



*Super Edit Software Release Notes*  
**VPE-V8.4B / DPE-V1.0B**

SE- V8.4B

Date: July 20, 1999

Changes made to Super Edit, Super Edit NT & Super Edit NLE since Version 8.4A Release:

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**ALL**=Changes affect VPE & DPE    **DPE**=Changes affect DPE only    **NLE**=Changes affect NLE software only

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1. **ALL - Beta SX VTRs** - Corrected a problem where only 2 channels of audio would insert edit if there were no other 4-channel VTRs in the VTR Model list.
2. **ALL - Drop Frame ALT TC** – Fixed a problem where Sony SX, Panasonic DVCPPro, and other VTRs that can use DF or NDF in the Control Track or Tape Timer modes, would only use NDF.
3. **ALL - Tascam DA-88/DA-98** – Fixed a problem where under certain conditions using a DA88 or DA-98 protocol would not allow a Sony VTR to pre-roll properly.
4. **ALL - SDL Quickframe** - A VTR style control protocol has been added for the SDL Quickframe DDR. (See Note 1 for Tech Note.)
5. **ALL - Leitch Xpress 12x1 Preview Switcher** – A protocol has been added to allow the use of the Leitch Xpress 2x1 as a Preview Switcher. (See Note 2 for Tech Note.)
6. **ALL - Graham-Patten D/ESAM Digital Mixers** – A new protocol is available for the G-P D/ESAM 230, 400, and 820 digital audio mixers. This new ESAM4 driver offers many new features and capabilities. (See Note 3 for Tech Note.)
7. **ALL - Sony Digital Switcher** – X-PEGS commands have been added to all Sony Digital Switcher types. (See Note 4 for Tech Note.)
8. **ALL - Ross Synergy Digital Switcher** – The default X-PEG trim for the Ross Synergy Switcher has been changed to –3 (minus 3).
9. **ALL - Multi Record** – The condition that would not let you record more audio channels on a Slaved Recorder than those assigned on the master Recorder has been corrected.
10. **ALL - Sony MXP-390** – This protocol has been improved to prevent occasional loss of communication.

11. **ALL - Panasonic DVCPro** - If two or more VTRs were used in a Slave set with a non-DVCPro VTR as the first member of the Slave set, the system would occasionally enter a “wait state” and appear to be locked up. This has been fixed.
12. **DPE - Inhibit Menus during functions** – Most Super Edit NT menu bar functions are now inhibited during the period those functions are executing to prevent multiple instantiations.
13. **DPE - Improvements in Super Edit processor reset** – Improvements have been made in the reset and handling of errors when the Super Edit processor is inadvertently stopped.
14. **DPE - Keyboard lockout when aborting an NT dialog** – Super Edit NT will no longer lock out the keyboard if you do a [SHIFT RESET] while in a Super Edit NT dialog.
15. **NLE - Added “CLIP SCAN” Feature** - When Clips are displayed by pressing [ASGN] or [ALT][ASGN], the first (Mark-In) frame of video is automatically displayed on the Timeline Picture monitor. Pressing [ALT][↑] (up arrow) and [ALT][↓] (down arrow) scrolls up and down through the listed Clips, automatically displaying the first marked frame of each Clip.
16. **NLE - Sync Check for Profile** - There have been sporadic reports of match frame problems traced to improper synchronization of a Profile source, the Profile Timeline, or the Profile record channel. This has been addressed by adding a “Sync Check” feature for Profile. (**See Note 5 discussion**)
17. **NLE - Look-ahead** – Due to popular request, this feature has been disabled in the NLE mode for Auto Assembly.
18. **NLE - Disk space remaining** – The inaccuracies of this feature have been corrected.
19. **NLE - Added striped timecode to Mode 2 movies** – In NLE, the Timeline “timecode” is created by Super Edit to emulate timecode on tape. In order to maintain the continuity of the Timeline and the EDL, when Mode 2 Movies are created in NLE, the Timeline timecode is now added to the Movie.
20. **NLE - Movie IDs** – When Movies are created in NLE and displayed by pressing [ASGN] or [ALT][ASGN], they now carry the extensions **.movi1, .movi2, and .movi3** for easier ID.
21. **NLE - [ALT] [RECAL] then Replace** – This feature has been re-engineered to allow the replacing of .TEMP CUT events without having to re-digitizing them.
22. **NLE - Auto Assembly of a delayed dissolve** - Can now be performed without having to redigitize the event.
23. **NLE - Added INIT# 153 – SLAVE DIGITIZE ON/OFF** to enable or disable the re-digitizing of CUT edits with Slaves.
24. **NLE - Lock Jog** – now works with all devices in NLE.

