



***TECH NOTE***  
***Super Edit™ Version 7.1D and later***

## **Abekas 8100/8150 Switchers**

### **Introduction**

This document describes the interface between Super Edit and the Abekas A8100 and A8150 switchers:

Detailed operations instructions for Super Edit are given in the Super Edit Operator's Guide. The Abekas Switcher Operations Manual provides excellent information for the switcher. This Setup Guide discusses only those features which are unique to the Super Edit/Abekas switcher interface.

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### **Connection**

- a. Connect an RS422 cable from the designated switcher port on the editor to one of the Serial ports on the switcher.

b. Set up the selected port on the switcher as follows:  
In the Engineering Menu select “Communications” then set the communications parameters as follows:

Protocol	Baud	Parity
GVG	38400	Odd

### **Crosspoint Selection**

Crosspoint selections are made as described in the Operator’s Guide. In the Abekas switcher Black is normally crosspoint 1, and crosspoint 2 is input 1. On the Super Edit Assignment page either ‘0’ or ‘1’ will select Black.

### **BVB and VBV Previews**

For non-Aux bus Previews Super Edit uses the DSK as the source of the Black for a BVB or VBV Preview. Because this is a toggle on/off transition, the user must ensure that the DSK FTB is Off prior to the start of a Preview operation.

### **Aux Bus Previewing and Preselector**

Aux bus previews can be accomplished on the Abekas switchers. Operation is similar to that described in the Super Edit Operator’s Guide.

**In Super Edit**, to enable Aux bus previewing, access Initialization Page #3.

#### INIT #73. PVW AUX BUS :

1 thru 5 - Enables previewing on the selected Aux bus. Aux bus 5 is the default and is recommended.

0 - Disables previewing on the Aux bus. Previewing will be done on the alternate preview device (i.e. E-E, 8466, Performer, etc. depending on the Super Edit software configuration).

#### INIT #74. PGM OUT XPT:

When this feature is enabled the selected Aux bus behaves as a video only preview switcher (i.e. switching between the R-VTR crosspoint and the PGM OUT crosspoint. INIT page item #74 in Super Edit allows the user to enter a PGM OUT crosspoint selection. Set this to the Aux bus crosspoint number assigned to Program Out. The default crosspoint is 23.

The SWAP VTR feature of Super Edit will interact with the Aux bus as a preview preselector. The R-VTR crosspoint assignment on the Aux bus will follow any changes made with the SWAP function.

### **In the switcher: assign the same Aux bus for preview control**

Select “Communications” from the ENGINEERING MENU, and set “Preview Cmds Routed From” to the same Aux bus as designated in Init #73 on Super Edit (Aux bus 5 recommended).

### **Learn Snapshot Effects to A8100 / A8150 Memory from Super Edit**

The Learn EMEM™ function with the Abekas switchers saves Snapshot Effects (SAVE KEYFRAME). That is: the user may tell the Abekas Switcher to save a Snapshot Effect by pressing [SHIFT][L] on the editor keyboard. The user is then prompted for the register number to learn:

LEARN EMEM *nnn* ?

*nnn* can be any number from 0 through 24. Then press [ENTER] to accept the selection.

### **Snapshot Effects Recall from A8100 / A8150 Memory**

The Snapshot Effects Recall function with the Abekas switcher recalls the selected Snapshot Effect (RECALL KEYFRAME). Super Edit accesses effects registers 0 through 24. To specify the Recall function, first select PEGS entry by pressing the [PEGS] key. Answer the prompts as follows:

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

FUNCTION= ?      Press [VIDEO], then [ENTER]

COMMAND= ?      Enter the Effects Register (0 through 24 as described above), then  
press [ENTER]

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

## **STORE Snapshot Effects to A8100 / A8150 Hard Disk from Super Edit** *(Abekas V3.1 software required)*

A unique feature of the Abekas interface allows Super Edit to store selected Snapshot Effects to the switcher's Hard Disk when an event is put into the EDL. Subsequently recalling that event from the EDL to the Mark Table automatically transfers the data from the switcher's Hard Disk back into the switcher's Effects Register. Only the register number (EMEM nnn) is stored in the EDL. Otherwise, the large amount of data from the Abekas switcher would quickly fill up the EDL in V7.

