



Sony EBS-SP35

User Guide



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Introduction

The EBS-SP35 is a professional tri-band tuner providing 8VSB, QAM and NTSC tuner function for connection to a line of Sony Professional LCD and Plasma displays. The EBS-SP35 includes support for Pro:Idiom™ decoding on lodging systems supporting this encryption technology.

This document outlines the set up and operation of the EBS-SP35. For questions or to check for updated information on this product, please check www.sony.com/support for more information.

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EBS-SP35 Set-Top-Box
(Enseo HD1000)



12V DC Power Supply



Communication Cable



HDMI Cable



Audio Adapter Cable



HDMI to DVI Adapter



Note:

For connecting the EBS-SP35 with the following Sony displays, the HDMI to DVI Adapter and Audio Adapter Cable are required:

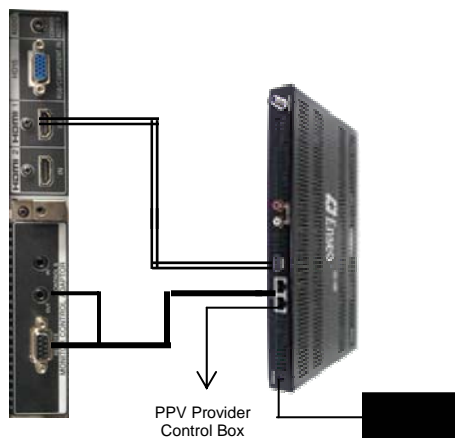
FWD-32LX1/R
FWD-40LX1
FWD-50PX2
FWD-42PX2
FWD-42PV1

For other models (LX2 and KLH) the HDMI Cable will supply both video and audio.

Setting Up the EBS-SP35 / Making Connections

The EBS-SP35 is designed to function with Sony Professional LCD and Plasma displays which may differ in input types and connection configuration. For questions on connections and specifications on specific Sony displays, consult www.sony.com/support.

FWD-32LX2 / FWD-40LX2 Connections (HDMI Models)

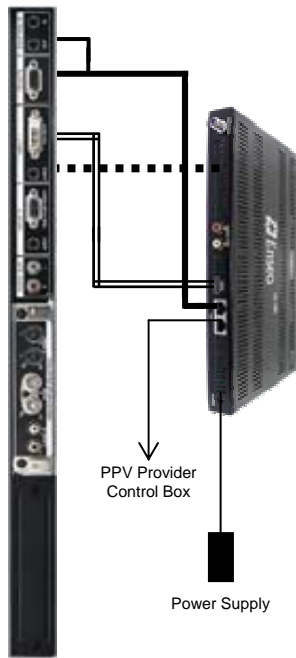


1. Connect HDMI cable to EBS-SP35
2. Connect HDMI to Display Input 1
3. Connect the Communication cable to SP35
4. Connect 9-pin serial connector to Remote* input on display
5. Plug mini-jack cable to Control-S Out*
6. Connect Coax cable to ANTENNA input on box
7. Connect PPV provider RJ12 to PPV input on Box
8. Plug in 12V DC power adapter

* RS232 and Control-S on option board (BKM-FW20) which is standard on the LX2 models



Sony Displays with DVI-HDCP Digital Connections



1. Connect HDMI cable to EBS-SP35
2. Connect HDMI to DVI adapter to Display Input 1
3. Connect HDMI cable to HDMI to DVI adapter
4. Connect L/R audio to SP35
5. Connect mini-jack audio to the Input 1 audio
6. Connect the Communication cable to the input marked Display on the SP35
7. Connect the 9-pin serial connector on the Communication cable to the input labeled Remote on display.
8. Plug mini-jack cable to Control-S Out
9. Connect Coax cable to RF IN on SP35
10. Connect PPV provider RJ12 to PPV input on SP35
11. Plug in 12V DC power adapter

Note: Sony FWD-42PX2 and FWD-42PV1 have connections located on the bottom of the display and in different configuration than shown above.

Initial Power On

When the power is applied to the EBS-SP35 with the external AC adapter, the device will power on. The power status of the EBS-SP35 can be confirmed by viewing a lighted Green LED through the top cover of the set-top-box.. If this light is not seen, check the connections of the power supply.

