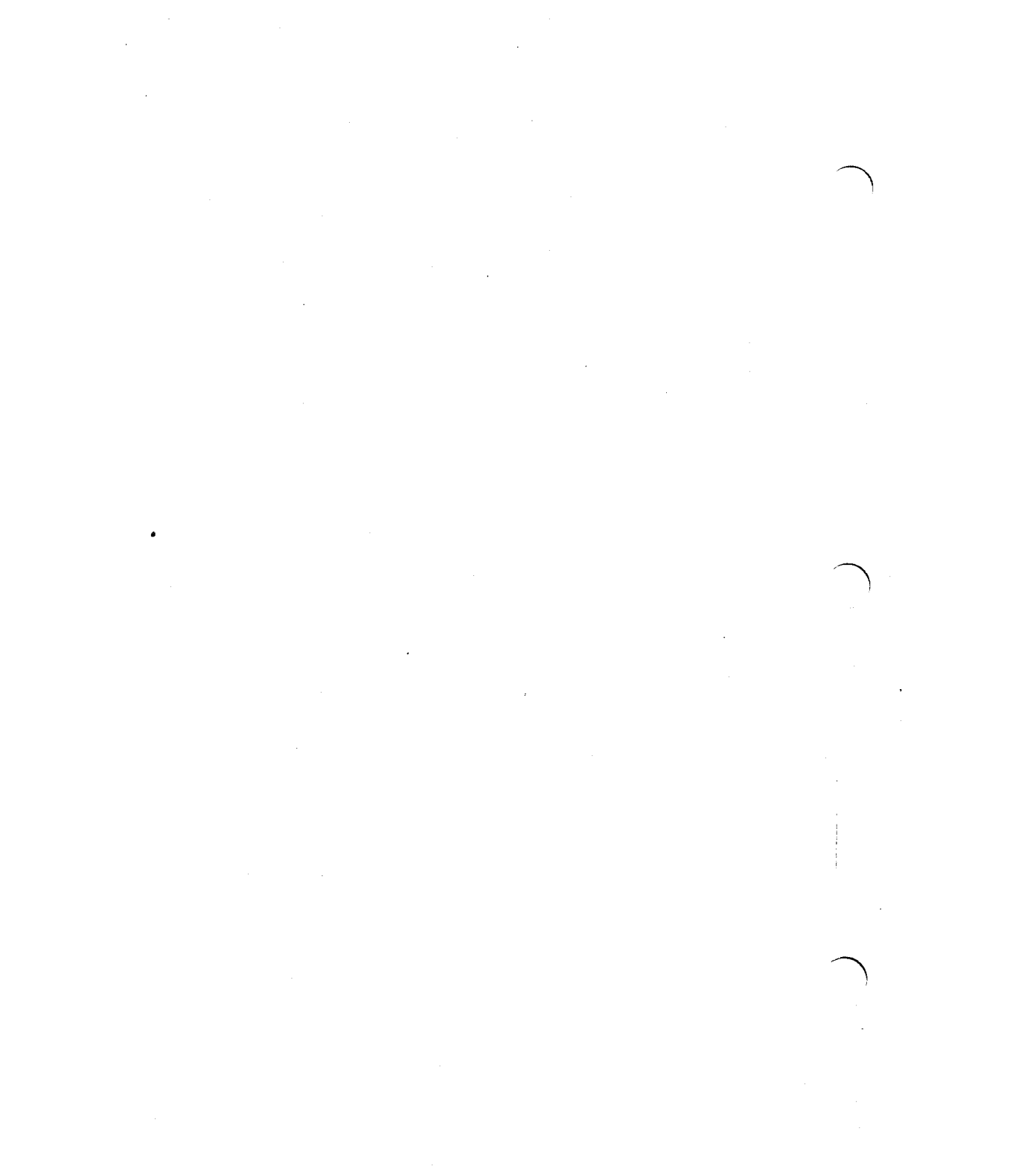


**AVL GENESIS**

**PROCALL-5**

**USER'S GUIDE**

**Audio Visual Laboratories, Inc.**



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## CHAPTER 1

### INTRODUCTION

#### 1.1 GENERAL

This User's Guide is designed to assist users of AVL Eagle's PROCALL Version 5 software in understanding and using the new AVL Genesis PROCALL-5.

If you are a new Genesis computer user, not familiar with the Eagle's PROCALL Version 5, use PROCALL-X software.

This User's Guide describes the additional and modified features of PROCALL-5. Also included is a listing of all valid command entries and instructions for creating, accessing, and restarting formats.

#### 1.2 PROCALL-5 FEATURES

AVL Genesis PROCALL-5 is the same as Eagle's PROCALL Version 5 except for the following:

- a. The Screen Status fields are displayed between the Control Command and the Programming fields.

- b. Special characters and use of the space bar are not permitted in file names.
- c. SMPTE is now offered as a timing code in addition to Clock-Trak.
- d. A HELP feature is offered as a listing of PROCALL-5 Commands and their use.
- e. Scrolling has been enhanced for a faster viewing of cues.

Paragraphs 1.3, 1.4, and 1.5 describe SMPTE, HELP, and Scrolling, respectively. Paragraphs 1.6 through 1.10 clarify descriptions of Showtime, Escape, Freeze/Preset, Mag Tape Bypass, and Status Line Display.

### 1.3 SMPTE OPTION

AVL's GENESIS now offers the option of being compatible with SMPTE.