Before the switcher data can be stored on the switcher's Hard Disk, it must first be saved into the switcher memory by pressing [SHIFT][L] (see Learn EMEM earlier in this document) at the editor keyboard or by entering the Snapshot number on the switchers numeric keypad and pressing [SAVE KEYFRAME] on the switcher.

The operation is the same as described in the Super Edit operations manual for INIT 22 - STORE EMEM and INIT 23 - AUTO-EMEM.

***Example:** Saving and restoring switcher data to/from Hard Disk using switcher Effects Register 7 (any free register may be used).*

### **Saving Snapshot to the switcher Hard Disk**

1. In Super Edit, select INIT 23 and turn AUTO-EMEM ON.
2. Set up the switcher as desired.
3. Save the Snapshot in Effects Register 7:

In the switcher, press [7], then [SAVE KEYFRAME]  
or

In Super Edit, simultaneously press [SHIFT] [L] and specify register '7'.

4. Select [PEGS] and enter the EMEM PEG as follows:

REGISTER #? 1 (any free register will do)  
FUNCTION=? V (press the [VIDEO] key)  
COMMAND=? 007 (this is the number of the switcher's Effects Register)  
TIME= 0 (Enter the offset from the RECORD IN point, then press [ENTER].  
A negative time not to exceed the pre-roll time may also be used)

The PEGS register will now show:

01 V 007 00:00:00

5. The status line on the Super Edit display should show that “ PEGS” and “AUTO-EMEM” are enabled.
6. Perform the edit.

The switcher data is automatically stored on the switcher’s hard disk and the EDL indicates “EMEM 007”.

### **Recalling a Setup from the Switcher’s Hard Disk.**

1. In Super Edit, use the UP and DOWN arrow keys to select the EDL event that has EMEM 007.
2. Press [RECAL] to recall that event into the Mark Table.

The switcher setup is automatically moved from the switcher’s Hard Disk into the switcher’s Effects Memory 7.

### **PEGS Commands - Auto Trans.**

Some of the buttons on the switcher panel are assigned numeric values. Table 1 and Table 2 below show these values. The hundreds digit indicates either the PGM/PST buses (0 or 2) or M/E 1 (1). In all cases, the Auto Trans. function is started when the PEGS function is executed.

To select these functions on the Abekas switchers, select PEGS in Super Edit and answer the prompts as follows:

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

FUNCTION= ?    Press [VIDEO] then [ENTER].

COMMAND= ?    Enter the Command code from the table below then press [ENTER].

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

The following may be helpful in remembering the codes:

<u>Hundreds digit</u>	=	<u>Bus</u>
0 or 2	=	PGM/PST
1	=	M/E 1

<u>Tens digit</u>	=	<u>Function</u>
5	=	Mix
6	=	Wipe

Units Digit

<u>On M/E 1</u>
Key1 = 1
Key2 = 2
Bkgd = 4

Multiple functions are selected by adding the numbers.  
For example, to select both Key1 and Key2, use the number 3.

<u>On PGM/PST</u>
DSK = 1
PGM/PST = 4.

For example, to select both, use the number 5.

A table of PEGS command codes for PGM/PST is shown below.

Table 1 - PGM/PST Codes

<i>Code</i>	<i>Function</i>
<b>050</b>	Auto Trans, Mix mode
<b>051</b>	DSK, Mix mode & Auto Trans
<b>052</b>	N/A.
<b>053</b>	N/A.
<b>054</b>	PGM/PST, Mix mode & Auto Trans
<b>055</b>	DSK, PGM/PST, Mix mode & Auto Trans
<b>056</b>	N/A
<b>057</b>	N/A.
<b>058</b>	FTB Toggle
<b>059</b>	N/A
<b>060</b>	Auto Trans, Wipe mode
<b>061</b>	DSK, Wipe mode & Auto Trans
<b>062</b>	N/A.
<b>063</b>	N/A.
<b>064</b>	PGM/PST, Wipe mode & Auto Trans
<b>065</b>	DSK, PGM/PST, Wipe mode & Auto Trans
<b>066</b>	N/A
<b>067</b>	N/A.
<b>068</b>	FTB Toggle
<b>069</b>	N/A.