25. **NLE – AUX or BLACK Source** - If the selected source is either AUX or BLACK, NLE will now use the disk pre-roll (INIT# 157) rather than the VTR pre-roll (INIT # 1).

**NOTE 1 - Sierra Design Labs Quickframe**

The Sierra Design Labs *Quickframe* is a disk-based VTR emulator with both a Sony BVW-like interface and a SMPTE-style interface. Editware currently supports only the Sony-style interface.

This interface supports several advanced disk-emulator features. These features include instant search to target timecode and pre-rolls shorter than a VTR.

<b>Control:</b>	Direct
<b>Cable Requirements:</b>	Black Reference or BARS to REF IN
<b>Edit Frame Accuracy:</b>	98% of edits are frame accurate if machines are timed to VPE recommendations and Editor QC is set to 1 or greater.
<b>Edit Timing Accuracy:</b>	Nominal with current VTR software. The Editor can adjust IN and OUT times.
<b>Audio Track Selection:</b>	A1, A2, A3 and A4 are supported in the protocol. The SDL Advanced Audio unit control edit interface is still under development by SDL.
<b>Sync Control Reference:</b>	Time Code
<b>Alt TC Ref Selection:</b>	Time Code and Tape Timer.
<b>Motion Control Functions:</b>	<b>Jog:</b> Approximately 2 frames per revolution of jogger knob. <b>Var:</b> From –100% to +200% of play speed from editor control. <b>Shuttle:</b> Approximately –50x to +50x play speed.
<b>Programmed Motion:</b>	[SLOW] key: Learn current variable speed into [SLOW] key with [SHIFT][SLOW].
<b>Slo-Mo Match:</b>	Yes.
<b>Fill:</b>	Yes.
	Program motion provides higher resolution near play speed through program Play. The standard .1% increment using Program Play is available from 85% through 115% range of play speeds with PEGs.
<b>E-E Preview Performance:</b>	Use standard single monitor preview VTR. VTR allows E-E operation for source switching in all transport modes.
<b>Embedded Firmware Level:</b>	7.32 02/13/99 as tested.

**NOTE:** This level firmware has a potential lock-up at the end of recording issue that SDL has resolved. Contact SDL for the latest firmware revision.

The firmware version is viewable from the Setup/Config 2 menu.

**Super Edit Software:** V8.4B or later.

## **Quickframe Menu Settings:**

### **Setup/Config 1:**

Video Ref: Src (Per SDL, contact SDL for latest setting preference).

### **Setup/Config 2:**

Field/Frame Lock F1/Frame Lock F2: set to Frame Lock F1.

Play Delay: 012

Record Delay: 006

### **Setup/Config 3:**

Drop Frame OFF/ON Auto (Ensure that it is in Auto mode).

Interpolator: Off.

### **Setup/Config 4:**

422: Enabled

422 Protocol: Sony.

## **Super Edit settings to minimize Pre-roll time:**

If the Super Edit QC for the SDL device is set to 1, a minimum pre-roll of 60 frames can be used. For a “normal” QC setting of 3, a minimum of 90 frames can be used. A longer pre-roll setting may be required for the VTRs involved in the edit.

## **NOTE 2 – Leitch Xpress 12x1 Preview**

### **Introduction**

The Leitch Xpress is a 12X1 routing switcher. This protocol controls it as a Preview Switcher and also as a pre-selector.

### **Switcher Setup – (The Leitch Xpress 12x1 must be equipped with the “Serial Control Port” option.)**

The “GVG TEN-XL ASCII” protocol is used and RS-422 operation at **38.4 KB** is recommended. The following jumper and switch settings should be made:

- S1. 1 through 3: Protocol.** 1 and 2 **OFF**, 3 **ON** to select 10XL ASCII protocol.  
**4 through 6: Baud Rate.** 4 and 5 **ON**, 6 **OFF** for 38.4 KB.  
**7 and 8: Multidrop, termination.** Both **OFF**.
- S2. 1 through 8: ASCII Address.** Set to **0**, all eight switches **OFF**.
- S3. RS-422 / RS-232 jumper.** To select RS-422, orient so that the end with the two closed bars is located at the **pin 1** end.