Menus / Configuration

Stand Alone vs. Lodging Mode

The EBS-SP35 is designed to operate in a Pay-Per-View environment, connected to a lodging system that uses protocols and commands to control the display and tuner. The EBS-SP35 may also be able to operate in a Stand Alone mode to provide basic TV tuning for the Sony Display.

When the EBS-SP35 is connected to a compatible lodging system, the SP35 will automatically recognize the lodging system and respond to the PPV commander. In Lodging Mode, the control buttons and IR commands from the Sony remote will not control the

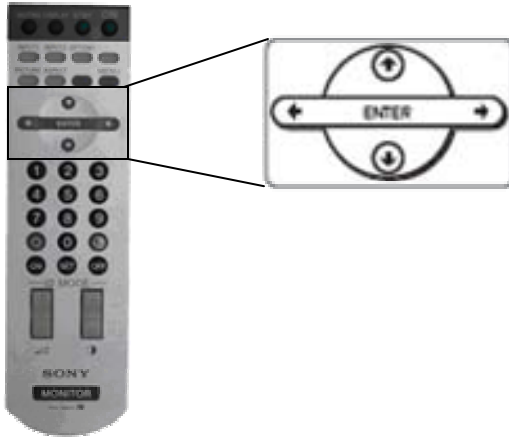
Supported Remote Controls

The EBS-SP35 is designed to function with the remote control that shipped with the Sony display. Because of differences in the display remotes, in which not all remotes have the same available buttons, some remotes may have limited functionality with the display remote. In such case, as standard Sony TV remote or universal remote using Sony IR commands can control the EBS-SP35 in Stand-Alone Mode.



Navigating Menus

The menus in the operation of the EBS-SP35 have been designed to use the Left, Right, Up, Down buttons for most functions. To return to a previous menu, pressing the Left button



Set Up Menu

The EBS-SP35 set up process includes a sequence of numbers pressed on the Sony remote to access the set up menus. With the display and SP35 powered on press the following in sequence (note: when pressing buttons, press the buttons to be sure the system receives the code).

Setup Menu code: Up Right Left Mute

If a button is pressed in error, press the Down arrow to clear the code entries. In the lodging environment a different remote or function may be enabled to provide additional security.



Setup Menu

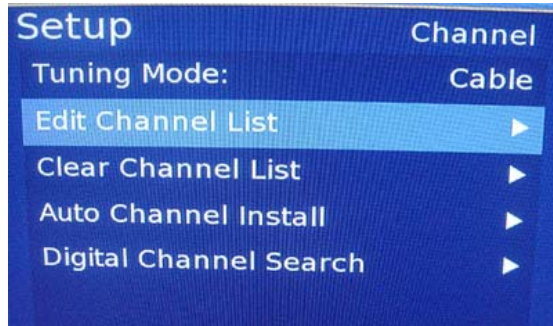
Channel Options

The EBS-SP35 supports analog and digital channels from cable or over-the-air sources.

Note:

Air – To receive over-the-air channels, an antenna and additional equipment may be required

Cable – Digital cable channels may not be accessible if conditional access or subscriptions are required



Tuning Mode

Using arrow keys, select either Air or Cable

Edit Channel List

A submenu with functions to add, delete and manage channels

Clear Channel List

Used to delete the channel list programming

Auto Channel Install

Used to scan and install channels

Digital Channel Search

Used to search for digital channels available. Note, these channels will not be automatically entered into the channel lineup. Digital channels require entry management on the Edit Channel List menu.

Edit Channel List

This submenu allows for manual add, delete and management functions of channels.



