



TECH NOTE

Super Edit™ Vers. 8.1D, 8.3D and later

ROSS SYNERGY SERIES Digital Production Switchers

This document covers Super Edit features and parameters pertaining to the Ross Synergy Series Digital Switchers. Please consult the Super Edit operations manual for more detailed information on Super Edit functions and the Ross Synergy Switcher Operations manual for more detailed information on the switcher.

Interface

Switcher-To-Editor Connections

The Editor controls the Synergy Switcher through a serial RS422 cable with a 9-pin D connector from the VIDEO CTL Port on the rear of the Editor to the editor port on the back of the switcher electronics frame labeled EDITOR.

Switcher Setup For Editor Control

1. On the Menu Display of the Switcher's Control Panel, press the **[HOME]** button.
2. Press **[MORE]** until the selection **Setup** appears. **Select Setup.**
3. From the Setup screen **select Installation.**
4. From the Installation screen **select Communications.**
5. From the Communications screen **select Type.**
Turn the Soft Knob corresponding to **Com port:** to **EDITOR (ED)**
Turn the Soft Knob corresponding to **Device:** to **EDITOR**
6. From the Communications screen **select Editor Protocol.**
Ensure the Soft Knob corresponding to **Com port:** is **EDITOR (ED)**
Turn the Soft Knob corresponding to **Device:** to **GVG4000**
7. From the Communications screen **select Com Settings.**
Ensure the Soft Knob corresponding to **Com port:** is **EDITOR (ED)**
Turn the Soft Knob corresponding to **Baud (fixed):** to **38400**
Turn the Soft Knob corresponding to **Parity (fixed):** to **ODD**
8. From the Communications screen **select Com Type.**
Ensure the Soft Knob corresponding to **Com port:** is **EDITOR (ED)**
Turn the Soft Knob corresponding to **Type:** to **RS-422**

Editor Enable/Disable

On the switcher panel, in the GLOBAL MEMORY SYSTEM section, toggle the button marked **EDITOR** to enable and disable editor control. When lit, editor control of the Synergy Switcher is enabled. Once enabled, press **[SHIFT][RESET]** on the editor keyboard to initiate communications with the switcher.

Switcher Enable/Disable

Crosspoint control from the editor over the Synergy Switcher can be enabled or disabled by pressing **[ALT][VIDEO]** at the editor. While crosspoint control is disabled, PEGS commands and Memory transfers are still enabled. When crosspoint control is disabled, VSWR-OFF is displayed on the status line of the edit screen.

Crosspoint Assignment

The Synergy Switcher begins crosspoint assignments with **one (1)**. The user may assign MLE re-entry crosspoints by entering **49** for **MLE 1**, **50** for **MLE 2**, and **51** for **MLE 3** (switcher model dependent).

Transition, Memory, and GPI Trigger Delay Adjustments

The following INIT items in Super Edit are pre-set, and should not require changing. Should the need arise, Transition Delay Adjustments for the Synergy Switcher are made in the following Super Edit INIT page items, and are stored with a configuration file when created:

| | |
|--------------------|-----------|
| Transition Start = | INIT # 64 |
| GPI = | INIT # 66 |
| Memory trigger = | INIT # 67 |
| X-PEGS = | INIT # 72 |

Editor/Switcher Control Operations

Shift/Reset - Allstop Sequence

The ALLSTOP Sequence is a string of commands sent to wake up the Synergy Switcher and/or put it into a fixed known state. This occurs with a **[SHIFT][RESET]**, anytime **[SPACE BAR]** (Allstop) is pressed at the end of an edit, and after completion of data initialization through the INIT Pages or Configuration dialogs. Depending on previous conditions, the result of sending this string of commands is one of the following:

- Select the current MLE re-entry pushbutton on the PGM bus.
- On the current MLE, select the crosspoint assigned to the selected VTR on the Edit Screen.
- On the MLE, select background as the transition mode and the Mix pushbutton as the transition type. Any titles on-air are taken off-air (MLE only).

***NOTE:** These commands will have no effect on the Down Stream Keyer portion of the Control Panel. DSK1 and DSK2 remain undisturbed after an Allstop or [SHIFT][RESET].*

Program Crosspoint Selection

When the MLE to be controlled by the editor is assigned in INIT # 39 (EFFECTS ADDR) the Program Bus MLE selector (MLE 1, MLE 2, or MLE 3) is selected accordingly. To override this selection to allow for manual control of the switcher output, set INIT #42 of the editor to SWR REENTRY OFF.