## Cable

The editor is connected to the 9 pin “**OPTION PORT**” located on the rear of the unit. Since this connector is a male connector, use of a standard 9-pin machine control cable requires a “straight-through” (pin 1 to pin 1, etc) gender changer. Alternatively, a cable with a 9 pin “D” male connector on one end, a 9 pin “D” female connector on the other end, and wired pin 1 to pin 1, etc for all nine pins (pin 5 is unused) can be locally obtained.

## Crosspoints

The Leitch Xpress 12x1 has 12 crosspoints that are numbered 1 through 12. As a preview switcher, one crosspoint is assigned as the Record VTR (R-VTR) and another is assigned as Program Out (PGM OUT). The default settings in Super Edit have the R-VTR on crosspoint 1 and PGM OUT on crosspoint 12.

You may change these assignments via the column for preselector crosspoints on the Machine Assignment page in Super Edit. The PGM OUT crosspoint assignment is stored in the preselect column of the AUX device.

### **NOTE:**

**If you enter a crosspoint number greater than 12 for either field, Super Edit will update the display but will not recognize a number greater than 12 in interaction with the 12x1.**

## Preselector

The SWAP VTR feature of Super Edit will interface with the 12x1 as a Preselector.

1. Select the VTR in the Marks Table to swap with the Record VTR and press **[SHIFT][A-VTR]**.
2. Press **[YES]** at the query to perform the SWAP. Do not SWAP with a VTR whose crosspoint assignment exceeds 12 (see the above note).

### **NOTE 3 - ESAM IV Audio Mixer Protocol**

This document covers Super Edit features and parameters pertaining to the D/ESAM IV protocol developed by Graham-Patten Systems and available for the GPS D/ESAM 230, 400, 820 and 8000 Audio Mixers. The protocol is described in detail in GPS document “D/ESAM IV Audio Mixer Protocol” (Version 1.0, November 1995). This protocol is automatically selected in the mixer if Super Edit is configured with the ESAM-4 protocol driver.

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Implemented advantages of the ESAM-4 protocol over the ESAM-2 protocol include:

- Virtual to Logical machine mapping
  - EMEM-type register transfer (AMEM)
  - Storage & Recall between the Mixer and Super Edit. Register data can be stored in the EDL. By invoking the Super Edit “Store EMEMs to Disk” feature, it can be stored to the Super Edit drive and therefore consume only one EDL line of RAM memory.
  - D/ESAM Configuration Saving/Recalling
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#### **Virtual to Logical machine mapping (Assignability)**

Assignability is described in detail in the ESAM IV protocol description. The Mixer consists of Physical inputs that are assigned to Virtual Machines. Virtual Machines are in turn assigned to Logical Machines. Inputs are numbered, and are either Analog or Digital. Virtual Machines are numbered 1 through 255 with “0” being reserved for Silent. Logical Machines are the ones you see on the front panel of the mixer and are labeled “R”, “A”, “B”... “AUX”

#### **The way it was...**

Super Edit has an audio crosspoint setup menu (the Assignment page). Entries in this menu have, in the past, been Logical Machines. As part of the manual Mixer setup, Virtual Machines were mapped to Logical Machines and the Logical Machine was assigned for each Super Edit source. Usually Super Edit’s “VTR-A” source would be assigned to Logical Machine “A” using the audio crosspoint menu (a “1” would be entered in the field). Super Edit “VTR-B” would be assigned to Mixer Logical machine “B” and so on, but not always! In addition, SWAP complicated this since a swap of the “R-VTR” and the “A-VTR” would result in the “A” source using the “R” Logical machine with the fader assigned to it.

#### **...The way it is.**

Super Edit’s new implementation of the ESAM-4 driver uses unique ESAM IV protocol features to solve these issues. The audio crosspoint menu entries are now Virtual Machines. Thus, Super Edit source key “A-VTR” will always select Mixer Logical Machine “A”, and with the desired Virtual Machine identified in the audio crosspoint field. Swap now also reacts correctly, as does Pre-read. Pre-read no longer needs the special Super Edit INIT to name the Pre-read crosspoint. During Pre-read, the correct Virtual machine is identified in the audio crosspoint field and is mapped to the R-VTR automatically.

