

---

## **AMX-1881-NBC**

**NOTE:** The iControl compatibilities shown below are estimated initial support. Earlier versions may also work with bugs or limited features.

### **1. FIRMWARE VERSION: 913**

**Release date:** 2009-11-19

**Program #:** 7685-0103-913

**iControl compatibility:** 3.52 (build 33)

**iControl Solo compatibility:** 3.52 (build 1)

**RCP-200 compatibility:** NA

**Hardware incompatibility:** This firmware applies to all existing hardware assembly.

#### **1.1. BUGFIXES**

##### **1.1.1. Spurious glitches in AES detection**

When the AES inputs are stable, there are spurious glitches in the detection. This makes the iControl AES detection toggle randomly (with a period varying from a few seconds to a few minutes).

##### **1.1.2. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data**

##### **1.1.3. Potential for audible distortion in SD-SDI when embedding AES audio**

This problem sometimes happen when the video input switches in a "non-clean" manner. Improved video input error and hot-switches detection.

##### **1.1.4. Potential for audio clicks and pops on channels coming from AES inputs with no valid AES carrier (or not connected)**

The AES receivers configuration has been changed to output silence when no AES carrier is detected.

##### **1.1.5. Wrong CRC value in the inserted VLI**

##### **1.1.6. Bad detection of VLI when generated by equipment other than AMX-1881**

This version detects proper VLI signals as well as the VLI with wrong CRC as computed with the previous (buggy) version.

## 1.1.7. Possible audio corruption when changing audio delay

## 1.1.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data

## 1.2. ENHANCEMENTS & NEW FEATURES

### 1.2.1. AFD code substitution

This new feature applies **ONLY to the Automatic AFD** insertion mode. In this mode, a lookup table has been introduced between the detected AFD and the code inserted. This allows for substitution of problematic AFD codes.

## 1.3. KNOWN BUGS & LIMITATIONS

### 1.3.1. AFD preset and substitution table

In the iControl GUI, the AFD presets that are saved and restored with the "AFD presets..." button do NOT include the substitution table. This button should be removed in future releases due to its questionable usage.

### 1.3.2. The colorbar test pattern has been replaced by a gray flat field

### 1.3.3. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

WORKAROUND: After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

NOTE: You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

### 1.3.4. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

### 1.3.5. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

---

## 1.3.6. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

## 2. FIRMWARE VERSION: 207

Release date: 2007-08-09

ECO/NCO #: 685-99A01-305, 685-99A01-208

Program #: 7685-0101-207

iControl compatibility: 3.11 (build 51)

iControl Solo compatibility: 3.23 (build 26)

RCP-200 compatibility: NA

Hardware incompatibility: This firmware applies to all existing hardware assembly.

### 2.1. BUGFIXES

#### 2.1.1. Firmware update failure

Cannot update card's firmware using MIU application with the CPU-ETH-2 controller.

### 2.2. ENHANCEMENTS & NEW FEATURES

#### 2.2.1. Factory default line selection for AFD

	SD-525	SD-625	1920x1080@59.94i	1920x1080@50i
FIELD1	NA	NA	11	11
FIELD2	NA	NA	11	11

### 2.3. KNOWN BUGS & LIMITATIONS

#### 2.3.1. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

WORKAROUND: After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

NOTE: You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

## 2.3.2. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

## 2.3.3. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

## 2.3.4. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

## 2.3.5. Wrong CRC value in the inserted VLI

When inserting VLI, the CRC generated has an invalid value.

## 2.3.6. Bad detection of VLI when generated by equipment other than AMX-1881

VLI generated by another AMX-1881 is detected but if the VLI is generated by another card it is not detected.

## 2.3.7. Possible audio corruption when changing audio delay

Changing audio delays, may introduce a corruption of the audio data.

WORKAROUND: Change the audio delay once or twice should correct the problem.

## 2.3.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data



## 3. FIRMWARE VERSION: 206

Release date: 2007-07-12

ECO/NCO #: 685-99A01-304, 685-99A01-207

Program #: 7685-0101-206

iControl compatibility: 3.11 (build 51)

iControl Solo compatibility: 3.23 (build 26)

RCP-200 compatibility: NA

Hardware incompatibility: This firmware applies to all existing hardware assembly.

### 3.1. BUGFIXES

#### 3.1.1. NON-PCM audio processing

When NON-PCM audio is detected on a given audio channel input, audio proc functions must be blocked in user menu.

#### 3.1.2. Time code frame compensation

In 720p50 or 60, time code frame compensation (1, 2 or 3 frames) doesn't work.

#### 3.1.3. Audio channel status inverted

Audio channel status of each AES input are inverted (left-right inversion).

#### 3.1.4. Video performance

At the time of this release, a hardware modification has been performed to improved video performances. Cards manufactured before this date will not have the improvement. See above ECO# for details. For PCB versions 200, this modification was applied on assembly number 0685-0100-208. For PCB versions 300, this modification was applied on assembly number 0685-0100-305.