The SMPTE (Society of Motion Pictures and Television Entertainment) time code is the standard timing and control code used by the motion picture and television industries today. SMPTE is used to mark and drive video tape decks,

audio tape decks, and other electronic devices that interface with video, and was primarily designed to control film and video editing. It provides for:

- \* Running Shows at speeds up to 30 frames per second.
- \* Running shows using video decks as well as the multi-image computer system.
- \* Running shows with all the components synchronized to one timing and control code.

SMPTE is like AVL's Clock-Trak in that it is a digital timing code which can be used to time cues. All rules concerning AVL Clock-Trak programming apply to SMPTE.

AVL's GENESIS will accept SMPTE input and generate SMPTE output, but it will not convert SMPTE to AVL Clock-Trak or vice versa.

To change the Clock Output Mode to SMPTE, enter the Control Command field and type SMPTE and press RETURN. On the Status line, AVL C will change to SMPTE.

#### 1.4 HELP FEATURE

Use of HELP provides a quick reference of commands. Included are Programming Commands, Editing Commands, Memory/Disk Data Transfer Commands, Mag Tape Control Commands, Editing, Print Commands, and X-15 Programming Commands.

To access HELP, at any point in the program, press the F1 key. To return to the program, press ESC.

#### 1.5 SCROLLING

The GENESIS permits scrolling at a rate of 10 lines per second through the cues in memory in both forward and reverse directions. Depressing the F10 key will initiate scrolling in the forward direction and the cues will move from bottom to top on the monitor. Depressing the F9 key will initiate scrolling in the reverse direction and the cues will move from top to bottom on the monitor. This replaces the REPEAT key not found on GENESIS.

Scrolling can also be started in the forward direction by depressing the Q (letter) key in a repeated manner. Likewise, reverse scrolling is obtained by depressing the Control key and then pushing the Q key. The message STANDBY



FOR GOTO will appear in the Status area indicating that scrolling has begun. A change of direction can be accomplished instantly as long as this message is displayed.

The GENESIS does not attempt to update Projector Status while scrolling is taking place. As soon as scrolling is terminated the GENESIS will update the Projector Status area and then send out the cues necessary to bring the lamp status and projector tray position up to date.

#### 1.6 SHOWTIME

The Showtime feature makes it possible to load a program from a disk into memory and come up ready to run a show just by turning the GENESIS computer on.

To use this feature simply save a copy of your program as "SHOWTIME" on the PROCALL disk. Thereafter, whenever the GENESIS is turned on and PROCALL is loaded, the GENESIS will take note of the SHOWTIME file and load it automatically. This will bypass the introductory sequences of PROCALL, and all of the program parameters, such as projector labeling and sequence 2/3 selection, will be set in accordance with the information stored as "SHOWTIME".

## 1.7 ESC (ESCAPE)

While in the Control Command field, depressing the CONTROL and P keys (CTRL/P) will return you to the programming field. However, AVL recommends the ESC (ESCAPE) key be used to return to the programming field from the Control Command field, to reduce the possibility of confusion with the Projector Disconnect command.

## 1.8 FREEZE/PRESET DISPLAY

To provide even more information to the user, current presets and freezes are displayed in the Status area. Similar to the case with loops and blinks, when there is a preset or freeze in effect, the first digit of the tray position will be blanked and a P displayed indicating a preset or an F indicating a freeze on that particular projector. Naturally, several letters cannot be displayed simultaneously in the same block so there is an order of precedence. A Loop or Blink status display will override a Preset status display and a Preset status display will override a Freeze status display.

## 1.9 MAG TAPE BYPASS

This is the normal default mode of the GENESIS. Whenever Genesis PROCALL-5 is loaded into the GENESIS it will automatically come up in Mag Tape Bypass and a message announcing this will be displayed on the screen.

If you decide to load a program which was saved on tape, the GENESIS will automatically switch modes and load the program into memory and then when the program is loaded it will revert to the Mag Tape Bypass mode.

In a similar manner the GENESIS will switch from Mag Tape Bypass to Clock Edit Mode automatically upon receipt of Clock Trak. When the Clock-Trak input stops it will remain in CEM mode until it receives data at the input, and at that point switch back to Mag Tape Bypass. If the GENESIS has been set up for a Mag Tape Load (SHOW PRO V compatible), touching any of the keys after the load is completed will return the GENESIS to the Mag Tape Bypass mode.

**NOTE:** The previous Control Command entries of MTB (Mag Tape Bypass) and MTN (Mag Tape Normal) are no longer necessary.

## 1.10 STATUS LINE

There is now a line in the program heading for Status. In some versions of PROCALL this line is left blank, except for an occasional comment. Now this line is shared by the Status comments, e.g: RCF, POF, PIF, and so on.

## CHAPTER 2

### GENESIS PROCALL-5 COMMANDS

#### 2.1 GENERAL

This chapter lists and describes the commands valid under AVL's Genesis PROCALL-5 software.

#### 2.2 PROGRAMMING COMMANDS

The subparagraphs that follow describe the Programming Commands used with AVL Genesis PROCALL-5.

##### 2.2.1 COMMANDS ENTERED UNDER THE CODE HEADING

###### CT (CUT)

A cut turns the lamp ON or OFF quickly. If the lamp is already ON, this will turn the lamp OFF and initiate a tray advance. If the lamp is OFF, it will then be turned ON. If you wish to cross from one visual to another quickly, a CUT will turn the ON lamp OFF and the OFF lamp ON, and the projector with the down-going lamp will perform a tray advance. A cut employs the after burner effect as described in the note below.

NOTE: A projector lamp does not turn on or off instantly with the application or removal of power. The lamp actually requires a fraction of a second to heat up or cool down. This is called the "thermal lag" of the lamp, and the lag is different for turning the lamp ON than it is for turning the lamp OFF. All AVL computerized dissolve controls automatically compensate for this effect.