## Interface

### Switcher-To-Editor Connections

The Editor controls the D/ESAM Mixer through a serial RS422 cable with a 9-pin D connector from the AUDIO CTL Port on the rear of the Editor. The Mixer should be set to the editor's default settings of 38.4 KBaud, 8 bits, 1 stop bit and ODD parity.

The Mixer's "Edit I/F" button on the front panel should be illuminated.

### Editor Setup for D/ESAM Mixer Control

#### Crosspoint Mapping Enable/Disable

Super Edit INIT# 45, "A-MIX XPT MAP", defaults to ON and should be ON to enable Super Edit mapping of the Virtual to Logical Machines. It can be turned OFF if you do not want Super Edit to perform this mapping.

NOTE: If you are upgrading from ESAM-2 to ESAM-4, and using your existing Configuration files, INIT# 45 will default to OFF. Please toggle it to ON and re-save your Config. file.

If enabled, the Virtual to Logical map is sent to the Mixer after an Assign, after a SWAP, and after each press of [SHIFT][RESET].

#### Other Editor Setups

**INIT# 108:** for ESAM-4 is "MIX EMEM BANK". A setting of "0" (the default) will enable EMEM-style learn, transfer and recall to all "effects" banks (as described later).

NOTE: If you are upgrading from ESAM-2 to ESAM-4, the default setting of INIT # 108, formerly used for assign the Pre-read crosspoint, may be 10 or -1. Either of these values is treated as 0, but you should set the value you want and resave your Config. file.

**INIT# 109:** "MIX MON PGM". This can be set to ON or OFF. When OFF, whenever a Source is selected, only that Source is monitored through the monitor bus. When ON, whenever a source is selected, the Mixer Program Output is monitored, allowing you to hear any other currently open Sources.

**INIT# 91:** "STORE EMEMS TO DISK" can be set to ON or OFF. When OFF, AMEM data is stored in the list as EDL lines, using EDL RAM. When turned ON, pointers to the data are stored in the list as EDL lines, and the AMEM data is stored in separate files on the drive selected in INIT# 30. It is not recommended that you use this feature unless your system has a hard disk drive, as a floppy disk will fill up in a short amount of time.

## **Switcher Enable/Disable**

Crosspoint control from the editor over the D/ESAM Mixer can be enabled or disabled by pressing [ALT][AUDIO] at the editor. While crosspoint control is disabled, PEGS and preview commands are still enabled. When crosspoint control is disabled, AMIX-OFF is displayed on the status line of the Super Edit screen.

## **Crosspoint Assignment**

The ESAM-4 Mixer crosspoint assignments are Virtual machines. Crosspoints numbered 1 through 126 can be used by Super Edit for Virtual machines. The value of 0 is used for silence. The value of 127 selects TONE and can be used only for the AUX source.

The Virtual machines can be displayed on the Mixer panel or maintenance terminal. Typically they will have names such as “VTR1”, “VTR2”... “DTR1”, “DTR2”... The crosspoint numbers associated with the Virtual machines is set by the Mixer setup. We have found that typically VTR1 is Virtual machine 1, VTR2 is Virtual machine 2.... DTR1 is Virtual machine 9... but again this is entirely dependent on the Mixer’s setup.

## **Pre-read Crosspoint and Fader Assignment.**

When Pre-read is NOT active, selection of the R-VTR causes selection of SILENT (Virtual machine 0) in the mixer. When Pre-read IS active (The status line indicates “PRE-READ”), selection of the

R-VTR selects the Virtual machine identified in the audio crosspoint field. It is necessary to have a fader assigned to Logical Machine (R-VTR) when Pre-read is in use. Typically several Mixer configurations are created and saved in the mixer to assign the available faders to the required Logical Machine.

## **Audio Preview under Editor Control**

D/ESAM Audio Mixers are capable of providing Audio previews. A Super Edit program built with E-E Preview will have INIT# 44 enabled. INIT# 44 should be toggled to “MIXER AUD PVW” to enable audio previews through the mixer. Toggle INIT# 44 to “R-VTR AUD PVW” to have the E-E R-VTR switch preview audio.

