



## Snell & Wilcox Magic DaVE

### **Introduction**

This describes the preliminary interface between Super Edit and the Magic DaVE. Detailed operating instructions for Super Edit are given in the Super Edit Operator's Guide. There is also considerable information given in the Magic DaVE User Manual. This Setup Guide discusses only those features that are unique to the Magic DaVE and its interaction with the VPE editor.

### **General**

The Magic DaVE is controlled via two separate editor ports; one for the switcher and one for the DVE. Super Edit controls DaVE sequences as if they were on a 24 hour videotape, i.e. they can be played, shuttled, jogged, etc. like a VTR.

The following items are discussed in the order given:

- Connection
- Settings
- Cross-point Selection
- Wipes and DVE Moves
- Mark Table Transition Duration
- Learn E-MEM
- E-MEM Transfers
- PEGS Commands
- DVE Control

## Connection

Connect an RS-422 cable from the VIDEO port on the editor to the "SWR" port on DaVE. Also connect an RS-422 cable from an unused machine control port on the editor to the "VTR" port on DaVE.

## Settings

Set the editor ports, both the switcher and the machine control ports, to **38.4K and ODD parity**, which is the default. DaVE defaults to these settings as well.

Assign the VTR port connected to DaVE to a green key on the Super Edit assignment page. Use the protocol **MAGDAV** for the Model, and set the cross-points appropriately.

Select Setup / Editor on the DaVE panel menu and make the following recommended selections. Additional information can be found in the Magic DaVE User Manual:

VTR SEQ OFFSET:                    1  
Sets the point within each hour of timecode that the selected DaVE sequence will begin.

VTR TC DELAY:                    0  
This setting should provide frame accurate editing of sequences. If DaVE is consistently late, enter a more negative number, or if early, a more positive one.

SW'R CACHE OFFSET:            100  
Controls the beginning wipe number at which DaVE will select a sequence from the sequence cache rather than a wipe. The valid range is 0-100. If you select a number lower than 100, you will lose the ability to do the corresponding wipes.

DVE:                                    KEY 2  
This associates the DVE with GVG Model 100 KEY 2 commands and the DSK with GVG Model 100 KEY 1 commands. This is the default, but can be changed.

SW'R:                                  GENERIC  
This tells DaVE you are not controlling it with a Sony Editor.

VTR:                                    ON  
This enables VTR control of the Magic DaVE DVE from the editor.

## Cross-point Selection

Cross-point selection on the Magic DaVE is similar to a GVG Model 100 switcher and is made as described in the Super Edit Operator's Guide. Magic DaVE has the cross-point mapping shown in the table below. Use this as a guide when entering cross-points on the VPE assignment page.

Note any cross-point number greater than 9 will select BLACK with one exception; Super Edit V8 software will allow a DMEM (snapshot) recall to be assigned to a green key by adding 100 to the DMEM number. For example to call up DMEM register 5 whenever you select the D-VTR, enter 105 into the Video Cross-point slot for the D-VTR on the assignment page.

Cross-point mapping for the 4 input DaVE

Number	Function
0	Program Bus Cross-point BLACK
1	Program Bus Cross-point 1
2	Program Bus Cross-point 2
3	Program Bus Cross-point 3
4	Program Bus Cross-point 4
5	Program Bus Cross-point BLACK
6	Program Bus Cross-point BLACK
7	Program Bus Cross-point BARS
8	Program Bus Cross-point PATTERN
9	Program Bus Cross-point MATTE
10 - **	Program Bus Cross-point BLACK

## Wipes and DVE Sequences

Magic DaVE can perform wipe patterns 0 through 50, or 0 through 99 with an option card. Patterns 0 through 39 generally conform to the SMPTE specification. When entering wipe numbers in Super Edit, adding 100 to the wipe number will cause a reverse wipe of that pattern.

Wipe pattern numbers 201 through 224 allow the editor to control DaVE by calling up the corresponding DVE sequence instead of a wipe pattern. For example, to recall and run sequence #3 from DaVE, set up a wipe transition in Super Edit's mark table using a wipe code of 203. This will recall and run sequence #3. Adding an additional 100 to the wipe number will cause a reverse sequence. For example, a command of 305 will recall and run sequence # 5 in reverse.

Note that if the corresponding 200 series DaVE sequence is empty, a wipe of that number minus 200 will be performed instead. For example, if you used a wipe number of 212, and DaVE sequence #12 is empty, DaVE will perform a #12 wipe. A table of the valid wipe codes is shown below. The available wipe patterns can be found in section F of the DaVE User Manual.

Code	Function
0-99	WIPE 0 through 99
100-199	Reverse WIPE 0 through 99
201-224	Sequence # 1 through #24
301-324	Reverse Sequence # 1 through #24

### Mark Table Transition Duration

Super Edit can only perform a maximum transition rate of 255 frames. If your DaVE sequence is longer than 255 frames (8.5 seconds), you should enter a transition rate of 0 in the Super Edit dialog. A transition rate of 0 tells Super Edit not to send a duration command and therefore to use the programmed duration for that sequence.

