

- Press Menu button on the remote
- Use the Function Up/Down keys to select Recall
- Use the Value Left/Right keys to select profile 1-8
- Press Store

Note: When using a 4:3 source on a Wide Angle screen there are black bars on the left and right of the image. The sidebars can be changed to gray using the Blanking Level control located in the Display menu. If filling the entire screen is desired, select Letterbox. The image will fill the screen but the top and bottom 1/3 of the image will be cut off (overscanned).

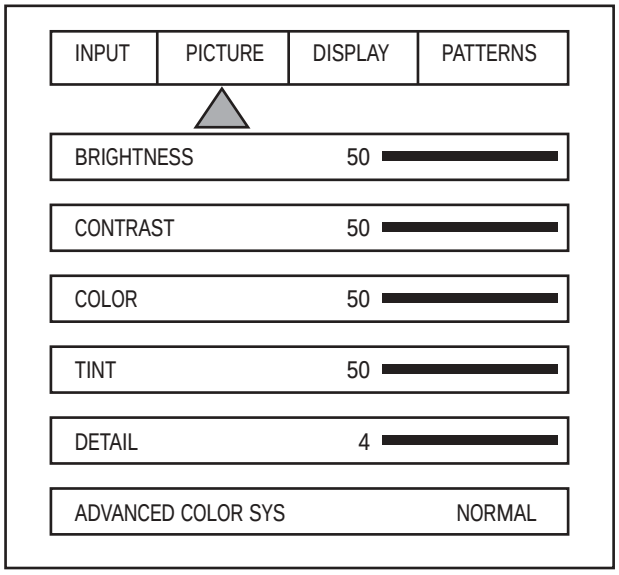
When watching 2:35 aspect ratio movies on a 16:9 (1:77) screen, it is normal to see black bars at the top and bottom of the image.

Note: The screen shape used in the installation must be set in the Setup Menu during installation for proper Aspect Ratio mapping. Anamorphic Aspect Ratio with 4:3 screens and the Wide-4:3 settings are not available on units with scan rates 480p, 540p, 600p and Frame Doubling. See Setup section for details.

Note: Do not leave the 4:3 image with a Wide Angle screen on for long periods of time on a CRT projector or plasma display. This can cause permanent image burn-in. Image burn-in is not covered by Faroudja's warranty

Picture Menu

Use these commands to fine-tune the image.



Brightness

Factory 50

Contrast

Factory 50

Note: It is best to set Brightness and Contrast levels using the controls of the display with the proper test pattern and with the DVP1000 in the Factory default setting for the initial setup. This means with day-to-day use, when the Factory preset button is pressed, the system is back to the original optimum settings, while changes made for specific sources can be saved in the custom Presets.

Color

Factory 50

This adjusts the amount of color. The Faroudja processor is calibrated to meet broadcast (SMPTE) color specifications so only minor color adjustments should be needed.

Tint

Factory 50

Tint is not available with YPrPb sources

Detail

Factory 4

Note: The Detail circuit is a powerful tool for image quality. The settings have been optimized for the output scan rate and resolution. However, the viewer's tastes plus the types of software and display require making adjustments of this setting to fine-tune the image. This control is very effective to increase detail in poor quality video material. It is recommended that adjustments be made in small increments until the desired results are achieved and then store these custom settings in the Presets. It is important to not use too much Detail as the image will start to look artificial.
Typically, digital displays will need less detail than analog displays. High quality software will need less detail than poor quality ones. Reducing the Detail level can help to reduce the visibility of MPEG artifacts on some DVDs and satellite systems and noise with VHS tapes. The best results are achieved by adjusting the levels to the software being viewed instead of just using test patterns.