Channel

Using remote, enter the numbers of the channel to manage

Include in List

Yes to include / No to exclude

Type



Selection options include:

Digital – Digital Channels

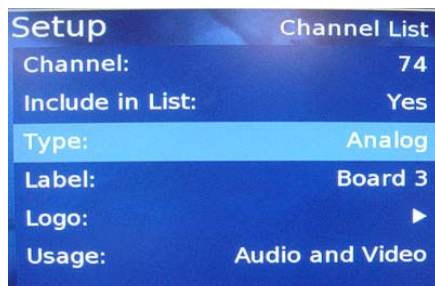
Analog – Analog Channel

A/V Input – Channel mapped AV inputs

Note:

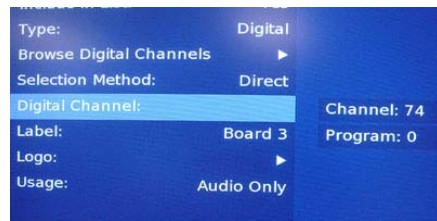
Depending on the selection type, the menu options will change for the Channel List menu

Analog Type Selection



The options for an analog channel include a customized Label for the channel, Addition of a thumbnail logo for the channel and selection of audio/video options for the channel.

Digital Type Selection



The options for a digital channel include:

Browse Digital Channels

Access to see available digital channels. The Digital Channel Search from the Main Menu is required before this function will provide results

Digital Channel

This section provides for the entry of the Channel Primary digits and Sub (Program) digits for the known digital channel

Label

Editable text for the channel

Logo

Selectable menu of logos for adding a visual thumbnail for many popular TV channels

Usage

Selection of Audio and Video (default), Audio only for music channels/inputs or video only for video only usage.

A/V Input Type Selection

Switch-On Options

This menu provides options for setting up default settings for when the display first turns on. These settings are particularly useful in a lodging environment to be sure the display starts on the barker channel and at a pre-defined volume setting.



Channel

Enter the channel that you would like the EBS-SP35 to tune to when it turns on. Use Restore to cancel the change

Volume

Set the numeric value from 0 to 99 that you would like to be used as the default volume level for the display.

Picture Format

Select between different formats for the screen and content presented. Options include:

Native

This setting will show the aspect ratio of the source material. 4:3 NSTC images will be shown with side bars

Widescreen

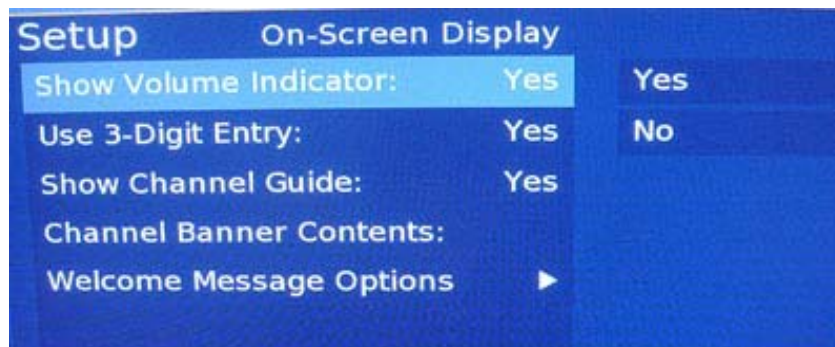
This setting will fill the screen with the image by stretching the image (if necessary) to create a 16:9 image.

Power

This setting is for specialized applications and not generally used.

On-Screen Display Options

The On-Screen Display Options settings provide for customization and set up of OSD options.



Show Volume Indicator

This menu item is a Yes/No selection for whether a visual representation on the volume adjustment should be shown on the screen when the user uses the volume up or down on the remote.

Use 3-Digit Entry

This menu item is a Yes/No selection for support of 3-digit numbers for channels over 99 and digital channels that may use a sub-digit

Show Channel Guide

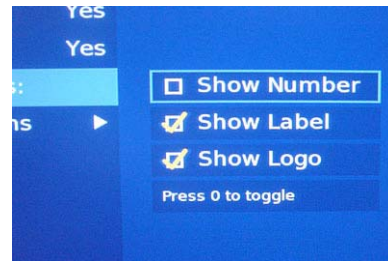
This menu item is a Yes/No selection for whether a channel guide is active for the user to see the available channels on the SP35.

Channel Banner Contents

This menu item allows the selection of the content available on the display banner. Selections include:

- Show number: The channel number
- Show Label: The text label for a channel
- Show Logo: The select graphic if any

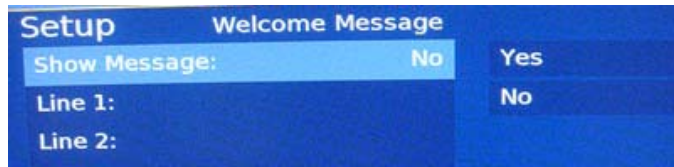
When selecting or deselecting an option on this sub-menu.