### Learn/Recall E-MEM (DMEM)

The Learn/Recall DMEM function with Magic DaVE is similar to the operation described in the Super Edit Operator’s Guide for Learn/Recall E-MEM. That is; the user may tell the switcher to Learn a memory register by pressing **[SHIFT][L]**. The user is then prompted for the register number to learn:

LEARN EMEM *nnn* ?

*nnn* can be any number from 000 through 015. The hundreds digit is the M/E. DaVE only has 1 M/E so any number from 0 to 255 can be entered except for the number 4. So, for example, to learn a DMEM / panel status into register 10 of DaVE, enter “010”. Then press **[ENTER]** to accept the selection.

### E-MEM (DMEM) Transfers

The E-MEM transfer function with Magic DaVE is similar to the operation described in the Super Edit Operator’s Guide. DaVE provides 16 Memory System Registers, numbered 0 through 15. However, DaVE does not transfer all of the data in a DMEM to the editor for storage in the EDL. Most of the data is stored on the DaVE in files located in the folder GVG-SAVE. Therefore, you must have these files available when you recall a DMEM from an EDL.

To specify DMEM transfer Commands, first select **PEGS** entry by pressing the **[PEGS]** or **[SHIFT 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 Memory Register (0 through 15), then press **[ENTER]**.

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

This procedure makes the command available to Super Edit. The actual transfer of data is initiated in the same manner that GVG Model 100 switchers transfer EMEM data, such as the execution of a PEG during an edit.

### **PEGS Commands**

Some of the buttons on the Magic DaVE panel are assigned numeric values and can be accessed from the editor. The table below shows these values. The hundreds digit indicates the M/E, which can be anything except 4. M/E 4 is used to address the DVE.

To enter a command, select **[PEGS]** 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 desired command code, then press **[ENTER]**.

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

A table of implemented PEGS command codes is shown below.

Code	Function
0-15	DMEM Recall
20	Auto Transition
21	DSK Mix
22	Fade to Black
50	MIX / Auto Transition
51	MIX / DVE Auto Transition
52	MIX / DSK Auto Transition
53	MIX / DVE / DSK Auto Transition
54	MIX / BKGD Auto Transition
55	MIX / BKGD / DVE Auto Transition
56	MIX / BKGD / DSK Auto Transition
57	MIX / BKGD / DVE / DSK Auto Transition
60	WIPE / Auto Transition
61	WIPE / DVE Auto Transition
62	WIPE / DSK Auto Transition
63	WIPE / DVE / DSK Auto Transition
64	WIPE / BKGD Auto Transition
65	WIPE / BKGD / DVE Auto Transition
66	WIPE / BKGD / DSK Auto Transition
67	WIPE / BKGD / DVE / DSK Auto Transition
68-99	Set WIPE (No Auto Transition is performed)
100-199	Set WIPE Reverse (No Auto Transition is performed)
201-224	Set Seq # (No Auto Transition is performed)
301-324	Set Seq # Reverse (No Auto Transition is performed)

## DVE Control

In addition to PEGS control, Super Edit can also control DaVE sequences as if they were on a 24 hour videotape, i.e. they can be played, shuttled, jogged, etc. like a VTR. Each hour of this imaginary tape corresponds to a different sequence, for a total of 24 sequences. You can play back different portions of the “tape” in order to run your various programmed DVE sequences. Each sequence starts 1 minute into the hour (by default, but changeable via the DaVE panel menu), so for example, sequence 1 starts at 00:01:00:00, which allows time for a pre-roll. For more information, please see Section B of the Magic DaVE Users Manual.

To control DaVE as a VTR, assign the VTR port connected to DaVE to a green key on the Super Edit assignment page. Use the protocol **MAGDAV** for the Model, and set the cross-points appropriately. You can control DaVE with the usual manual commands such as **PLAY**, **STOP**, **FFWD**, **REW**, **JOG**, etc. You can **SLAVE** it to other sources such as your foreground, background and key source and roll them all together at the same time in an edit. You may also use PEGS to roll DaVE at speeds other than 100% play.

If you are only rolling the DaVE, you can reduce the **PREROLL** to as little as 2 frames, but if you are rolling other sources, you will have to set the **PREROLL** to a value that will synchronize all sources.

Note that pressing **REW** or **FFWD** does **NOT** place you at the beginning or end of a sequence. DaVE will continue to **REW** or **FFWD** (and wrap at 24 hours) until you stop it. This is necessary to allow you to access all 24 sequences.

Note also when rolling DaVE as a source VTR in an edit, you should not use PEGS transition commands. All **BKGD**, **DVE** and **DSK** transition commands should be part of your learned sequence. In addition, you should not involve DaVE in a mark table transition such as a **CUT**, **WIPE** or **DISS** with other sources. Again, these should already be part of the DaVE sequence you are rolling. Doing so will cause glitches in the picture as DaVE tries it's best to do what you ask.