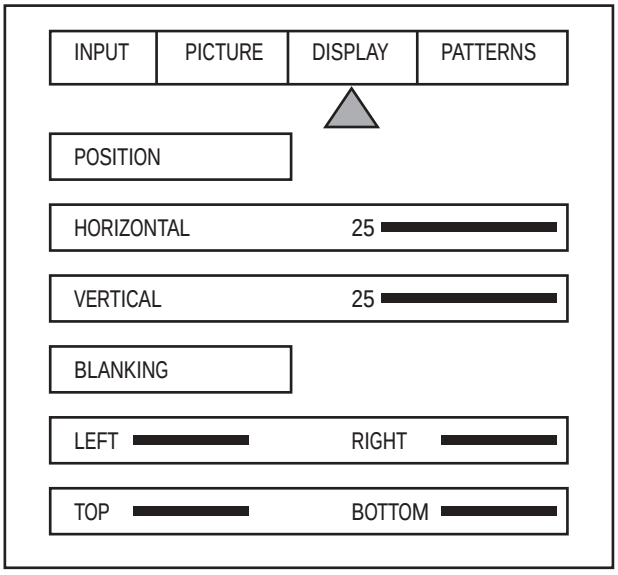
Advanced Color System

Normal (default) /Bypass

For some DVDs with computer animation or with very high levels of color, the Faroudja patented chroma edge processing circuits may not be needed and can be turned off (Bypass). For most sources, the Normal setting should be selected. These settings can be stored as a User Preset.

Note: Any changes to the picture level adjustments are automatically stored after one minute has passed without making any changes. This information is stored separately for each input. As each input is selected the last use settings will automatically be recalled. If picture levels are adjusted but then the input is changed before one minute has passed, the changes for that input will not be stored and the previous settings will be recalled the next time that input is used.

Display Menu



Use these commands to adjust the image position and edge blanking. It is recommended to adjust sizing, position and blanking in the display device first with the DVP1000 in the Factory preset setting. Then use the DVP1000 controls only if the display runs out of range or does not offer these controls. This should be done by a qualified technician.

Horizontal Position

25 default

Moves image left or right of center.

Vertical Position

25 default

Moves image up or down from center.

Note: Moving the image too far to the left or right can cause the display to stop working. Move image to center to correct. Use the positioning controls in the display first– if available. H&V adjustments are not availabel when using the DVI output. Also, many display devices require a specific setting when using high scan rate sources such as the DVP1000 or HDTV. Be sure to completely read the installation manual for the display device before making adjustments.

Bottom Blanking
This adjusts the bottom edge blanking

Right Blanking
Adjusts the right edge blanking

Left Blanking
Adjusts the left edge blanking

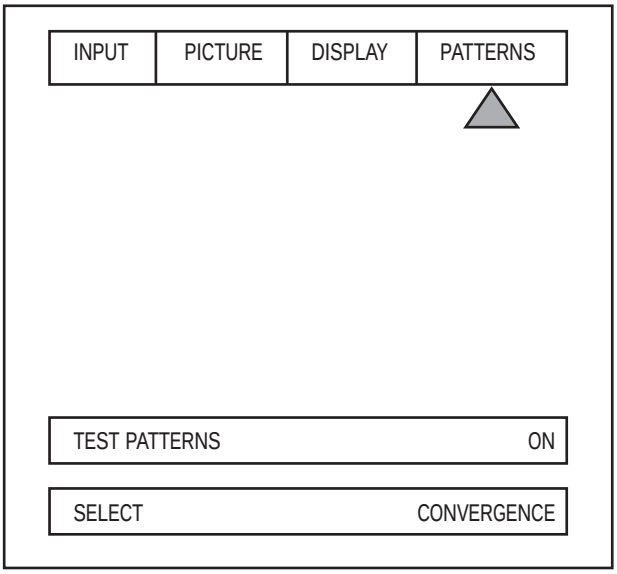
Top Blanking
Adjusts the top edge blanking

Blanking Level
This adjusts the blanking from black to white. This can be used to create a gray side bar for use with 4:3 aspect ratio sources on wideangle screens to help reduce the chance of image burn-in. Image burn in is not covered by Faroudja's warrantee.
Note: The DVP1000 will store unique blanking and H&V position settings for each aspect ratio which are automatically stored and recalled when the different aspect ratios are selected

Patterns Menu

The best approach to system setup is to use a DVD that offers the proper test patterns. This way, the system is aligned for the entire signal path. If a test DVD is not available, then use the internal test patterns provided in the DVP1000.

