

## Updated Latency for AERO.100, AERO.2000 and AERO.1000

Re: V 3.15.26 and 3.16.02 (limited release)

Date: August 2016

I. Specifications for audio processing latency found in **AERO.100 and AERO.2000** units that have CN2000 + CN1167 boards installed.

AERO.100 and AERO.2000 units with CN1167 boards added.

Limited release software v 3.15.26.

Software release v 3.16.02

The correct audio processing latency figures are found below.

### AMX5.1 and AMX2.0 instances

DRC 1 Inputs 1-6 to DRC Outputs 1-6	144 ms
DRC 2 Input 7/8 to DRC 2 Output 7/8	144 ms
DRC3 Input 9/10 to DRC 3 output 9/10	144 ms
DRC 1 downmix to 7/8 and 9/10	144 ms
DRC 3, Local insert to Inputs 1-6 and 7/8	144 ms (with or without upmixing)
Nielsen Encoding: add	21 ms
Crowd Control: add	25 ms
Dolby Digital/Dolby Digital Plus: add	72 ms
Dolby E encoding: add	54.5 ms

### AMX5x2

DRC 1 Inputs 1/2 to DRC Outputs 1/2	96 ms
DRC 2 Input 3/4 to DRC 2 Output 3/4	96 ms
DRC 3 Input 5/6 to DRC 3 Output 5/6	96 ms
DRC 4 Input 7/8 to DRC 4 Output 7/8	96 ms

DRC 5 Input 9/10 to DRC 5 output 9/10	96 ms
DRC 1 downmix to 7/8	96 ms
DRC 1 Lo/Ro downmix to 9/10	96 ms
DRC 1 Lt/Rt downmix to 9/10	96 ms
DRC 5, Local insert to Outputs 1/2 and 7/8	96 ms (with or without upmixing)

### **Special Low Latency/unbuffered modes**

Low latency/unbuffered modes do not support any Dolby encoding or decoding or Nielsen or any other watermark encoding.

### **AMX5.1 and AMX2.0**

DRC 1 Inputs 1-6 to DRC Outputs 1-6	37 ms
Upmixing power enabled: add	16 ms
DRC 2 Input 7/8 to DRC 2 Output 7/8	34 ms
DRC3 Input 9/10 to DRC 3 output 9/10	34 ms
DRC 1 downmix to 7/8	37 ms
DRC 1 Lo/Ro downmix to 9/10	37 ms
DRC 1 Lt/Rt downmix to 9/10	61 ms
DRC 3, Local insert to Inputs 1-6 and 7/8	37 ms (with or without upmixing)

### **AMX5x2**

DRC 1 Inputs 1/2 to DRC Outputs 1/2	50 ms
DRC 2 Input 3/4 to DRC 2 Output 3/4	50 ms
DRC 3 Input 5/6 to DRC 3 Output 5/6	50 ms
DRC 4 Input 7/8 to DRC 4 Output 7/8	50 ms
DRC 5 Input 9/10 to DRC 5 output 9/10	50 ms
DRC 1 downmix to 7/8	50 ms

DRC 1 Lo/Ro downmix to 9/10	50 ms
DRC 1 Lt/Rt downmix to 9/10	50 ms
DRC 5, Local insert to Outputs 1/2 and 7/8	50 ms (with or without upmixing)

**II. Latency of AERO.100, AERO.1000 and AERO.2000 units with CN2000 boards only, using software:**

Limited release software v 3.15.26.

Software release v 3.16.02

**AMX5.1 and AMX2.0**

DRC 1 Inputs 1-6 to DRC Outputs 1-6	157.8 ms
DRC 2 Input 7/8 to DRC 2 Output 7/8	157.8 ms
DRC3 Input 9/10 to DRC 3 output 9/10	157.8 ms
DRC 1 downmix to 7/8	157.8 ms
DRC 1 downmix to 9/10	157.8 ms
DRC 3, Local insert to Inputs 1-6 and 7/8	157.8 ms (with or without upmixing)
Nielsen	21 ms
Crowd Control	24 ms
Dolby Digital encode	71 ms
Dolby E encode	54.5 ms

**AMX5x2**

DRC 1 Inputs 1/2 to DRC Outputs 1/2	110 ms
DRC 2 Input 3/4 to DRC 2 Output 3/4	110 ms
DRC 3 Input 5/6 to DRC 3 Output 5/6	110 ms
DRC 4 Input 7/8 to DRC 4 Output 7/8	110 ms

DRC 5 Input 9/10 to DRC 5 output 9/10	110 ms
DRC 1 downmix to 7/8	110 ms
DRC 1 Lo/Ro downmix to 9/10	110 ms
DRC 1 Lt/Rt downmix to 9/10	110 ms
DRC 5, Local insert to Outputs 1/2 and 7/8	110 ms (with or without upmixing)

**5.1 and 2.0 low latency and unbuffered mode (No Dolby or Nielsen encoding or Dolby decoding supported)**

DRC 1 Inputs 1-6 to DRC Outputs 1-6	49 ms
DRC 2 Input 7/8 to DRC 2 Output 7/8	47 ms
DRC3 Input 9/10 to DRC 3 output 9/10	47 ms
DRC 1 downmix to 7/8	49 ms
DRC 1 downmix to 9/10 (LoRo)	49 ms
DRC 1 downmix to 9/10 (LtRt)	73.6 ms
DRC 3, Local insert to Inputs 1-6	49 ms (with or without upmixing)
DRC 3, Local insert to Input 7/8	47 ms (with or without upmixing)