EVS CDV07 Analog Video Distribution Amplifier Installation Guide

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Improvement Requests

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.com.

Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.
You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or on the EVS website on the following page: http://www.evs.com/contacts.

User Manuals on EVS Website

The latest version of Media Infrastructure manuals are available at: https://mi-sftp.evs.com/ The user manuals for other EVS products can be found at the EVS download center, on the following webpage: https://www.evs.com/en/download-area.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

- ALWAYS disconnect your entire system from the AC mains before cleaning any component. The product frame (SFR18 or SFR04) must be terminated with three-conductor AC mains power cord that includes an earth ground connection. To prevent shock hazard, all three connections must always be used.
- NEVER use flammable or combustible chemicals for cleaning components.
- NEVER operate this product if any cover is removed.
- NEVER wet the inside of this product with any liquid.
- NEVER pour or spill liquids directly onto this unit.
- NEVER block airflow through ventilation slots.
- NEVER bypass any fuse.
- NEVER replace any fuse with a value or type other than those specified.
- NEVER attempt to repair this product. If a problem occurs, contact your local EVS distributor.
- NEVER expose this product to extremely high or low temperatures.
- NEVER operate this product in an explosive atmosphere.

  Warranty: EVS warrants their products according to the warranty policy as described in the general terms. That means that EVS Broadcast Equipment SA can only warrant the products as long as the serial numbers are not removed.

Date created: 01-07-06
Date last revised: 11-11-06
 This product complies with the requirements of the product family standards for audio, video, audio-visual entertainment lighting control apparatus for professional use as mentioned below.

Introduction to Synapse

An Introduction to Synapse

Synapse is a modular system designed for the broadcast industry. High density, intuitive operation and high quality processing are key features of this system. Synapse offers a full range of converters and processing modules. Please visit the EVS Broadcast Equipment SA Website at http://www.evs.com to obtain the latest information on our new products and updates.

Local Control Panel

The local control panel gives access to all adjustable parameters and provides status information for any of the cards in the Synapse frame, including the Synapse rack controller. The local control panel is also used to back-up and restore card settings. Please refer to the RRC18, RRC10, RRC04, RRS18 and RRS04 manuals for a detailed description of the local control panel, the way to set-up remote control over IP and for frame related settings and status information.

Remote Control Capabilities

The remote control options are explained in the rack controller manual. The method of connection to a computer using Ethernet is also described in the ERC/ERS/RRC/RRS manual.

CHECK-OUT: “EVS CORTEX” SOFTWARE WILL INCREASE SYSTEM FLEXIBILITY OF ONE OR MORE SYNAPSE FRAMES

Although not required to use Cortex with a Synapse frame, you are strongly advised to use a remote personal computer or laptop PC with EVS Cortex installed, as this increases the ease of use and understanding of the modules.

A Quick Start

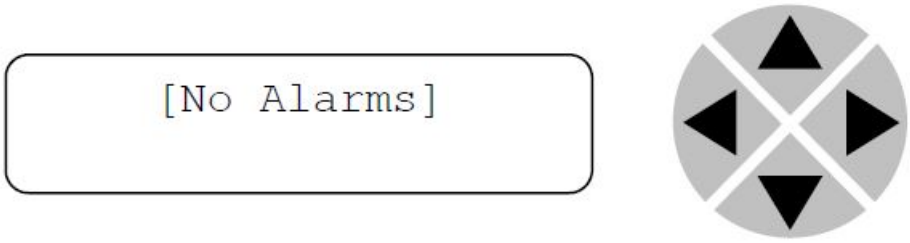
When Powering-up

On powering up the Synapse frame, the card set will use basic data and default initialisation settings. All LED’s will light during this process. After initialisation, several LED’s will remain lit – the exact number and configuration is dependent upon the number of inputs connected and the status of the inputs.

Changing settings and parameters

The front panel controls or the EVS Cortex can be used to change settings. An overview of the settings can be found in chapter 5, 6 and 7 of this manual.

Front Panel Control



Front Panel Display and Cursor

Settings are displayed and changed as follows
Use the cursor ‘arrows’ on the front panel to select the menu and parameter to be displayed and/or changed.