Cuts and Alternates employ an "After-burner Effect" which allows the lamp to reach full intensity. Because of the time involved due to the lamp lag, the after burner does not allow the lamp to flash ON and OFF at 20 cues per second. Therefore, the Fast Alternate was created to defeat the after burner and to allow solo flashing and movement of visuals at 20 cues per second.

#### HC (HARD CUT)

A hard cut creates a sharper, harder image change on the screen. A hard cut closes the gate of the slide projector which shuts off the light before the lamp is turned OFF. The tray advances

to the next image and that projector is now ready to be turned ON again with the next slide. When HARD CUTS are used to make a transition between 2 visuals the change is much crisper than a CUT. This can be used to simulate the flicker of an old time movie when moving through many visuals rapidly.

#### SC (SOFT CUT)

A soft cut is a compromise between a cut and a one second dissolve. The projector with a down-going lamp will do a tray advance.

#### DISSOLVES

A Dissolve turns a projector lamp ON or OFF in a designated amount of time in seconds, creating a dissolve or a fade effect, e.g. 2D is a two second dissolve. You can create a cross-fade or dissolve from one visual to another using a dissolve in conjunction with two or more projectors. Again, the projector with the down-going lamp will have a tray advance.

1 D	6 D
2 D	8 D
3 D	16 D
4 D	32 D

## DISSOLVE ALTERNATES

These commands are equivalent to the Dissolves above but the tray is not advanced for the down-going projector. Dissolve alternates are also entered in a designated amount of time in seconds.

1 A	6 A
2 A	8 A
3 A	16 A
4 A	32 A

## AT (ALTERNATE or LT)

An Alternate turns the lamp ON or OFF with no tray advance. An ALT looks like a CUT on the screen.

## FA (FAST ALTERNATE)

A Fast Alternate turns the lamp ON or OFF as fast as the lamp allows. It is used to do alternates at 20 cues per second and roughly equates to a HARD CUT with no tray advance.

## FZ (FREEZE)

The AVL Genesis has the ability to stop any dissolve alternate while it is in progress and hold the light level at any light intensity. Freeze also allows



you to continue the dissolve in the same direction at the same rate or change the rate. You are also permitted to change directions using the same rate or a different rate. Only dissolve alternates should be used with a FREEZE.

**BG (BLINK GO)**

A Blink Go is used to initiate BLINKING in DOVE D'S and X's.

**BS (BLINK STOP)**

A Blink Stop is used to terminate a BLINKING sequence.

**AX (AUXILIARY FOR DOVES)**

This command is used with a screen and projector designation to obtain a momentary contact closure for control of auxiliary devices.

**HOME (PROGRAMMABLE RETURN TO BEGINNING OF PROGRAM)**

Home is used as a program function to return the program, slide trays, and lamp statuses to the home (cue #1) position. Home brings the lamps down and sends the trays to their original starting position by the shortest route.

NOTE: When HOME is part of a RUN sequence in the program, the program will assume it is to continue to run. The program will execute cue #1 and all subsequent cues in memory until it encounters a STOP command.

LDxx (PROGRAMMABLE LOAD OF FILE xx)

This cue automatically executes load from the disk into memory. When the LOAD FILE cue is executed in a RUN mode, the system will load the file xx. The program file system will then reset itself to cue number one and continue to run from that point. The tray and lamp status of the projectors will stay exactly the way they were before the load. Keep in mind that while the system is loading the file it is totally occupied. Pick a convenient slow period when no projector action is needed such as a wait or long dissolve.

LG (LOOP GO)

A Loop Go (LG) with DOVE X and D dissolves will cause all specified LOOPS to be repeated until told to STOP.

LL (LOAD LOOP)

Loop Load (LL) is used to instruct DOVE X's and D's to store a series of cues (ACTION CUES) in their memory as a routine that will be repeated.

LS (LOOP STOP)

Loop Stop (LS) will cause all LOOPS in progress on the designated DOVES to stop.

N (NO OPERATION)

This has no effect on the screen action. It equals a .1 second wait at 10 cues per second and a .05 second wait at 20 cues per second. N is also used as a convenient location for a RUN or STOP separate from any screen action.

PF (PROJECTOR FORWARD)

This cue, used with a projector and screen designation, will move the assigned projector tray forward one position without effecting the lamp status. Note that if you use PF with a screen number designation without specifying a projector, the system will assume that you want all projectors in the screen to move forward one position.

**PR (PROJECTOR REVERSE)**

This command functions the same as the PROJECTOR FORWARD command except that it will reverse the trays one position.

**PS (PRESET)**

This command Presets specific projectors to respond to the next action cue issued to the corresponding dissolve unit. This allows you to access projectors that do not have like projector assignments at the same time without the normal .1 or .05 seconds between cues. Preset allows simultaneous action on the assigned preset projectors when cued. Preset can also be used to deselect. In this case, you would select the projectors you do not want to respond. When a lamp command is executed on that screen the preset projectors will not respond.

**RPO (REPEAT UNTIL TERMINATED)**

This cue is used if an undetermined number of REPEATS is desired. The RPO can be terminated by pressing the CUE (F10) key or using a REMOTE CUE. This command is useful when you are doing "live" portions of your program and the length of a sequence is not known.

## RPX (REPEAT X)

RPX allows you to let the AVL GENESIS determine the number of times the sequence has to repeat. It is used while you are in the RUN mode and actually viewing the sequence. Enter the RPX into the program and start the sequence running, when the desired number of repeats have taken place on the screen press the F10 (CUE) key to move on to the next part of your program. The AVL GENESIS will resolve the X to the number of times the sequence is repeated.