Welcome Message Options

This menu item provides for a way to have a welcome message shown on the display.

- Show Message (Yes/No)
- Line 1: First line of text
- Line 2: Second line of text



This setup section provides system level settings for the EBS-SP35.

Setup	Control	
ESP:	Off	Hours: 4
Source Menu Item:	Yes	Off
Picture Format Menu Item:	Yes	
Minimum Volume:	0	
Maximum Volume:	99	
Security:	Standard	

ESP (Energy Savings Protection)

This menu item allow for a setting of a default time off to protect against a TV being left on when a guest leaves a room without turning off the TV. The mode can be set On or Off, and the hours of inactivity until it turns itself off can be 1 to 9 hours.

Source Menu Item

This menu item is a Yes/No selection and allows control over whether a user, through the user menu, has access to input selection.

Picture Format Menu Item

This menu item is a Yes/No selection and allows control over whether a user, through the user menu, has access to change the Image Format (widescreen or native).

Note: This option will be No on all Plasma monitors to prevent image retention

Minimum Volume

Set the available minimum volume from 0 to 99

Maximum Volume

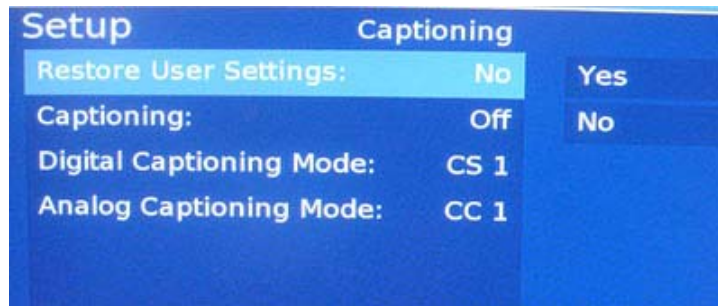
Sets the available maximum volume from 0 to 99

Security

Provides a Standard and High level of security based on the determination of the system administrator. If high security is needed, please contact your Sony representative for details on this technical implementation.

Captioning Options

This submenu is used to control the default values for the Closed Captioning function on the EBS-SP35 device.



Restore User Setting

This setting allows for the selection of allowing user settings for CC to be stored between power cycles, or to always use a default setting on power on. Select YES to override the previous user CC setting on power on, or select NO to allow the previous user setting to be used on the next power on.

Captioning

This setting allows an ON or OFF setting for CC as a default power on status.

Digital Captioning Mode

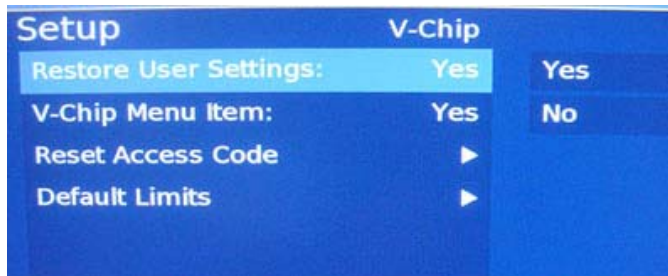
This setting allows the selection of the CC mode to be used for the Digital Channels

Analog Captioning Mode

This setting allows the selection of the CC mode to be used for the Analog Channels

V-Chip Options

This submenu sets up default options for the V-Chip settings.



Restore User Setting

This setting allows for the selection of allowing user settings for V-Chip to be stored between power cycles, or to always use a default setting on power on. Select YES to override the previous user V-Chip setting on power on, or select NO to allow the previous user setting to be used on the next power on.

V-Chip Menu Item

This setting controls whether the user has access to the V-Chip selection and settings. Selecting YES will allow the V-Chip menu item to appear on the user menu. Selecting NO will cause the V-Chip settings to no be user accessible and they will not appear on the user menu.

Reset Access Code

This is an open setting to allow for the reset of the code. In set up mode, this code can be overwritten without knowing the previous code. This is useful incase the previous user forgot the code. The code will be reset to the default code of 0000

Default Limits

This section allow for various default values to be set for the EBS-SP35.