Note: The test pattern generator in the DVP1000 is set to SMPTE standards. To insure proper output levels for display setup, the picture controls in the DVP1000 cannot be accessed when the test patterns are being used. Adjust levels, if needed, in the display device.



AVAILABLE PATTERNS:

10-step Gray Scale: Check gray scale

Cb Ramp: Check linearity of Cb channel

Cr Ramp: Check linearity of Cr channel

Black: Full Black screen

Green Screen : Check for defective pixels

Red Screen: Check for defective pixels

Blue Screen: Check for defective pixels

Convergence: Check convergence of display

Active Borders: Use for H&V positioning

SMPTE Color Bars: Set color/brightness/contrast

100IRE Window: Check displays power supply

PLUGE: Set Brightness and Contrast

100IRE CB: Color bars for decoder check

100IRE Rev. CB: Color bars for decoder check

RS232 INSTRUCTIONS

Connector: DB-9 Female

Baud rate: 19,200 default, 8 bit,
1 stop bit and No Parity

Pin Configuration:

Pin 5 = Ground
Pin 3 = Rx
Pin 2 = Tx

All commands are sent using ASCII text strings.

Note: A command must start with the string header DVP

RS232 CODES

Following the header, a comma is used to delimit the header from the command. All the commands with their descriptions are listed below. All the text strings are terminated with a carriage return (0x0d or 13). Maximum command string length is 250 characters. The header and command are not case sensitive.

	OPERATION COMMANDS	(Used for day-to-day operation)
COMMAND	**OPTIONS OR RANGE**	**DESCRIPTION**
A#	(0-2) 0=4x3,1=Letterbox, 2=Anamorphic	Input Aspect Ratio – for all sources
B#	(0-170) 128 default	Brightness
C#	(0-155) 110 default	Contrast
D#	(0-13) 8 default	Detail
DVI		DVI Input
EXT		Pass-through Input
FST		Report Current System Status
HELP		Displays full list of commands for this unit
K#	(0-220) 128 default	Color
L#	(1-8)	Store User Preset
OFF		Power OFF
ON		Power ON
P#	(0-8) [1-8=User, 0=Factory]	Recall Preset
PATT		Display Test Pattern Help
PM#	(0-1) [0=Normal1=Bypass]	Advanced Color System
PY		PassThru Transcoded Input
R		RGB input
ST		Report Current Status
T#	(0-255) 128 default	Tint
TP#	0=Off 1=100% Color Bars 2=Reverse Color Bars 3=10-step Grayscale 4=Luma Ramp 5=Cb Ramp 6=Cr Ramp 7=Green 8=Red 9=Blue 10=Convergence 11=Active Boarder 12=SMPTE Color Bars 13=100% Window 14=PLUGE Test Pattern Selection	
V		Video input
X		YCrCb input
Y		S-Video input
	SETUP COMMANDS	**(Normally not controlled by RS232)**
COMMAND	**OPTIONS OR RANGE**	**DESCRIPTION**
BB#	(0-192)	Bottom Blanking
BL#	(0-252)	Border Level – black to white
BLT#	(0-255)	LCD Backlite Timer on front panel
CS#	1=On 0=OFF	Composite Sync – for RGB output
DVD		DVI Input Disabled
DVE		DVI Input Enabler
E#	1=On 0=OFF	RS-232 ECHO

