



TECH NOTE

Fastrack VS Version 2.0 and later

D/ESAM-230 AUDIO **DESAM230.MIX PROTOCOL**

This document covers the Fastrack VS features and parameters pertaining to the Graham-Patten D/ESAM 230 Audio Mixer using the DESAM230.MIX protocol.

Interface

Switcher-To-Editor Connections

The Fastrack controls the D/ESAM 230 Mixer through a serial RS422 cable with a 9-pin D connector from any serial port on the Fastrack serial breakout interface. 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 lower right front panel should be illuminated.

Virtual to Logical machine mapping (assignability)

The D/ESAM230 mixer consists of Physical Inputs (1-24) on the rear of the D/ESAM 230 that are assigned to Virtual Machines (VTR1-4, VTR5-8, etc). Virtual Machines are in turn assigned to Logical Devices (A, B, C, etc). Inputs are numbered and are either Analog or Digital. Virtual Machines are numbered 1 through 255 with 0 being reserved for Silent. Logical Devices are those accessed on the front panel of the mixer and are labeled "R", "A", "B"... "AUX."

Logical Devices are assigned to the individual tracks of Fastrack. Selecting a single track and playing a clip on that track will result in that track's Logical Device being monitored via the DESAM230 mixer. Previews and Records will monitor the Program Out of the DESAM230 mixer so that you'll hear the mixed output of the mixer.

Fastrack and ESAM-4

Fastrack's new implementation of the DESAM230.MIX protocol uses unique ESAM IV protocol features. The audio crosspoint entries ([SHIFT][ASGN] page) represent both the Logical Devices and Virtual Machines used in the D/ESAM230 Mixer. The **A1** column represents the "Logical Device" used on each track (1=A, 2=B, 3=C, 4=D, etc). The **A2** column represents the "Virtual Machine" on the D/ESAM230 (the virtual machine numbers are listed in the following table).

Example: if the A1 column for Track 1 is set to 1 and A2 set to 7, the Fastrack source key "T1" will monitor Mixer Logical Machine "A" with the Virtual Machine identified in the audio crosspoint field (A2 column = 11 for Virtual Machine V9-10 since it is the eleventh machine listed in the D/ESAM230's internal Machine Assignment dialog (Menu / Mach, select device "A" {label reads "A Rate 1"} on the keypad, turn the knob to select V9-10 and then press Enter on the keypad section of the DESAM230).

D/ESAM 230 Virtual Machines:

Use numbers 1 through 48 for A2 crosspoints on the Assignment page ([SHIFT][ASGN]).

Example below: Fastrack's A2 audio crosspoint 7 selects virtual machine 7 using just two physical inputs (1 and 2).

A2 Xpoint	Virtual Machine	A2 Xpoint	Virtual Machine	A2 Xpoint	Virtual Machine
1	V1-4	17	V21-22	33	V15
2	V5-8	18	V23-24	34	V16
3	V9-12	19	V1	35	V17
4	V13-16	20	V2	36	V18
5	V17-20	21	V3	37	V19
6	V21-24	22	V4	38	V20
7	V1-2	23	V5	39	V21
8	V3-4	24	V6	40	V22
9	V5-6	25	V7	41	V23
10	V7-8	26	V8	42	V24
11	V9-10	27	V9	43	RTN1
12	V11-12	28	V10	44	RTN2
13	V13-14	29	V11	45	RTN3
14	V15-16	30	V12	46	RTN4
15	V17-18	31	V13	47	RTN5
16	V19-20	32	V14	48	RTN6

Editor Setup for D/ESAM 230 Mixer Control

Assignment Page

Pressing **[SHIFT][ASGN]** simultaneously will open the **ASSIGN** dialog for track, video switcher, and audio mixer assignments.

In the Audio Mixer section, ensure the following:

Type: Desam230.mix
Connection: P1 through P8 (port connected to the D/ESAM230)
Enabled: tick so the checkmark is visible

The Fastrack should acknowledge these selections with "**Waiting for desam230 at Port x**" and "**Desam230 selected**" when all is connected and set properly. **[ESC]** closes the dialog.

Crosspoint Mapping

Fastrack can "map" the Virtual to Logical Machines of the D/ESAM230 by pressing **[SHIFT][ASGN]** to open the **ASSIGN** dialog and selecting the "Send Assignment" button. The Virtual to Logical map is sent to the Mixer after a "Send Assignment" and after each press of **[SHIFT][RESET]**.

Mixer Enable/Disable

Crosspoint control from the editor over the D/ESAM 230 Mixer can be enabled or disabled by the **Enabled** "tick" box in **the [SHIFT][ASGN]** section of the Fastrack editor.