AUX Bus Previewing

Editor - AUX Bus Selection

There are 12 AUX Buses available for use as a preview switcher. Selection is made through INIT # 73 of the editor. Choices are as follows:

- 0 = Disable previewing on the AUX Bus and enable default preview mode
(E-E or Performer / 8465 / 8466 previewing)
- 1-12 = AUX Bus to be controlled

Editor – R-VTR Selection

Assigning the desired R-VTR crosspoint in the Super Edit Assignment Page, selects the R-VTR crosspoint to be used during AUX BUS previewing.

AUX Bus & E-E / GV Performer / 8465-8466 Previewing

When enabled, previewing video on the AUX Bus of the Synergy Switcher replaces the Super Edit type of previewing. Audio previewing continues to take place at the Audio Mixer through the interface built into the program (e.g., AMX-170, Graham-Patten, Zaxcom, Yamaha, etc.)

Because the user can disable previewing on the AUX Bus, subsequent previews would be handled by whichever method is built into the program. Super Edit with E-E previewing and GV Performer and 8465/8466 Previewing are discussed below.

Super Edit & E-E Previewing

E-E video previewing is disabled when previewing on the AUX Bus. Thus, the output of the R-VTR remains locked to its off-tape video during green key (source) selection on the Editor.

When AUX Bus previewing is disabled, green key selection forces the R-VTR into the E-E preview mode and the output of the Synergy Switcher can be seen on the Line monitor. When AUX Bus previewing is enabled, the user must select Audio Mixer preview in INIT # 44 of the INIT Page #2 dialog to hear the audio switch during preview.

Preview Pre-Selection

Changing the record machine to a different source machine is accomplished either on the Assignment Page or with the **SWAP** function of the Editor ([SHIFT][A-VTR]). The crosspoint selection and AUX Bus Previewing will follow the SWAP automatically.

AUX Bus Control Green Key Selection

Selecting the R-VTR (green key) on the Editor switches the AUX Bus to the crosspoint assigned to that VTR. Selecting any other green key except the R-VTR switches the AUX Bus to the PGM OUT button. The actual crosspoint associated with any given green key is switched on the currently selected MLE.

Programming Auto-Transitions Via PEGS

X-PEGS

To specify transitions on the Synergy Switcher other than those made with the standard editor transition dialog, specify **FUNCTION = X** in the PEGS dialog. The buttons on the Synergy Switcher MLE and Downstream Keyer panels are assigned numeric values. These values are used in combinations at the **COMMAND = ?** prompt of the PEGS dialog to select areas and/or functions of the Video Switcher when programming an Auto-Transition via PEGS.

The first digit of the 3-digit PEGS command code designates the area of the Video Switcher which is to be used in the Auto-Transition. The values and corresponding areas are listed below.

- 0 = PGM PST / DSK**
- 1 = MLE 1**
- 2 = MLE 2**
- 3 = MLE 3**
- 4 = PGM PST / DSK**

The second digit selects the type of Auto-Transition. The values and corresponding types listed in below.

- 50 = MIX**
- 60 = WIPE**

The third digit selects the source(s) of the transition (Key, Background, etc.). The values and corresponding sources are listed below.

- 1 = KEY 1 or DSK 1**
- 2 = KEY 2 or DSK 2**
- 3 = KEY 1 & 2**
- 4 = BKGD**
- 5 = BKGD & KEY 1**
- 6 = BKGD & KEY 2**
- 7 = BKGD & KEY 1 & KEY 2**
- 8 = PST BLK or DS FTB**
- 9 = DS FFB**

The following are examples of how the PEGS Command codes may be used.

- 153 = MLE 1, MIX, KEY 1 & KEY 2
- 265 = MLE 2, WIPE, BKGD & KEY 1

Note that PEGS Commands 50, 150, 250, 350, and 450 push the Autotrans button only, and select neither Mix nor Wipe. Note also that 60, 160, 260, 360, and 460 are not functional.

Fade-To-Black & Fade-From-Black

For Downstream **Fade TO Black = 58**

For Downstream **Fade FROM Black = 59**

MLE PST BLACK

158 = MLE 1 PST BLACK

258 = MLE 2 PST BLACK

358 = MLE 3 PST BLACK

458 = PGM PST BLACK

Although only PGM PST has a button labeled PST BLK, the feature is functional on all MLEs.

Key Priority

Key Priority is now available through the PEGS dialogue. The PEGS number is X59, where X indicates either MLE 1, MLE 2, or MLE 3 will select the **[KEY OVER]** button with an Autotrans. MIX and WIPE commands are not supported for this function.