A Super Edit program built for any video preview switcher will always switch the D/ESAM mixer for audio previewing.

## **Learn/Transfer/Recall under Editor Control**

The D/ESAM Mixers have a flexible register learn, transfer and recall facility. The Super Edit implementation of ESAM-4 protocol makes use of this facility.

Registers can affect the entire Mixer (except Logical / Virtual mapping and fader assignment) or certain subsets of the mixer. As mentioned under the description of INIT# 108, Super Edit controls which subsets (called “banks”) will be affected by the current setting of INIT# 108.



These settings are:

- 0:** Enables EMEM-style (AMEM) learn, transfer and recall to **all “effects” banks** (default).
- 1:** Enables learn/transfer/recall for **only input selection, fader setting and transitions**.
- 2:** Enables learn/transfer/recall for **only the Audio Equalizer**.
- 3:** Enables learn/transfer/recall for **Audio Delay**.
- 4:** Enables learn/transfer/recall for **the Processing Loop**.
- 5:** Enables learn/transfer/recall for **Dynamic Processing**.

Learn/transfer/recall of Audio “AMEMs” is also modified by Super Edit INIT# 91 as mentioned earlier. Dependent upon the model of D/ESAM Mixer, from 40 to 800 registers are available. These may be identified as registers 1 through 4095. The mixer dynamically assigns its available registers until exhausted to the user-supplied register numbers.

Super Edit PEGS dialog supports the number range from 1 through 4095. INIT# 22 (STORE EMEM) and INIT# 23 (AUTO-EMEM ON/OFF) work in the same way as for video switchers. The Learn audio AMEM ([SHIFT] [SPLIT]) dialog only accepts number range of 1 through 255, so for register numbers greater than 255 the register must be learned from the mixer panel.

### PEGS Transitions under Editor Control

Audio PEGS 50xx will trigger an ESAM Mixer transition. The “xx” field is a bit-map for up to four audio channels. The value of 01 would be channel 1 only, 02 is channel 2 only, 03 would be channels 1 and 2, and 04 would be channel 4 only. So, to trigger a transition of channels 1,2 and 4, the audio PEGS command would be 5011 (See table below).

### AUTO-TRANS PEGS COMMANDS

AUDIO CH.	BIT PATTERN				PEGS COMMAND
	1	2	4	8	
ATrans CH1	X				5001
ATrans CH2		X			5002
ATrans CH12	X	X			5003
ATrans CH3			X		5004
ATrans CH13	X		X		5005
ATrans CH23		X	X		5006
ATrans CH123	X	X	X		5007
ATrans CH4				X	5008
ATrans CH14	X			X	5009
ATrans CH24		X		X	5010
ATrans CH124	X	X		X	5011
ATrans CH34			X	X	5012
ATrans CH134	X		X	X	5013
ATrans CH234		X	X	X	5014
ATrans CH1234	X	X	X	X	5015

## **Saving/Restoring Mixer Configurations under Editor Control**

D/ESAM mixers have five or more “configuration” registers that save the ENTIRE mixer state. This is good in that these configurations save the fader-to-Logical machine assignments but are difficult to use since they save everything else as well.

The problem created in their use is that the reason for a configuration recall might be for a major mixer reconfiguration, such as de-assigning a group of four faders from Logical machine “F-VTR” to Logical machine “R-VTR” in order to facilitate a Pre-read edit.

Since the configuration registers contain the entire mixer configuration, RECALLing them at the wrong time would cause confusion in the mixer state. For example, if a configuration register were to have a recall time of 0, then its recall would overwrite all the previously set-up sources, transition rates and preview settings applied during pre-roll for this particular edit or preview.

It is therefore necessary to suppress the sending of the RECALL command by the PEGS dialog for the configuration registers.

The only “safe” time to recall a configuration register is at the time an edit is recalled to the Mark Table (either manually with the Recall key or automatically during an Auto-Assemble).

Therefore, the rules for using configuration registers for ESAM-4 under editor control are:

1. The configuration register must be saved (INIT# 22, “STORE EMEM”, or INIT# 23, “AUTO EMEM ON”) as part of the edit.
2. The configuration register will only be recalled (applied to the state of the Mixer) at the time the edit is recalled.