A table of PEGS command codes for M/E 1 is shown below.

Table 2 - M/E 1 Codes

<i>Code</i>	<i>Function</i>
<b>150</b>	Auto Trans, Mix mode
<b>151</b>	Key1, Mix mode & Auto Trans
<b>152</b>	Key2, Mix mode & Auto Trans
<b>153</b>	Key1, Key2, Mix mode & Auto Trans
<b>154</b>	Bkgd, Mix mode & Auto Trans
<b>155</b>	Key1, Bkgd, Mix mode & Auto Trans
<b>156</b>	Bkgd, Key2, Mix mode & Auto Trans
<b>157</b>	Key1, Key2, Bkgd, Mix mode & Auto Trans
<b>158</b>	N/A
<b>159</b>	N/A
<b>160</b>	Auto Trans, Wipe mode
<b>161</b>	Key1, Wipe mode & Auto Trans
<b>162</b>	Key2, Wipe mode & Auto Trans
<b>163</b>	Key1, Key2, Wipe mode & Auto Trans
<b>164</b>	Bkgd, Wipe mode & Auto Trans
<b>165</b>	Key1, Bkgd, Wipe mode & Auto Trans
<b>166</b>	Bkgd, Key2, Wipe mode & Auto Trans
<b>167</b>	Key1, Key2, Bkgd, Wipe mode & Auto Trans
<b>168</b>	N/A
<b>169</b>	N/A.

## PEGS Commands - Aux Bus Crosspoints

Crosspoints on Aux busses 1 thru 5 may be selected through an extended function of PEGS. The hundreds digit specifies the Aux bus and the tens and units digits specify the crosspoint. That is; 100 = Aux bus 1, 200 = Aux bus 2, etc. For example, 307 is crosspoint 7 on Aux bus 3.

To select the Aux busses, 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 crosspoint ( as described above), then press [ENTER].

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

## Other Init Page Options

There are two other options on the Super Edit INIT Page that directly affect the switcher operation:

### INIT #39 - SWITCHER BANK (0,2, or 1)

This option selects which bank the editor controls for both manual 'Green Key' operation and for previews.

0 or 2 - Selects the PGM/PST bus

1 - Selects M/E 1.

### INIT #42 - SWR RE-ENTRY (On or Off)

When On, this allows Super Edit to automatically select M/E re-entry on the PGM/PST bus so that automatic crosspoint selections on M/E 1 will be seen on the Program Output during previews. SHIFT/RESET will also select the re-entry.

When Off, Super Edit never selects the M/E re-entry on the PGM/PST bus.

## **Timeline Control**

In addition to normal switcher type control, Super Edit can control the Timeline effects on the Abekas switcher similar to the way it controls a VTR. Connect the cable as described below and assign the timeline to a port just as you would a VTR. Pressing the Play, Stop, Rewind, Fast Forward keys and the jogger now controls the timeline just like a VTR. Select the timeline source for an edit, or slave it to other VTR sources for automatic control.

### Connection

- a. Connect an RS422 cable from any machine control port on the editor to one of the Serial ports on the switcher.
- b. Set up that serial port on the switcher as follows:

In the Engineering Menu select “Communications” then set the communications parameters as follows:

Protocol	Baud	Parity
SMPTE	38400	Odd

### VTR Assignment on Super Edit

Assign the timeline in the same way as a VTR (Shift/Assign) on most keyboards:

Reel - Any 6 character Reel ID (i.e. TIMELN)

Port -	Any available machine control port.
Model -	Select any Abekas Disk or Ampex VTR protocol.
QC -	3
VIDX -	0
AUDX -	0
PSLX -	0