Recalling Memory Registers without EFFECTS DISSOLVE via PEGS

To recall Memory triggers without Effects Dissolve on the Synergy Switcher, specify **FUNCTION = V ([VIDEO])** in the PEGS dialog. At the **COMMAND = ?** prompt, specify the Memory register. These registers are identified according to the area of the Video Switcher (similar to Auto-Transitions).

The first digit of the 3-digit PEGS command identifies the area of the Video Switcher. The second and third digits specify the register (00 through 49). There are 10 Memory registers assigned to each of 5 Memory banks. The values and corresponding areas of the Video Switcher are:

- 0 = PGM/PST BUS & DSK**
- 1 = MLE 1**
- 2 = MLE 2**
- 3 = MLE 3**
- 4 = PGM/PST BUS & DSK**

Examples of PEGS command codes for MEMORY triggers:

105 - triggers the MLE 1 portion of Memory 05 (Bank 0 register 5)

210 - triggers the MLE 2 portion of MEMORY 10 (Bank 1 register 0)

449 - triggers the PGM PST / DSK portion of MEMORY 49 (Bank 4 register 9)

Recalling Memory Registers with EFFECTS DISSOLVE via PEGS

To recall a Memory register with EFFECTS DISSOLVE, regardless of the current switcher state, add 2000 to the PEGS COMMAND.

Example: To recall Memory Register 131 with Effects Dissolve, enter **2131** at the COMMAND= ? Prompt in PEGS.

Recalling Memory Registers Defined by Synergy via PEGS

To recall a Memory register with EFFECTS DISSOLVE controlled by the current switcher state, add 4000 to the PEGS COMMAND. The ON/OFF status of the EFFECTS DISSOLVE button will determine whether it is applied to the Memory Recall.

Example: To recall Memory Register 131 with Effects Dissolve determined by the ON/OFF status of the EFFECTS DISSOLVE button, enter **4131** at the COMMAND= ? Prompt in PEGS.

Controlling GLOBAL MEMORY Levels

Super Edit allows the user to directly control which Global Memory Levels (MLEs) are enabled on the switcher panel.

This feature is accessed via INIT # 101 in Super Edit, or as a shortcut, [SHIFT][VIDEO] on the K2 keyboard and [SHIFT][U4] on the K5 keyboard.

When activated, a menu is displayed that shows the choices of Memory Levels (MLE) and their current state, either ON or OFF. Choosing one of these will toggle its state and the action will be immediately reflected on the switcher control panel. As a shortcut, there are two additional choices that allow the user to turn ALL MLEs ON or OFF at the same time.

Note that the commands to turn the MLE Levels ON and OFF are sent to the switcher during the time the menu is displayed, and whenever a [SHIFT][RESET] is performed. They are not sent during or before an edit command. This enables the user to over-ride them manually if desired, but it must be remembered that if the buttons are changed manually on the control panel, Super Edit will not over-ride them unless a [SHIFT][RESET] is performed first. Also note that Super Edit will only ask for Memory data according to its own record of Enabled MLE Levels, regardless of what is enabled on the switcher panel.

This is the menu that is displayed for INIT #101:

| | | |
|-----------|----------------|------------|
| 00 | PGM/PST | OFF |
| 01 | MLE 1 | OFF |
| 02 | MLE 2 | OFF |
| 03 | MLE 3 | OFF |
| 04 | DSK | OFF |
| 05 | ENABLE | ALL |
| 06 | DISABLE | ALL |

In order for this feature to work properly, you must enter a PEG with an Effects Level of 12, such as 1201 for register 1.

Custom Control

There are 32 Custom Control buttons on the Synergy Switcher. To recall the conditions stored in these registers, specify **FUNCTION = V ([VIDEO])** in the PEGS dialog. At the **COMMAND = ?** prompt, specify the Custom Control register number 1-32, and add 50.

Examples: **CUSTOM 1 = 51**
CUSTOM 10 = 60
CUSTOM 32 = 82

Configuration File Handling

Saving a Super Edit setup to a Configuration file preserves the current AUX Bus selection. When the saved selection is zero, previewing takes place through the default method in the Super Edit program (i.e., E-E or Performer / 8465 / 8466).

With any other selection (1-12), previewing takes place on the AUX Bus. As with other versions of Super Edit, the Configuration file also saves the start time adjustments associated with the PEGS registers and Dissolves and Wipes.