**NOTE:** When you press the CUE (F10) key to resolve the RPX, the system will finish the sequence in progress before moving on.

## RPxx (REPEAT xx)

This command is used to repeat a series of cues that have a RUN embedded in the first cue to that sequence. The number (xx) of times to be repeated can be from 1-255. Up to 10 consecutive (Nested) RP commands are allowed.

**NOTE:** When you repeat a sequence 23 times the sequence will actually

take place 24 times. The sequence will take place once and then be repeated 23 times.

Using Nested (consecutive RP) commands it is possible to create a sequence that has billions of cues. Use nesting with extreme care.

**S10 (SPEED = 10 CUES PER SECOND)**

S10 is used to shift speed from 20 cues per second to 10 cues per second. The AVL GENESIS will automatically select 10 cues per second when the system is first LOADED, when you CLEAR ALL CUES from the Control Command mode, or when you perform a HOME.

**S20 (SPEED = 20 CUES PER SECOND)**

S20 is used to increase the running speed to 20 cues per second.

**NOTE:** The AVL GENESIS can execute a program (run sequence) at 10 cues per second or at 20 cues per second. Either speed may be selected by embedding speed change cues in the program. At 10 cues per second the AVL GENESIS will wait .1 seconds between the time a cue is issued and the time a

subsequent cue is issued. At 20 cues per second the system will wait .05 seconds between cues.

A Run Sequence is initiated by using a RUN command (stopped by a STOP command) or with the use of time cues from the Clock-trak or SMPTE. A RUN sequence will execute until it encounters a STOP or the next time cue. Run sequences are used to fire a series of cues rapidly with precise timing.

#### SG (SMOOTH GO)

A Smooth Go (SG) is a DOVE D or DOVE X command which allows direction change at any point in a dissolve curve. This feature enables the programmer to produce a rippling effect by cueing other dissolves BEFORE the completion of the previous dissolve. If this procedure were done without SMOOTH GO, the previous dissolve would move to its ending state when another dissolve is cued in, giving a popping effect.

#### SS (SMOOTH STOP)

A Smooth Stop (SS) is used to return all DOVES to normal from SMOOTH state.

**TBxx (TAB xx)**

This is a label which may be nested in the program to mark different sections of the show, where xx may be any two characters.

**TMxx (TIME hh:mm:ss:ff)**

Time cues in .01 second steps may be located in the program at any desired point. In this format "hh" is hours, "mm" is minutes, "ss" is seconds and "ff" is hundredths of seconds. You do not have to enter unused fields. For example:

10	Becomes 10 Seconds
10:	Becomes 10 Minutes
10: :	Becomes 10 Hours

The maximum value for a time cue is approximately 11 hours and 39 minutes. A time cue of 0.00 is not valid. If you should attempt to enter a time cue less than or equal to the current time, the system will reject the cue and issue a message on the status line. A time cue is essentially a null cue, that is, nothing goes out the mag tape channel when it is executed. When a MAG TAPE SAVE (MSV) operation is performed the time cues are recorded on the tape. A time cue takes less than .01 seconds to execute.



When PROCALL encounters a time cue while in the RUN mode, it will cause the program to stop. PROCALL will then wait until the clock equals the value of the time cue and then put the program into the RUN mode again.

#### TX (TIME X)

TX is used to mark the beginning of a timed (RUN) sequence using the Clock-trak or SMPTE. The X value is resolved when you press the F10 (CUE) key.

#### W.05 thru W10 (WAIT TIMES)

Waits are computer-generated timing links that allow you to time out action sequences precisely. These times are entered into the program in the form of wait cues ranging from .05 seconds up to 10 seconds. If a wait time longer than 10 seconds is desired, you may use consecutive wait cues to achieve the desired wait time.

**NOTE:** Because of the convenience of using Clock-trak or SMPTE, we strongly suggest that you use it instead of WAIT commands for times in excess of 2.0 seconds.

## WX (WAIT X)

This cue is used when the proper timing of a sequence has not been determined before programming. The WX cue is resolved to the nearest .05 second when you are operating at 20 cues per second and to the nearest .1 second when you are operating at 10 cues per second. The WAIT X is resolved by pressing the F10 (CUE) key during the running of the particular section.

### 2.2.2 COMMANDS ENTERED UNDER THE SCREEN HEADING

#### G (GO)

The GO command is used in the screen area of the display line to designate one of the following:

1. To mark the beginning of a REPEAT sequence.
2. To initiate a RUN sequence.
3. As a reference point.

#### S (STOP)

A stop command is used in the screen area of the display line to designate one of the following:

1. To mark the end of a RUN sequence.
2. To stop the screen action when using Clock-trak or SMPTE.

## P (PROCEED)

When running 20 cues per second, this is a 1/40th second link between two cues referencing different Banks. Its purpose is to approximate being able to make two separate cues happen at the same time. For example:

AT	ALT	1234	P
2D	2 SEC DIS		

## SCREEN NUMBERS

Possible screen numbers on OUT 1 (BANK A) and OUT 2 (BANK B) are 123456789.

## PROJECTOR NAMES

ABC	Projector names A, B, and C.
LCR	Projector names left, center, and right.
TCB	Projector names top, center, and bottom.

### 2.2.3 COMMANDS FOR EDITING PROGRAMS

Editing is a very important part of programming. The commands described below will assist you in editing your program quickly and easily.