EXTD		PassThru Input Disabled
EXTE		PassThru Input Enabled
G#	(0-2) [0=OFF 1=Bi-Level 2=Tri-Level]	SYNC on G/Y
HP#	(0-50) 25 default	Horizontal Position
HPOL	0=Neg 1=Pos	Horizontal Sync Polarity
LB#	(0-200)	Left Blanking
M#	(0-2) [0=RGB, 1=YCrCb, 2=YPrPb]	Output Mode
OSDOFF		OSD Off – for processor
OSDON		OSD On -for processor
OUTMOD	0=Analog, 1=Digital	Output Mode
PYD		PassThru Transcode Disable
PYE		Pass-Thru Transcoder Enabled
RB#	000-192	Right Blanking
RD		RGB Input Disabled
RE		RGB Input Enabled
SETFT		Restore Factory Defaults
SRHELP		Scan Rate Help Table
SR#		Select Output Scan Rate
TB#	000-192	Top Blanking
VD		Video Input Disabled
VE		Video Input Enabled
VP#	(0-50) 25 default	Vertical Position
VPOL#	(0=Neg 1=Pos)	Vsync Polarity
W#	0=4:3, 1=Widescreen, 2=Wide 4:3	Screen Shape
XD		YCrCb Input Disabled
XE		YCrCb Input Enabled
YD		S-Video Input Disabled
YE		S-Video Input Enabled
	SCAN RATE LIST	**USE ONLY BY QUALIFIED TECHNICIAN!**
	SR2 1920 x 540	SR3 800 x 600
	SR4 1280 x 720	SR5 1024 x 768
	SR6 1280 x 768	SR7 1366 x 768
	SR8 1440 x 960	SR9 1280 X 1024
	SR10 DILA	SR11 1400 x 1050
	SR12 1920 x 1080	

Note: Enter DVP, FST in a terminal driver program to get the default numbers or contact Faroudja.

HELP MENUS

TEST PATTERN HELP MENU			
TEST PATTERN HELP MENU			
TP0	TEST PATTERN OFF	TP1	100% COLOR BARS
TP2	REVERSE COLOR BARS	TP3	10 STEP GREY
TP4	LUMA RAMP	TP5	CB RAMP
TP6	CR RAMP	TP7	BLACK SCREEN
TP8	GREEN SCREEN	TP9	RED SCREEN
TP10	BLUE SCREEN	TP11	CONVERGENCE
TP12	ACTIVE BORDER	TP13	SMPTE PATTERN
TP14	WHITE WINDOW	TP15	PLUGE

SCAN RATE HELP MENU			
SCAN RATE SELECTION HELP MENU			
SR1	720 x 483	SR2	1920 x 540
SR3	800 x 600	SR4	1280 x 720
SR5	1024 x 768	SR6	1280 x 768
SR7	1366 x 768	SR8	1440 x 960
SR9	1280 X 1024	SR10	DILA
SR11	1400 x 1050	SR12	1920 x 1080

Inputs (Interlaced)	
Format NTSC Only	
Composite(BNC)	1vpp
S-Video (4-pin DIN)	1vpp C -286mvpp
Component (BNC) Auto-detect: 480i/480p sent to upconverter, 1080i or 720p sent to upconverter.	Y -1vpp(SMPTE) Cr -700mvpp Cb -700mvpp
RGB (BNC) Interlaced	Comp. Sync -1vpp RGB -700mvpp
HD/PC Pass-Thru	D15F
DVI Input (for pass-through only to DVI out)	DVI-I (female) Digital Only
Remote Control "D9F"	RS-232 ASCII
Remote IR sensor input	5V-12V, 3.5mm, Tip=+
Outputs (Progressive)	
R,G,B (BNC or DB15)	700mvpp, TTL Sync
YPrPb	700mvpp, Sync on Y -1vpp
RGsB RGB -700mvpp	Gs -1vpp
D15F	Pin Function
1	Red Out
2	Green Out
3	Blue Out
7	Red Gnd
8	Green Gnd
9	Blue Gnd
10	Sync Gnd
11	Sync Gnd
13	H Sync Out
14	V Sync Out
Digital Video Interface	DVI-I (Female) digital only
Horizontal Sync:	NTSC: 31.5KHz - 63KHz -depending on model
Screen	Trigger 12V, 3.5mm, 2 pin, Tip=+
Vertical Sync:	60Hz/50Hz, 4.0 vpp TTL
Composite Sync :	4.0 vpp TTL
Dimensions (Depth includes rear BNC)	1.75" H x 17" W x 11.75" D
Weight	14 lbs,
Power Consumption	50wts/115VAC/60Hz,
Max. operating ambient temperature	35C
Power Supply	100-240VAC 50/60Hz Auto Ranging

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Warranty may be void if unit is returned to Faroudja Service not shipped in the original shipping carton.

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