Enable V-Chip

This setting is a YES/NO selection. By setting YES, the default V-Chip settings will be active when the EBS-SP35 starts up. Selecting NO disables the V-Chip settings.

Select TV Ratings

This matrix allows for allowing or restricting various settings, including the TV industry Parental Guide ratings, and new specific ratings:



TV-Y = All Children
 TV-Y7 = Directed to Older Children
 TV-G = General Audience
 TV-PG = Parental Guidance Suggested
 TV-14 = Parents Strongly Cautioned
 TV-MA = Mutual Audience Only

FV = Fantasy Violence (cartoons)
 V = Violence
 S = Sexual Situations
 L = Language
 D = Suggestive Dialog

Use the arrow keys to highlight a box in the matrix and then use the 0 button on the remote is used to toggle between selections. When finished, move to the OK box and press 0 to save settings and exit.

Select Movie Ratings

This menu allows for the authorization or exclusion of content based on the Movie Rating system.

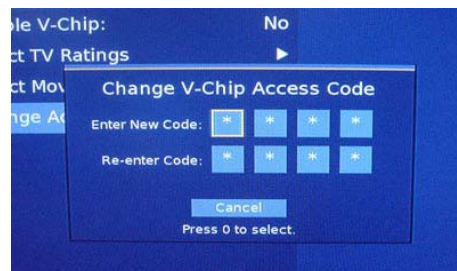


G = Children and Family
 PG = Parental Guidance Suggested
 PG-13 = Parental Guidance – Special Guidance to children under 13
 R = Restricted. No one under 17 without an adult
 NC-17 = No children under 17
 X = Adult content / Adults only
 Not Rated = Some films are not rated and other content is beyond NC-17 and withdrawn before rating..

Use the arrow keys to highlight a box in the matrix and then use the 0 button on the remote is used to toggle between selections. When finished, move to the OK box and press 0 to save settings and exit.

Change Access Code

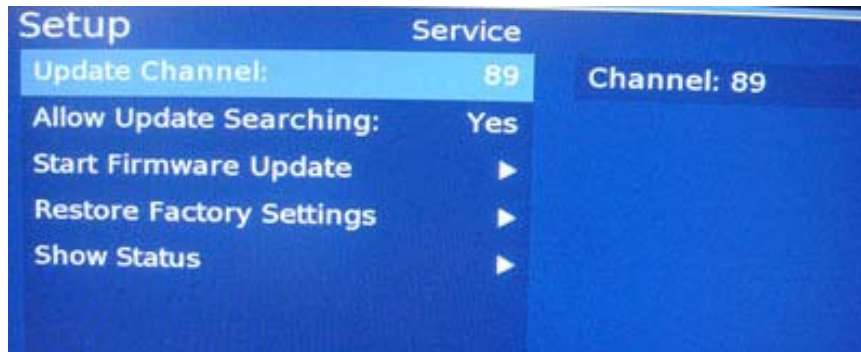
The V-Chip Access Code can be set through the set up process using this function.



Service Options

The EBS-SP35 is an advanced media device with the ability of communicating through an RF network to maintain updated firmware and control. The features outlined below are advanced functions designed for an integrated RF system.

This menu area is used to set up parameters for servicing the EBS-SP35 or performing service functions.



Update Channel

This feature is used for setting a channel to perform firmware updates. Using the numeric keys on the remote, enter the channel that has been identified by your system administrator for firmware updates.

Allow Update Searching

This YES / NO selection either allows or prohibits the display from searching for an update channel for firmware updates. Having this selected as YES will allow updates when the Update Channel needs to be changed for some reason.

Start Firmware Update

To manually initial a firmware update, press the Right arrow button on the remote from this menu line. The SP35 will immediately begin the firmware update process and reboot when complete.

Note: During a firmware update, the Display and EBS-SP35 should not be unplugged or turned off. Doing so while firmware is being downloaded and upgraded on the device could damage the unit and make it unusable.

If the firmware update was initiated by mistake, it will time out after 3 to 5 minutes.