Certain keys have dual functions and some keys are used in conjunction with the Ctrl key. For purposes of notation, to indicate that two keys are to be pressed simultaneously, a slash (/) is inserted between the names of the keys, e.g: CTRL/A.

#### CTRL/A (ADD A CUE)

This allows you to open up the memory and insert a cue into your program. This will move all subsequent cues down one cue number in the memory. Same as Ins (Insert) key.

#### CTRL/B (REVERSE TO PREVIOUS TAB)

This functions the same as CTRL/TAB.

#### CTRL/C (CONTROL COMMAND)

This is the way to enter the Control Command mode.

**CTRL/D (DELETE CUE)**

This will delete (remove) the cue that is being previewed and will close up the memory.

**CTRL/F (FILM DISCONNECT/NORMAL)**

This command disconnects or disables any film related cues from going out of the system.

**CTRL/G, ENTER (HOME PROJECTORS)**

This will issue a HOME cue to the attached dissolve units and return the program to CUE #1. The lamps will come down and the trays will move to their original starting position via the shortest route. This command functions the same as typing GOTO in the Control Command field.

**CTRL/Gxx (GOTO CUE xx)**

This will issue a command to the AVL Genesis to GOTO a specified cue in memory, where xx is the desired cue number. The lamp status and tray position will be updated to the dissolve units. This cue is used to move from any cue in memory to any other cue in memory. Use 9999 as the cue number to quickly move to the end of your program, since the GOTO will stop at the last cue

in memory. Same as typing GOTOxx in Control Command field

CTRL/G,T,M (GOTO TIME HH:MM:SS:FF)

This will issue a command to GOTO the desired time cue. If there is no time cue equal to the entered value, the system will go to the next time cue greater than the desired cue. Same as typing GOTO TIME in the Control Command field.

CTRL/K (REVERSE TO PREVIOUS GO)

This will issue a command to GOTO the last GO cue issued.

CTRL/N (DISPLAY NOTES/NORMAL)

This is used to display a NOTE stored in the note buffer (the program will continue to run without interruption).

CTRL/P (SLIDES DISCONNECT/NORMAL)

This command disconnects or disables any slide projector cues from going out of the AVL GENESIS system. Same as typing PD or PN in the Control Command field.

CTRL/Q (STEP REVERSE CUE)

This steps you through the program in the REVERSE direction in the cue at 10

cues per second each time the Q is depressed while holding down the CTRL key at 10 cues per second.

**CTRL/R (REPEAT PREVIOUS CUE)**

This repeats the previous cue each time the CTRL and the R keys are depressed simultaneously. Cues may be repeated rapidly by depressing the CTRL/R keys and holding them down. The AVL Genesis will sense any key held down for longer than a second and repeat it.

**CTRL/S (STANDBY)**

This will bring down the lamps of all projectors. The projectors will respond to advances and reverses and keep track of the lamp and tray statuses. To return to the normal lamp status, depress CTRL/S again.

**CTRL/T, ENTER (GOTO NEXT TAB)**

This allows you to access the TAB cue quickly.

**CTRL/T xx (GOTO TAB xx)**

This allows you to GOTO any desired TAB, where xx is the desired TAB number. Same as typing GOTO TB in the Control Command field.



#### CTRL/U (Change Mode)

This command will allow the user to change assignments to different locations while creating a screen format.

#### CTRL/X (AUX DISCONNECT/NORMAL)

This disconnects or disables auxiliary cues from going out of the AVL GENESIS system. Same as typing AD or AN in the Control Command field.

#### CUE (F10 key)

The CUE key commands the AVL GENESIS system to execute a cue or run a sequence from memory. When you are using Clock-trak or SMPTE, the AVL GENESIS will execute a chain of cues from memory until the next time cue is encountered. If you are hand cueing or remote cueing the system, CUE will step the program one cue at a time or start a run sequence if that cue has a RUN included in it. If projectors have been formatted for both BANK A and BANK B, but you first want to program BANK A only, use CUE to enter cues because it eliminates having the cursor moving into BANK B. When booting up the system, CUE will move you directly to the standard format.

## REVERSE CUE (F9 key)

When depressed, this key will move the program (memory) in the reverse direction as follows:

1. One cue if you are not in a RUN condition.
2. To the previous GO if in a RUN mode.
3. To the previous TIME cue if using Clock-trak or SMPTE, provided that there is not an intervening GO command.
4. To the previous LL command if it is in a Loop mode.

## RETURN (Return or ENTER key)

Depressing the RETURN key will enter the cue into the memory of the AVL GENESIS . This key is generally used to enter information into the system. It is essential to use this key to move through the flexible formatting questions and entries.

NOTE: When formatted for BANK A only, the cursor never enters the BANK B column.

## ESC (ESCAPE)

This allows you to ESCAPE (stop) any action that is being carried out by the AVL GENESIS. ESCAPE will turn off the MAG TAPE INPUT and cause the system to ignore Clock-trak, SMPTE, or data information. Pressing any key (AVL recommends you use the space bar) will turn the MAG TAPE INPUT back on. The ESC key also returns you to the programming mode from the Control Command mode.

## Q (STEP CUE)

The Q key will step you through the program in the forward direction each time you push the key. Scrolling in the forward direction at 10 cues per second may be initiated by depressing the Q key and holding it down.

## 2.3 CONTROL COMMAND FIELD ENTRIES

The subparagraphs that follow describe the valid Control Command Field entries.

### 2.3.1 EDITING CONTROL COMMANDS

#### BPF Enter (BEEPER OFF)

This command allows you to turn the BEEPER OFF.

#### BPN Enter (BEEPER ON)

This command turns the BEEPER back to normally ON.