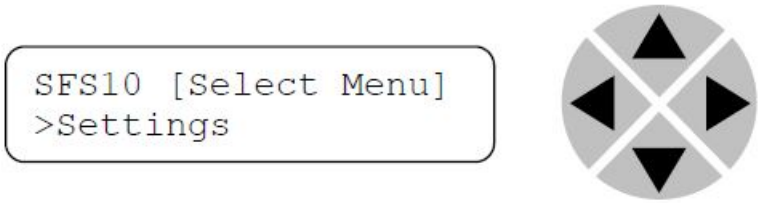
- Press ► To go forward through the menu structure.
- Press ◄ To go back through the menu structure.
- Press ▲ To move up within a menu or increase the value of a parameter.
- Press ▼ To move down through a menu or decrease the value of a parameter

REMARK: Whilst editing a setting, pressing ► twice will reset the value to its default.

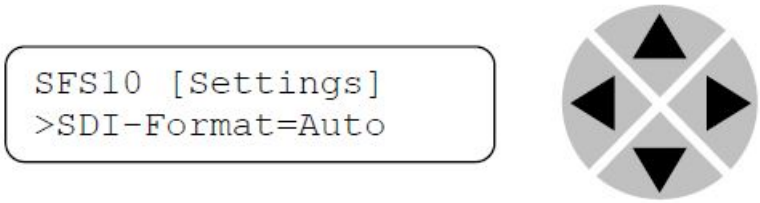
Example of changing parameters using front panel control

The display as shown below

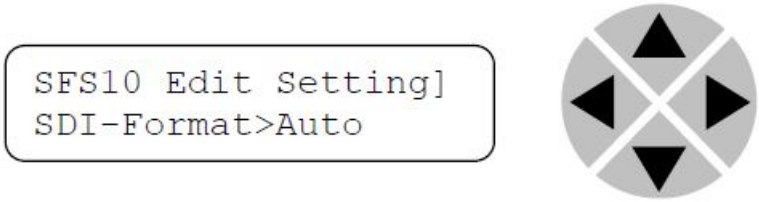
Pressing the ► selects the SFS10 in frame slot 01. The display changes to indicate that the SFS10 has been selected. In this example the Settings menu item is indicated



Pressing the ► selects the menu item shown, in this example Settings. (Pressing ▲ or ▼ will change to a different menu eg Status, Events).
The display changes to indicate that the SFS10 Settings menu item SDI-Format has been selected and shows that it current setting is Auto.



Pressing the ► selects the settings item shown, in this example SDI-Format.
(Pressing ▲ or ▼ will change to a different setting, eg Mode, H-Delay).
The display changes to indicate that the SFS10 Edit Setting menu item SDI-Format has been selected.