Restore Factory Settings

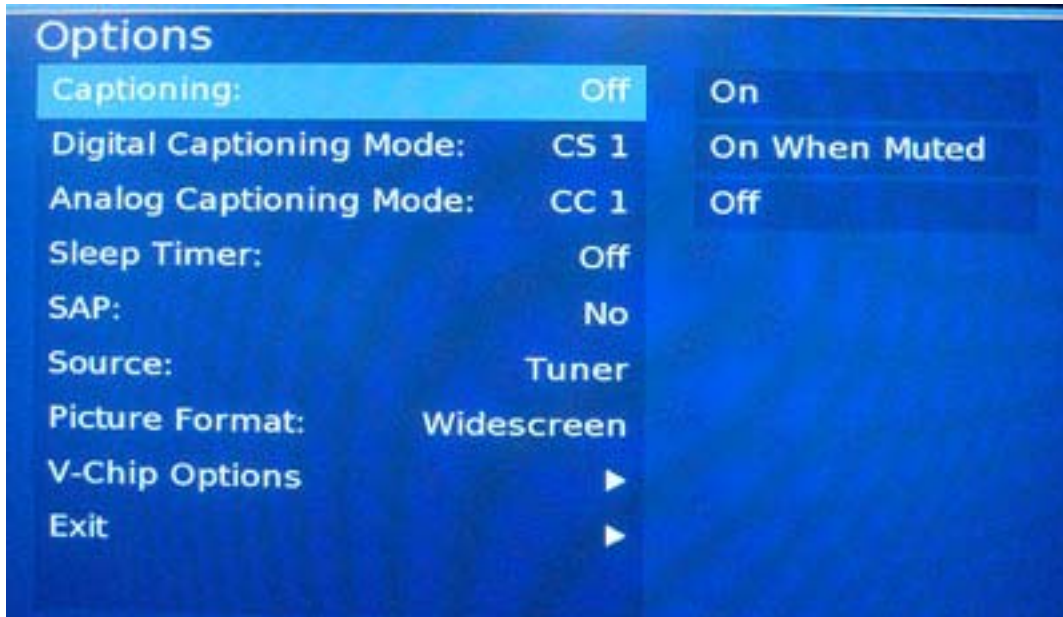
This function allows the EBS-SP35 to be reset to the factory settings. Changes, channel lineup programming and other setup customizations will be lost and the SP35 will return to factory settings.

Show Status

This menu item will activate a status window showing important information about the display, EBS-SP35, firmware versions and other diagnostic data.

USER MENU

User menus are accessed using either the lodging remote provided in the hotel room, or the Sony remote supplied with the Sony display. These menus are available to users to enjoy the features of the EBS-SP35 and Sony display. Only a few control functions are available through the user menus.



Captioning

This feature allows the selection of OFF / ON and On When Muted, Using the arrow buttons highlight the desired setting and then press the Left Arrow button to save and exit the field.

Digital Captioning Mode

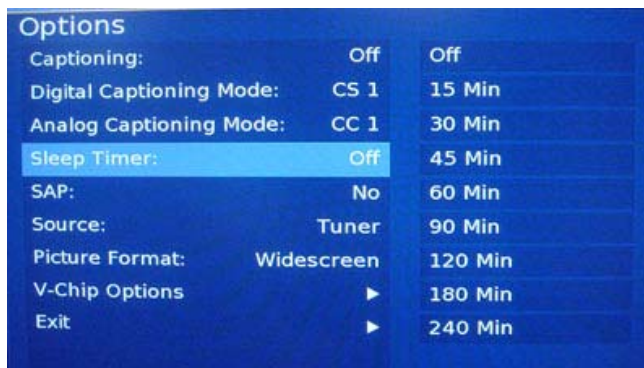
This allows the user to select the format of the CC signal for digital channels

Analog Captioning Mode

This allows the user to select the format of the CC signal for analog channels

Sleep Timer

The sleep timer function allows the user to set the TV to turn off automatically after a selected number of minutes.