#### CAC Enter (CLEAR ALL CUES)

This command clears all cues from the memory. A HOME command is also issued to the dissolve units.

**CAUTION:** Be sure you have stored the information or that you really do not want the information that you are clearing from memory.

#### CLN (CLEAR NOTES)

This permits you to clear a NOTE currently stored in the NOTE buffer.

**CUES (DISPLAY TOTAL CUES)**

This displays the total cue storage capability of the memory and the amount of cues remaining. Subtracting the two will give you the total cues used in the program.

**ESNx,y (EXCHANGE SCREEN NUMBERS)**

The ESN command exchanges the screen numbers of your program. ESN entered as: ESN xx,yy will take all cues on screens x,x and change them so they are now on screens y,y.

**IAMxx (CHANGE OPERATORS NAME TO xx)**

This command changes the operator's name on the program in memory to xx (xx may be up to 25 characters in length).

**KBF (KEYBOARD EDIT OFF)**

This command disables the keyboard so that no direct changes can be made to the cues of the program. Any of the features of the AVL GENESIS system that are available to you in the CONTROL COMMAND mode are still usable.

**KBN (KEYBOARD EDIT ON)**

This returns the keyboard to normal (ON) operation.

**NEW (ESTABLISH NEW HOME POINT)**

This tells the system that you want to use the current projector status as the home reference point. This is done automatically with the cue of program-mable loads.

**NOTES (EXAMINE AND EDIT NOTES)**

This blanks the display and allows the entry of up to 11 lines of 45 characters each. A NOTE can store information such as special set up instructions for a show.

**PA (PROJECTOR ASSIGNMENT)**

This allows you to determine how the projectors will be assigned (ABC, LCR, or TCB). Default status is LCR (left, center, right).

**PGMxx (CHANGE PROGRAM NAME TO xx)**

This permits you to change the name of the program in memory to xx (xx may be up to 8 characters in length).

**RCF (REMOTE CUE OFF)**

This will turn the REMOTE CUE jack off. The AVL GENESIS system will ignore any remote cue impulses.

RCN (REMOTE CUE ON)

This will return the remote cue jack back to its normal ON state.

RTCx.y (REPLACE TIME CUES WITH TX)

This command will replace all TIME cues with TIME X cues beginning with the first cue specified (x) and continuing until the last cue specified (y) has been examined.

SEQ2 (PROJECTOR SEQUENCE 2)

This allows you to sequence between two of the three available projectors (A and C).

NOTE: You can still access the "B" projector independently.

SEQ3 (PROJECTOR SEQUENCE 3)

This allows you to return to sequencing three projectors

TOC x,y (TIME OFFSET CUES x,y)

This command allows you to add or subtract a time value (HH:MM:SS:FF) from either a range of time cues or from all time cues in memory. PROCALL will use the first cue number (x) to begin a

search for time cues to be modified and continue until the last cue specified (y) has been examined and changed.

**TPOx (TRAY POSITION OFFSET x)**

This will set a starting tray position for the position status. You can use any (x) number from 0 to 80.

**XSN x,y (EXPAND SCREEN NUMBERS)**

This command allows you to expand the screen numbers of the cues on a particular screen to any or all of the other screens. For example, XSN x,yyyy will expand cues of the screen number (x) before the comma to the screens listed after the comma (yyyy).



### 2.3.2 MEMORY/DISK DATA TRANSFER COMMANDS

#### AVL (CLOCK-TRAK)

This command turns AVL's Clock-trak ON and causes the SMPTE indicator to disappear from the display line. Clock-trak is the default timing and control code for AVL GENESIS.

#### APxx (APPEND FILE xx)

This allows you to add a file named xx from the disk to the end of the program in the memory of the AVL GENESIS. The long form "APPEND xx" is the same.

#### CNPxx (CLEAR NAME PROTECT xx)

This command allows a file named xx to be renamed.

#### CWPxx (CLEAR WRITE PROTECT xx)

This command permits you to delete a file named xx from the disk.

#### DELxx (DELETE FILE xx FROM THE DISK)

This command permits you to delete a file named xx from the disk. Deletion occurs only if the program is not WRITE PROTECTED. Same as long form DELETE xx.

DLC xx,yy (DELETE CUES FROM xx to yy)

This command allows you to delete portions of your program from cues xx to yy inclusive.

DSK (DISK DRIVE INDICATION)  
(For AVL Genesis Only)

Typing DSKA instructs AVL GENESIS to use the A (left) drive. Likewise DSKB instructs for the use of the B (right) drive.

INSxx (INSERT FILE NAMED xx)

This command allows you to insert a program named xx between cues already in the memory of the AVL Genesis. The insertion takes place at the location of the cursor. The long form INSERT xx is the same.

LDxx (LOAD FILE NAMED xx)

This permits you to load a program named xx from the disk into memory. The long form LOAD xx is the same.

LIB (LIBRARY)

This will display on the video monitor the file names of all programs stored on the disk. When a full screen of library entries has been displayed you may push

any key, except the ESC or F10 (CUE) keys, to see the next line of entries. If you would like to start over again at the top of the list, push the REVERSE CUE (F9) key. If you do not wish to see any more entries, push the ESC key.

**NLDxx (NOTES LOAD xx)**

This will load a NOTE file titled xx into the NOTE buffer in the memory of the AVL Genesis.

**NPRxx (NAME PROTECT xx)**

This will protect a file named xx from being accidentally renamed.

**NSVxx (NOTES SAVE xx)**

This will save a NOTE currently in the NOTE buffer in memory on to the disk as xx (xx may be any two characters).