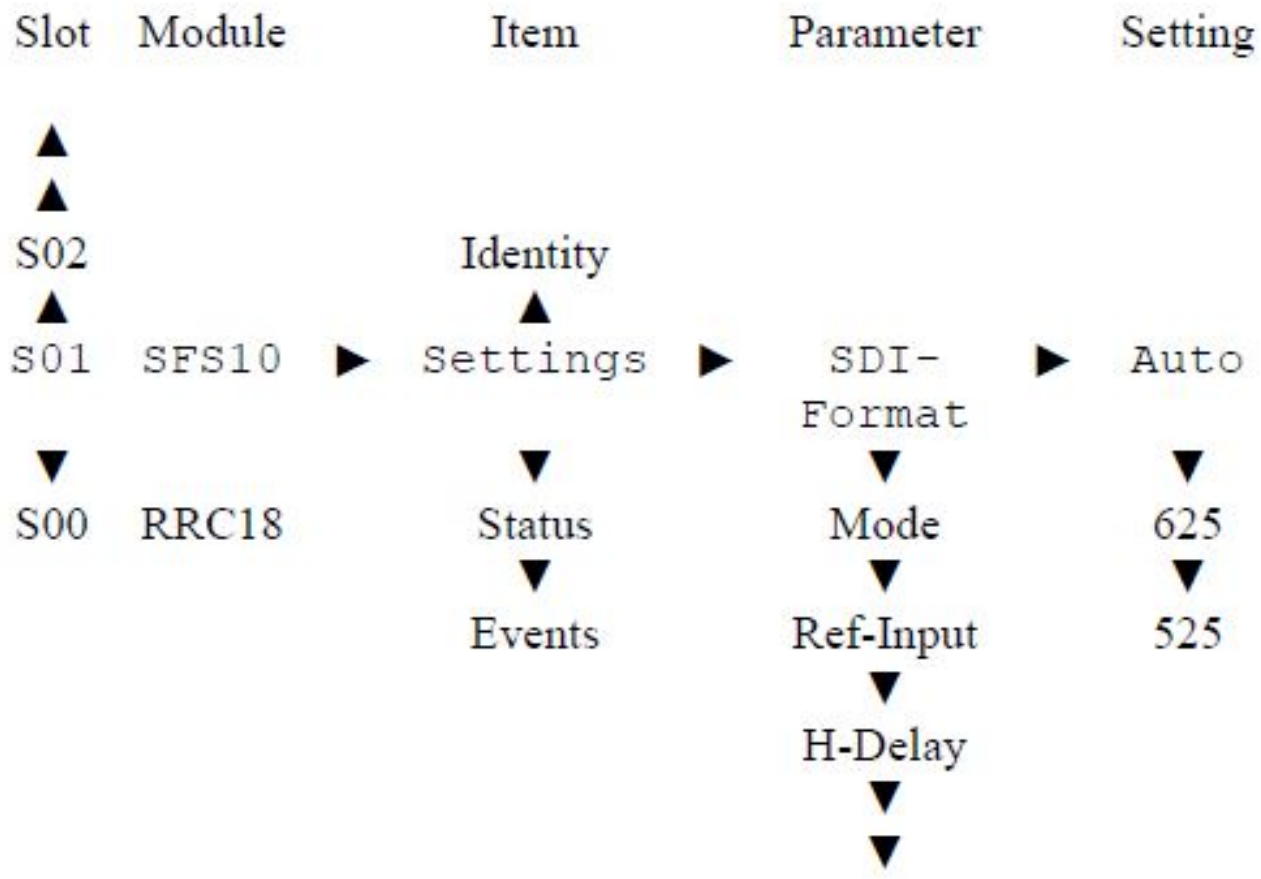


To edit the setting of the menu item press ▲ or ▼.
All menu items can be monitored and/or changed in this way. Changing a setting has an immediate effect.

Synapse SetUp Software

- Synapse SetUp Software can be used to change the settings of Synapse modules from a PC, either locally or remotely. The software enables communication based on TCP/IP between the setup PC and Synapse frames/modules.
- Each Synapse frame is addressed through its rack controller's unique IP address, giving access to each module, its menus and adjustment items. The Synapse SetUp software has access to data contained within the Synapse module and displays it on a GUI. The software has an intuitive structure following that of the module that it is controlling.
- Having selected the desired Frame and Module from the GUI Synapse Network View, select the menu item that you wish to open. Opening the menu item gives a complete list of available properties with their associated Value.
- For example to change a setting e.g. SDI-Format, select SDI-Format form the list of settings by 'double clicking' to open a dialogue box. The dialogue box allows parameters to be changed or set to default value. On completion close the dialogue box.

Menu Structure Example



REMARK: Further information about Front Panel Control and Synapse Set Up Software can be obtained from the RRC18 and RRC04 operational manuals.

The CDV07 Card

Introduction

The EVS CDV07 is distribution amplifiers providing a low loss electronically balanced input with loop through or terminate connector. If necessary the input can be used truly floating.

Back planes

The CDV07 can be used with a BPL01 or BPL07 back plane. If the BPL01 is used then the CDV07 has eight outputs. If the BPL07 is used then the CDV07 has seven outputs and one loop. By means of this BPL07 the input can be used floating.

Miscellaneous

The CDV07 cards fit into the EVS SFR18 rack. LEDs at the front of the board indicate the presence of power and input signal. The CDV07 can be controlled by EVS Synapse set-up software. Refer to menu structure for control.

TRI-LEVEL SYNC

The CDV07 is designed for carrying TRI-level references for HD installations.

Wordclock

The CDV07 can be used with a wordclock input, but the signal detection will not work.

Settings Menu

Introduction

The settings menu displays the current state of each setting within the CDV07 and enables the item to be changed or adjusted.
Settings can be changed using the front panel of the Synapse frame (SFR18 or SFR04) or Synapse SetUp software.
Please refer to chapter 3 for information on the Synapse front panel control and Synapse SetUp software

Gain

If Gain is set to manual, the InputGain setting allows the video signal present at the input to be amplified or attenuated within the range –3.12dB to 3.11dB. The default setting is 0.00dB.

Status Menu

Introduction

The status menu indicates the current status of each item listed below

Input

This status item indicates whether an analogue video signal is present at the input. The status can be Present if a video signal is detected or NA if a video signal is not detected.

Events Menu

An event is a special message that is generated on the card asynchronously. This means that it is not the response to a request to the card, but a spontaneous message

What is the Goal?

The goal of events is to inform the environment about a changing condition on the card. A message may be broadcast to mark the change in status. The message is volatile and cannot be retrieved from the system after it has been broadcast. There are several means by which the message can be filtered

CDV07 Events

The events reported by the CDV07 is as follows;

Announcements

Announcements is not an event. This item is only used for switching the announcement of status changes on/off. 0=off, other =on

Input

Input can be selected between 0 .. 255. 0= no event, 1..255 is the priority setting.