The Mixer Configuration registers have numbers starting at 9000. It is not recommended that 9000 be used, since this maps to configuration register 0, which is the Mixer’s default configuration.

## **NOTE 4 - Sony Digital Switchers and X-PEGS**

### **PEGS Commands**

Some of the buttons on the M/E and the DSK panel are assigned numeric values. The table below shows these values. The hundreds digit indicates the M/E, with the DSK being indicated as M/E 0.

To select these functions on the Sony switchers, specify **FUNCTION= X** instead of **FUNCTION= V** (VIDEO) when entering the PEGS command. i.e. Select [**PEGS**] and answer the prompts as follows:

REGISTER # ?    Enter any PEGS register 1 through 16, then press [**ENTER**].

FUNCTION= ?    Press [**X**], then [**ENTER**].

COMMAND= ?    Enter the Memory Register (001 through 255 as described above), then press **ENTER**].

TIME=            Enter the offset from the IN point, then press [**ENTER**].

# PEGS command codes

<b>050-057</b>	N/A
<b>058</b>	DSK FTB Transition.
<b>059-067</b>	N/A
<b>150/250/350</b>	Auto Trans Start.
<b>151/251/351</b>	Key1, Mix mode & Auto Trans.
<b>152/252/352</b>	Key2, Mix mode & Auto Trans.
<b>153/253/353</b>	Key1, Key2, Mix mode & Auto Trans.
<b>154/254/354</b>	BKGD, Mix mode & Auto Trans.
<b>155/255/355</b>	Key1, BKGD, Mix mode & Auto Trans.
<b>156/256/356</b>	Key2, BKGD, Mix mode & Auto Trans.
<b>157/257/357</b>	Key1, Key2, BKGD, Mix mode & Auto Trans.
<b>158/258/358</b>	DSK FTB Transition (Same as 058)
<b>159/259/359</b>	Pst Pgm Mix On & Auto Trans

<b>160/260/360</b>	Pst Pgm Mix Off
<b>161/261/361</b>	Key1, Wipe mode & Auto Trans.
<b>162/262/362</b>	Key2, Wipe mode & Auto Trans.
<b>163/263/363</b>	Key1, Key2, Wipe mode & Auto Trans.
<b>164/264/364</b>	BKGD, Wipe mode & Auto Trans.
<b>165/265/365</b>	Key1, BKGD, Wipe mode & Auto Trans.
<b>166/266/366</b>	Key2, BKGD, Wipe mode & Auto Trans.
<b>167/267/367</b>	Key1, Key2, BKGD, Wipe mode & Auto Trans.

**Note:** To operate the Preset Black Mix Special Transition mode (which fades the Program source to black then fades the Preset source from black), two PEGS are required: Use a PEG 159/259/359 to initiate the Fade to Black (of the Program source) and use a PEG 150/250/350 to initiate the Fade From Black of the Preset source.

## **NOTE 5 - Profile "Sync Check"**

There have been sporadic reports of match frame problems traced to improper synchronization of a Profile source, the Profile Timeline, or the Profile record channel. This has now been addressed by adding a "Sync Check" feature for Profile. The sync check for the Profile NATIVE recorder is available only in Full-View Record ON mode. This sync check determines if the recorder channel is correctly synchronized at about 15 frames into the edit and if not found to be in sync, the message **"PROFILE REC NON-SYNC"** is displayed and the edit is aborted. This check is enabled by **INIT # 55, "REC ABORT ON/OFF"**.

If this INIT item is enabled, and the R-VTR is Profile Native, and Full-View Record (INIT #169) is ON, then the record channel sync check is made as described above, regardless of the setting of INIT# 156, "AUTO HANDLES ON/OFF".

The setting of the source QC value determines the minimum disk pre-roll. Setting the QC to "0" disables checks and allows any disk preroll to be used. A QC setting of "1" allows a minimum of 20 frames disk preroll. A QC of "1" is the RECOMMENDED QC setting for Native sources. QC settings of "2" or greater require longer disk pre-rolls, however not much is gained since it is our experience that the Profile disk is either in sync or not in sync, and once found to be in sync does not subsequently lose sync.

Source sync checks are disabled if INIT# 158 "SOURCE PREROLL ON/OFF" is set to OFF. Source sync checks are also disabled for programmed motion Native sources.