**PACK (PACK DISK)**

This closes the gaps between the files stored on the disk caused by deletion of other files. The GENESIS will do this automatically as the disk fills up.

**RNMx,y (RENAME FILE x AS y)**

This will rename a file titled x on the disk as y. Renaming will occur only if

the file is not name protected. Same as long form RENAME x, y.

#### **SV (SAVE)**

This will save the program in memory on the disk with the program name on the monitor as the file name. The long form "SAVE" is the same.

#### **SVxx (SAVE CUES xx)**

This command will save the program in memory on the disk with xx assigned as the file name; xx may be up to 8 characters in length. Same as SAVE xx.

#### **SCxx.yy.FILENAME (SAVE CUES xx TO yy UNDER FILENAME)**

This command allows you to save sections of cues out of your program onto the disk under an assigned file name.

#### **SMPTE**

This command tells GENESIS to use SMPTE as the timing and control code. When selected, SMPTE is shown on the display line.

#### **WPRxx (WRITE PROTECT xx)**

This enables you to protect a file named xx on the disk from accidental erasure.

### 2.3.3 MAGNETIC TAPE CONTROL COMMANDS

#### CEM (CLOCK EDIT MODE)

Allows the GENESIS to read Clock-trak or SMPTE off magnetic tape and synchronize the program in memory. If the tape data stops, the program will stop 0.5 seconds after the data stops. As soon as the Clock-trak or SMPTE input begins again, the system will execute a GOTO to be ready for the next section.

#### CIM (CLOCK INPUT MODE)

This command will put the system into CLOCK INPUT MODE. The Clock-trak or SMPTE data on a tape does not resemble normal cues on a data tape so the AVL GENESIS will ignore Clock-trak or SMPTE data unless you are in either CLOCK INPUT or CLOCK EDIT mode. When the system is in either of the two modes (CIM, CEM), it will accept only SMPTE or CLOCK-TRAK data as a valid input. The Clock-trak or SMPTE data coming into the system starts and stops a program stored in the memory of the AVL GENESIS at the precise times you designate and normal cue data is sent out of the system.

The main difference between CLOCK INPUT and CLOCK EDIT modes is that in CLOCK INPUT mode the system will continue to

run on its own internal clock timer if the input from the Clock-trak or SMPTE on tape stops. The AVL GENESIS will display a message warning you that the input from tape has stopped.

Once a TIME or TIME X cue has been executed, the AVL GENESIS will stay in perfect sync with the time recorded on the tape. The system will automatically execute a GOTO, if necessary, to continue tracking with the Clock-trak or SMPTE from tape. If you stop the tape and fast forward or reverse the tape, the system will GOTO the correct place in the program automatically and update projector lamp and tray statuses.

#### COM (CLOCK OUTPUT MODE)

This generates Clock-trak or SMPTE from the OUT 1 jack on the AVL Genesis for recording on magnetic tape. Normally the time will begin at time zero. However, if you want to start at a fixed point in time, you can enter the starting time (see next command).

#### COM HH:MM:SS:FF (CLOCK OUTPUT MODE)

This also generates Clock-trak or SMPTE from the OUT 1 jack. However, if you want to start at a fixed point in time, you can enter the starting time (hours, minutes, seconds, and hundredths).

**MIF (MAGNETIC TAPE INPUT OFF)**

This will turn OFF any magnetic tape input and the AVL Genesis will ignore any data input into the PLAY IN jack.

**MIN (MAGNETIC TAPE INPUT ON)**

This turns the magnetic tape input (PLAY IN) back ON.

**MLD (MAGNETIC TAPE LOAD)**

This allows you to load a program into the memory of the AVL GENESIS from any tape or directly from an AVL GENESIS or one of AVL's other programs.

**MOF (MAGNETIC TAPE OUTPUT OFF)**

This will prevent the generation of data information from the OUT1 and OUT2 jacks. When this occurs only nulls are generated. (A null is a signal that indicates the absence of data). Turning the output off enables you to move through the program without advancing the projectors.

**MON (MAGNETIC TAPE OUTPUT ON)**

This turns on data to the Out1 and OUT2 jacks.

**MSV (MAGNETIC TAPE SAVE)**

This feature allows you to dump the contents of the memory of the AVL GENESIS on to magnetic tape in the same fashion as saving the memory contents onto the disk. In dumping a program using both banks of projectors, simply connect the tape recorder to Out1. Both banks are recorded simultaneously through Out1. Therefore, it is possible to load a 30 projector show.

**PIF (POSI-TRAK INPUT OFF)**

This tells the AVL GENESIS to disregard any POSI-TRAK being received.

**PIN (POSI-TRAK INPUT ON)**

This tells the AVL GENESIS to process any POSI-TRAK being received.

**POF (POSI-TRAK OUTPUT OFF)**

This command is used to instruct the AVL GENESIS to halt POSI-TRAK generation out. It can still be read into AVL GENESIS.

**PON (POSI-TRAK OUTPUT ON)**

This command is used to instruct AVL GENESIS to restore POSI-TRAK generation.



**STL (SET LEVELS)**

This command tells the AVL GENESIS to generate a continuous test done from the RECORD OUT RCA jack on the rear panel to enable you to adjust the record level of your tape recorder. (Adjust for 0 VU).

**VER (VERIFY (MSV ONLY))**

This command allows you to verify the accuracy of the information that has been saved on magnetic tape before you clear the program from memory.

## 2.4 PRINT COMMANDS

The following print commands and print parameters are Control Command Field entries.

NOTE: SPD, PLP, or SLP must be specified BEFORE the commands PLB or PRINT are used. If not AVL Genesis will automatically select: SPD 300, NPB, and SLP.