What information is available in an event?

The message consists of the following items;

1. A message string to show what has happened in text, for example: “INP_LOSS”, “REF_LOSS”, “INP_RETURN”.
2. A tag that also shows what happens, but with a predefined number: e.g. 1 (= loss of input), 2 (= loss of reference), 129(= 1+128 = return of input). For a list of these predefined tags see the table on the next page.
3. A priority that marks the importance of an event. This value is defined by the user and can have any value between 1 and 255, or 0 when disabled.
4. A slot number of the source of this event.

The Message String

The message string is defined in the card and is therefore fixed. It may be used in controlling software like Synapse Set-up to show the event.

The Tag

The tag is also defined in the card. The tag has a fixed meaning. When controlling or monitoring software should make decisions based on events, it is easier to use the tag instead of interpreting a string. The first implementation is the tag controlled switch in the GPI16. In cases where the event marks a change to fault status (e.g. 1 for Loss of Input) the complement is marked by the tag increased by 128 (80hex) (e.g. 129 (81hex) for Return of Input).

Defining Tags

The tags defined are:

Event Menu Item	Tag		Description
Announcements	0 or NA	0 or NA	Announcing of report and control values
Input	01_{hex}=INP_LOSS	81_{hex}=INP_RETURN	primary input lost or returned

The Priority

The priority is a user-defined value. The higher the priority of the alarm, the higher this value. Setting the priority to Zero disables the announcement of this alarm. Alarms with priorities equal or higher than the Error Threshold setting of the RRC will cause the error LED on the Synapse rack front panel to light.

The Address

Together with the message string or the tag, the slot number or address of the card is relevant to be able to assign the event to a certain card.