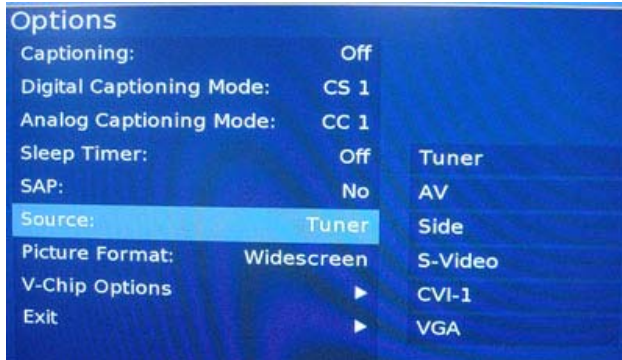


Secondary Audio Programming (SAP)

This menu item allows the user the option of turning on SAP audio if available.

Source

If made user-accessible from the Setup Menu, the user will have the ability to select available inputs on the Sony Display for use of attached media devices. If this feature is not enabled on the Setup menu, this item will not be visible on the User Menu.

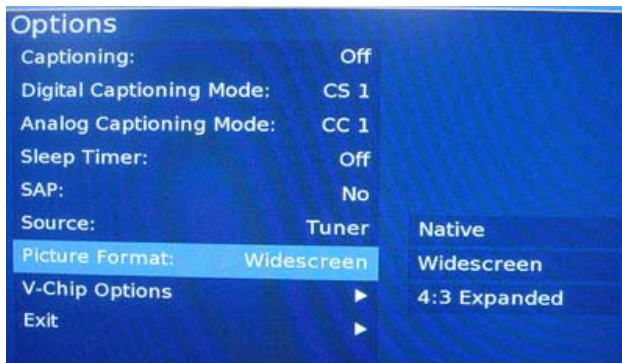


Note:

The available inputs will be based on the model of Sony display and video expansion boards installed (if any).

Picture Format

If made user-accessible from the Setup Menu, the user will have the ability to adjust the aspect ratio of content presented on the Sony Display. If this feature is not enabled on the Setup menu, this item will not be visible on the User Menu.



Note:

On Plasma monitors, user access to Picture Format will be limited to prevent the potential for image retention.

V-Chip Options

If made user-accessible from the Setup Menu, the user will have the ability to set and control V-Chip settings to restrict content from being shown on the EBS-SP35. If this feature is not enabled on the Setup menu, this item will not be visible on the User Menu.

For information on how this feature operates, please

OPERATION

General Operation

The EBS-SP35 is an advanced HDTV and NTSC TV tuner with features that support lodging systems and stand-alone operation.

Lodging Mode

The EBS-SP35 will automatically function in a lodging mode when attached to a compatible PPV system. The EBS-SP35 will communicate with lodging system, identify the system and the necessary communication protocols and immediately send commands to the Sony display necessary to function with the attached PPV system.

Stand Alone

To control the EBS-SP35 in stand-alone mode, the EBS-SP35 must not be connected to PPV system. If the display is connected to a PPV system, first disconnect the RJ12 communication cable between the EBS-SP35 and the PPV control box. (RJ12 is connected to CONTROL - PPV).

In Stand Alone mode, the EBS-SP35 will respond to the Sony remote and other compatible PPV system remotes. To access the User Menu in stand alone mode, press the MENU button on the remote.

Note on LX2 remote

The supplied remote controller for the Sony FWD-32LX2 and FWD-40LX2 does not have a Channel Up or Channel Down buttons. To change channels on the EBS-SP35, you can use the UP Arrow or Down Arrow on this remote, or use any Sony TV remote or universal remote supporting the TV IR commands.

Controlling the Sony Display

The EBS-SP35 and Sony displays are designed to use the same remote control shipped with the Sony display, while minimize conflicting commands that could cause the display and EBS-SP35 to both react.

When the EBS-SP35 is connected to the Sony Display by the Communication cable the Sony display will not respond to the remote. All commands to control the display will be controlled by the EBS-SP35.

If you need to access the Sony display menus or features directly, follow these steps:

1. Make sure the EBS-SP35 is connected to the Sony display by the communication cable (RJ12 on SP35 and RS232 and Control-S Out on display).
2. Power off the Sony Display and EBS-SP35 with the remote
3. Remove the Communication Cable from the SP35
4. Power the Sony Display back on with the remote

The Sony display will now respond to the Sony remote for menu and other display functions.