### PRINT

This command prints Program Name, Operator Name, and Cue information on an external printer.

### PLB (PRINT LIBRARY)

This command will print all directory information on an external printer.

### SPD (PRINTER SPEED SELECT)

This command selects the Baud rate of the external printer. (See printer manual for suggested Baud rate). The values that AVL Genesis will accept are as follows: 75, 110, 150, 300, 600, 1200, 1800, 3600, 4800, 7200, and 9600. If not specified, AVL GENESIS will default to Baud RATE 300.

**NPB (NO PRINTER BUSY)**

This command tells AVL GENESIS not to bother to look for a busy signal. This also is the default condition if no other busy commands are given to the AVL GENESIS.

**PLP (PARALLEL LINE PRINTER)**

This command will direct all print operations to the parallel printer on port B. Check your printer specifications to determine the type of input it accepts. (Parallel or Serial)

**SLP (SERIAL LINE PRINTER)**

This command will direct all print operations to the serial printer on port A. This is the default condition if Parallel printer (PLP) is not specified.

## 2.5 COMMANDS FOR PERIPHERAL EQUIPMENT

### 2.5.1 X-15 PROGRAMMING COMMANDS

#### NOTES:

1. The GENESIS allows you to use two X-15s in line with your dissolve units (one each on OUT1 & OUT2) and allows you to use both the X-15 and dissolve auxiliaries with their respective commands.
2. All auxiliary cues must specify screen and projector independents.
3. You can NOT have an auxiliary command for the X15 and an auxiliary in your dissolve unit in the same cue.

#### XS (SHORT PULSE)

This will initiate a momentary (05 seconds) closure of the contacts. This amount of contact closure time is usually sufficient for most auxiliary equipment.

**XL (LONG PULSE)**

This will cause a momentary (.5 seconds) closure of the contacts. This is used for equipment that requires a longer contact closure.

**XN (LATCH ON)**

This will keep the selected channels closed until interrupted by a new command. This permits the relays to be used as either normally open or normally closed. The new command can be an XS or XL, which will cause the contact to open momentarily and then close again.

**XF (LATCH OFF)**

Cancels the LATCH ON status and renders the assigned channel inactive.

## 2.5.2 RAVEN PROGRAMMING COMMANDS

### FFxx (FILM FORWARD)

This command advances film forward at xx frames per second.

### FRxx (FILM REVERSE)

This command reverses the film at xx frames per second.

NOTE: FF (Film Forward) and FR (Film Reverse) can run speeds of 1,2,3,4,6,8,12,18 and 24 FPS (Frames per Second).

### FFS (FORWARD FRAME STEP)

This command steps the film forward one frame at a time.

### FRS (REVERSE FRAME STEP)

This command steps the film backwards one frame at a time.

### FS (FILM STOP)

This command stops the film.

**FB=(xxxxxx) (FILM BEGIN)**

This command assigns the frame number at which you want to begin.

**FE=(xxxxxx) (FILM END)**

This command assigns the frame number at which you want to end.

**NOTE:** FB and FE are double cues. The first cue assigns the code and selected projector and the second cue assigns the frame number at which you want to begin or end.

**FTN (FILM TRACKING ON)**

This command turns on the film tracking.

**FTF (FILM TRACKING OFF)**

This command turns film tracking off.

**Fx (FILM SPEED CHANGE)**

This command will change the film speed +x% (1-6).

**F-x (FILM SPEED)**

This command will reduce the film speed -x% (1-6).

FO (FILM SPEED NORMAL)

This command returns the film speed to normal.

MN (MOTOR ON)

MF (MOTOR OFF)

LN (LAMP ON)

LF (LAMP OFF)

### 2.5.3 RAVEN EDITING COMMAND

AF(x) (ASSIGN FILM PROJECTORS)

All Film Projector Screen assignments must be entered by this control command before ANY film type cues can be executed.

FS(x)+ (FILM FORWARD ONE FRAME)

This command will advance the selected (x) film projector one frame.

FS(x)- (FILM REVERSE ONE FRAME)

This command will reverse the selected (x) film projector one frame.



**FOCx,y,+/- (x) (FRAME OFFSET CUES + OR -)**

This command allows you to add or subtract a frame value (x) from either a range (x,y) of cues or from all cues in your program.

**NOTES:**

## CHAPTER 3

### FORMATTING PROGRAMS

#### 3.1 GENERAL

The following paragraphs describe the procedures to be followed when creating a new format, accessing a previously created format, and restarting a format.

#### 3.2 CREATING A NEW FORMAT

To use the standard format, follow the procedure outlined below.

- a. Place the Genesis PROCALL-5 disk into Drive A.
- b. Place a storage disk in Drive B.
- c. Turn GENESIS on.
- d. When the following prompt:

HELLO, I AM GENESIS FROM  
AVL. WHAT IS YOUR NAME?

appears on the screen, type your name (up to 25 characters) and press RETURN key.

If you do not wish to enter your name, merely press RETURN.

e. When the prompt:

HI THERE, NAME. NICE TO MEET YOU.

I CAN SEQUENCE 2 OR 3 PROJECTORS PER SCREEN.

HOW MANY WOULD YOU LIKE?

appears, enter 2 for two projectors, or 3 for three projectors, and press RETURN. Your entry will appear on the screen.

f. If you entered 2, the system asks:

PLEASE NAME YOUR PROJECTORS

ENTER 1 FOR LR,  
2 FOR TB,  
or 3 FOR AC.

Enter 1 for left-right, 2 for top-bottom, or 3 for A and C.