LED Indication

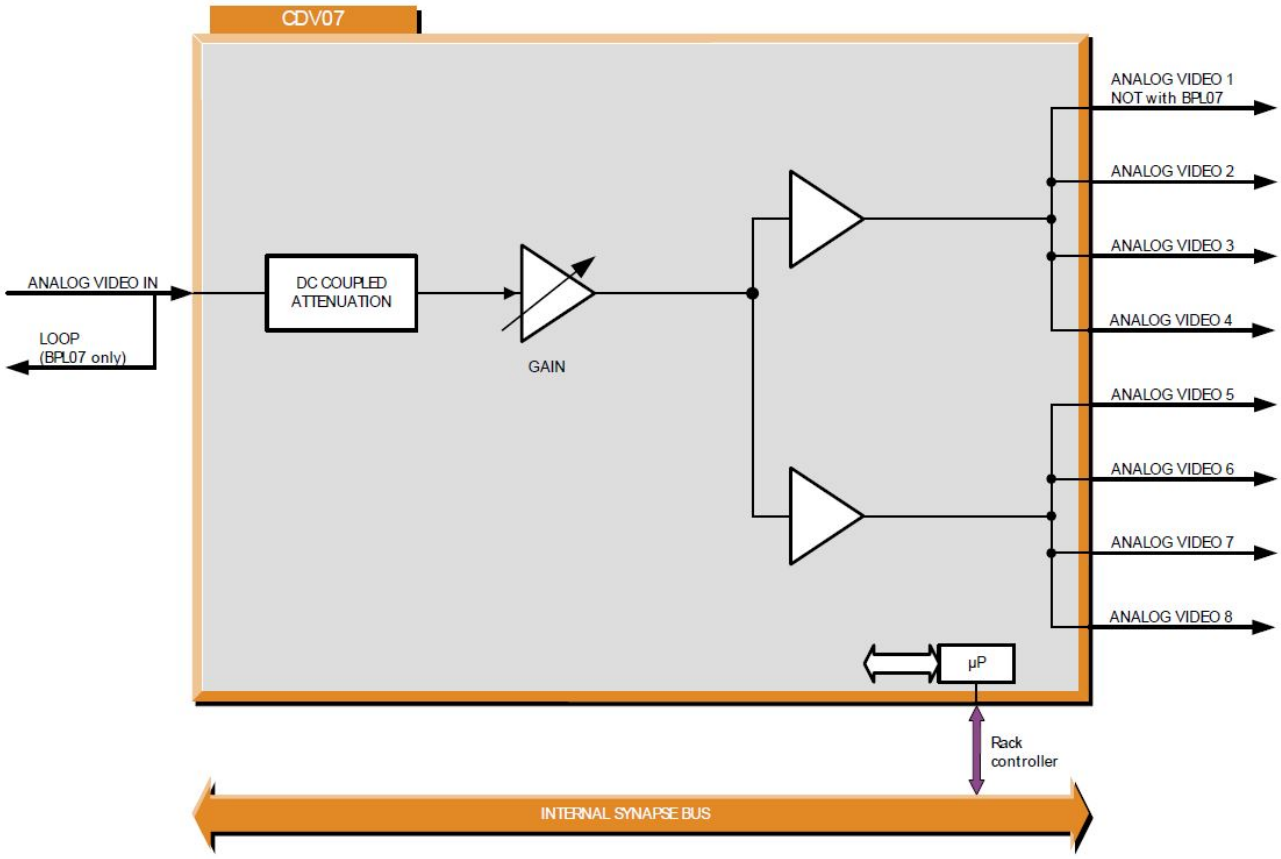
POWER LED

The power LED indicates the presence of power on the CDV07.

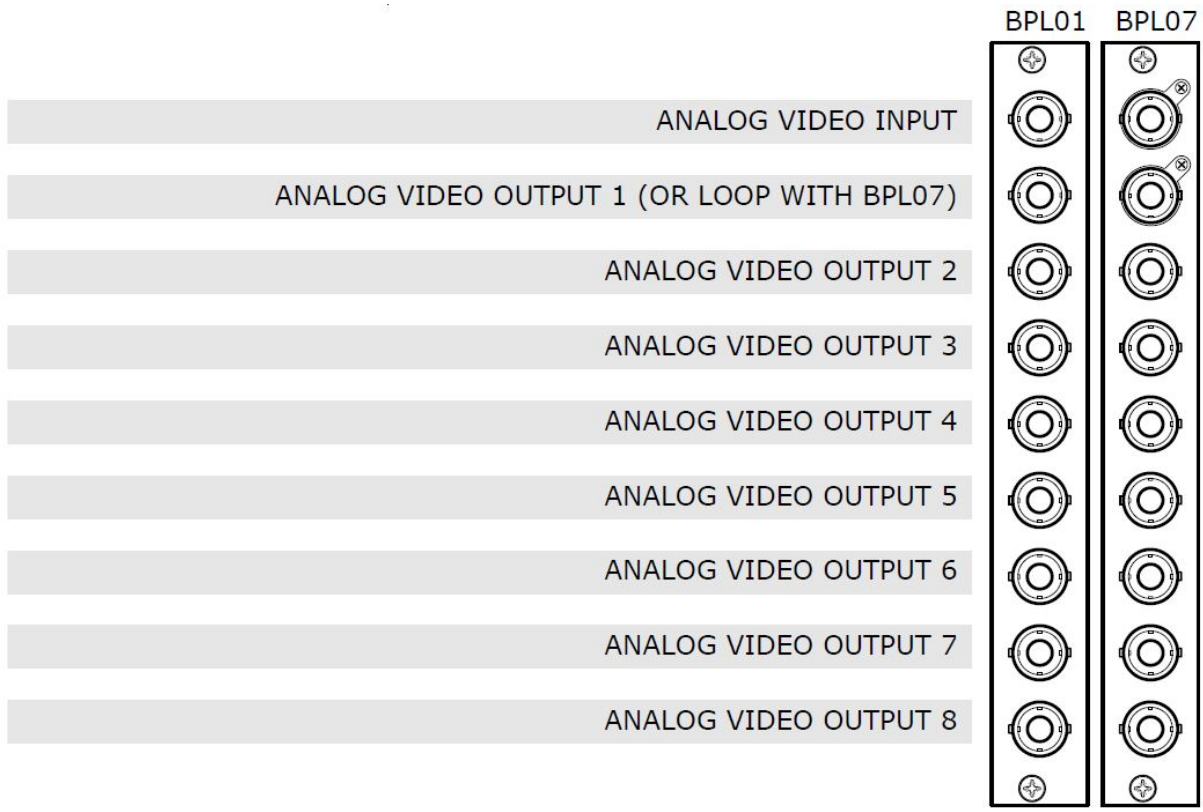
INPUT LED

This LED indicated the presence of a valid analog video signal on the input.

Block Schematic



Connector Panel



Documents / Resources

	EVS CDV07 Analog Video Distribution Amplifier [pdf] Installation Guide CDV07 Analog Video Distribution Amplifier, CDV07, Analog Video Distribution Amplifier

References

- Live video production solutions | EVS EVS
- Contact us | EVS EVS
- Axon Download Area
- EVS | Immersive Live