Note: If the Communication Cable is removed while the display is on, the Sony display may not respond to the remote or buttons. To correct this, unplug the power to the display and EBS-SP35, attached the Communication Cable between display and EBS-SP35. Apply power to the display and EBS-SP35. After the system boots up and returns active, follow steps #2 - #4 above.



TROUBLESHOOTING / FAQ

Troubleshooting

Display Show Blank Screen and “No Input”

The EBS-SP35 is designed to only work with specific Sony displays. To activate the video, the EBS-SP35 must communicate with the display via the Communication Cable.

Possible Remedies:

- Check the power to the EBS-SP35. Make sure that the green LED light is visible from the top of the box.

- Check that the Communication cable is connected properly between the EBS-SP35 and the Sony Display
 - o The RJ12 (phone jack style) connector must be connected to the CONTROL – DISPLAY input on the SP35
 - o The 9-Pin Serial connector must be connected to the REMOTE connection.
 - (Note: on the Sony Plasma monitors, an Null Modem adapter may be necessary to provide communication over the RS232 connector)
 - o The 1/8-inch mini-jack must be plugged into the Control-S OUT port
- Make sure you are using the EBS-SP35 with one of the following Sony displays:

L:CD Models

- | | | |
|-------------|---------------|--------------|
| - FWD-32LX2 | - FWD-32LX1/R | - KLH-W26 ** |
| - FWD-40LX2 | - FWD-40LX1 | - KLH-W32 ** |

Plasma Models

- FWD-50PX2
- FWD-42PX2
- FWD-42PV1

** - The KLH-W26 / KLH-W32 models can support the EBS-SP35, yet they require a BKM-FW20 option card which is standard on the LX2 models. The KLH models are designed to use the ICS-SP30 card version of the HD Tuner.

The Display and/or EBS-SP35 Do Not Respond to Remote

Possible Remedies

- Check that both the display and EBS-SP35 have power attached
- Check that the Communication Cable is correctly attached.
 - o The 1/8-inch mini-jack connector must be plugged into the Control-S OUT connection on the display.
 - o Be sure that this plug is NOT plugged into the Control-S IN

My Display Does Not Respond to The Remote or Button on the Display

Possible Remedies

- It is possible that the Communication Cable became disconnected during operation and the display must be reset
- Review the Section “Controlling the Sony Display” on Page 18 for further details.



FAQ

Q: Which hospitality systems is the EBS-SP35 Compatible With?

A: The EBS-SP35 is designed to be compatible with most major PPV Hospitality Systems, including:

- LodgeNet (Tested and Certified Compatible)
- OnCommand (Tested and Certified Compatible)
- SeaChange (Tested and Compatible)
- More...

Most lodging system operate on a similar standard of protocol commands for operation. If a PPV provider is not listed above, it is still likely that the EBS-SP35 is capable of working with this provider.

Q: Does the EBS-SP35 support LG Pro:Idiom™ decryption technology?

A: The EBS-SP35 includes the Pro:Idiom decryption technology for support of HD PPV systems from LodgeNet and OnCommand using Pro:Idiom

Q: How do I receive technical support?

A: For technical assistance or product repair contact Sony Customer Information Service Center (CISC) at 877-350-3477.

Q: What is the warranty on the EBS-SP35

A: The EBS-SP35 has a limited warranty from Sony against material defects for a period of 12 months from purchase date. For more information on the warranty, refer to www.sony.com/support.

Product Specification

! EBS-SP35 Specifications

ITEMS		DETAILS	COMMENTS
Dimensions		6.26"x11.5"x1.1"	
Total Power Consumption		12.5 Watts Typical	12V DC External Power Supply
Tuner	Digital	QAM/8VSB	
	Analog	NTSC	
Decryption		Pro:Idiom	
Inputs	RF Input	One	
	RS232		For servicing
Outputs	HDMI	With HDCP	
	Digital Audio	Optical	
	Analog Audio	L/R Audio - (2) RCA Connectors	
Standard	Product Safety	Risk Assessment based on IEC60950	STB uses external power supply
	EMC	FCC (Class B)	
	Environmental	RoHS	
OSD	English		Co-ordinate Font, Color & Position
Control Ports	Display	RJ12 Connector	MTI to RS232 Communication Cable
	PPV	RJ12 Connector	MTI command protocol

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