### 3.2. ENHANCEMENTS & NEW FEATURES

-

### 3.3. KNOWN BUGS & LIMITATIONS

#### 3.3.1. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

**WORKAROUND:** After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

**NOTE:** You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

### 3.3.2. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

### 3.3.3. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

### 3.3.4. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

### 3.3.5. Wrong CRC value in the inserted VLI

When inserting VLI, the CRC generated has an invalid value.

### 3.3.6. Bad detection of VLI when generated by equipment other than AMX-1881

VLI generated by another AMX-1881 is detected but if the VLI is generated by another card it is not detected.

### 3.3.7. Possible audio corruption when changing audio delay

Changing audio delays, may introduce a corruption of the audio data.

**WORKAROUND:** Change the audio delay once or twice should correct the problem.

---

3.3.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data



## 4. FIRMWARE VERSION: 205

Release date: 2007-02-27

ECO/NCO #: 685-99A01-303, 685-99A01-206

Program #: 7685-0101-205

iControl compatibility: 3.11 (build 51)

iControl Solo compatibility: 3.23 (build 26)

RCP-200 compatibility: NA

Hardware incompatibility: This firmware applies to all existing hardware assembly.

### 4.1. BUGFIXES

#### 4.1.1. Densité controller display

When AMX-1881 card is selected on Densité controller and then we select another card, controller display doesn't work correctly.

#### 4.1.2. Audio packets in HANC following switch point

With 1080i video formats, it is forbidden to insert audio packets in HANC following video switch point (SMPTE299M-1997). This is not the case in second field of each frame.

#### 4.1.3. ATC time-code with Sony VTR

Some Sony VTRs are incompatible with time code inserted by AMX-1881 (ATC format).

#### 4.1.4. Dolby metadata

When using an AMX-1881, followed by an ADX-1881 and a second AMX-1881, Dolby metadata functionality is corrupted.

### 4.2. ENHANCEMENTS & NEW FEATURES

#### 4.2.1. Factory default line selection for AFD

	SD-525	SD-625	1920x1080@59.94i	1920x1080@50i
FIELD1	NA	NA	11	11
FIELD2	NA	NA	11	11

## 4.3. KNOWN BUGS & LIMITATIONS

### 4.3.1. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

WORKAROUND: After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

NOTE: You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

### 4.3.2. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

### 4.3.3. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

### 4.3.4. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

### 4.3.5. Wrong CRC value in the inserted VLI

When inserting VLI, the CRC generated has an invalid value.

### 4.3.6. Bad detection of VLI when generated by equipment other than AMX-1881

VLI generated by another AMX-1881 is detected but if the VLI is generated by another card it is not detected.

#### **4.3.7. Possible audio corruption when changing audio delay**

Changing audio delays, may introduce a corruption of the audio data.

WORKAROUND: Change the audio delay once or twice should correct the problem.

#### **4.3.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data**

## 5. FIRMWARE VERSION: 202

Release date: 2006-08-22

ECO/NCO #: 685-99A01-301

Program #: 7685-0101-202

iControl compatibility: 3.11 (build 51)

iControl Solo compatibility: 3.23 (build 26)

RCP-200 compatibility: NA

Hardware incompatibility: This firmware applies to all existing hardware assembly.

### 5.1. BUGFIXES

-

### 5.2. ENHANCEMENTS & NEW FEATURES

#### 5.2.1. Better compatibility with the new SMPTE 2016-1

To have a better compatibility with the new SMPTE 2016-1 standard, the posting of the AFD codes on the card edge interface has been modified.

Old codes	New codes
4:3_0	4:3_8
4:3_1	4:3_10
4:3_2	4:3_11
4:3_3	4:3_13
4:3_4	4:3_14
4:3_5	4:3_4
4:3_6	4:3_2
4:3_7	4:3_3
16 :9_0	16 :9_8
16 :9_1	16 :9_9
16 :9_2	16 :9_11
16 :9_3	16 :9_14
16 :9_4	16 :9_13
16 :9_5	16 :9_15

### 5.3. KNOWN BUGS & LIMITATIONS

#### 5.3.1. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

**WORKAROUND:** After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

**NOTE:** You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

## 5.3.2. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

## 5.3.3. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

## 5.3.4. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

## 5.3.5. Wrong CRC value in the inserted VLI

When inserting VLI, the CRC generated has an invalid value.

## 5.3.6. Bad detection of VLI when generated by equipment other than AMX-1881

VLI generated by another AMX-1881 is detected but if the VLI is generated by another card it is not detected.

## 5.3.7. Possible audio corruption when changing audio delay

Changing audio delays, may introduce a corruption of the audio data.

**WORKAROUND:** Change the audio delay once or twice should correct the problem.

---

5.3.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data

## 6. FIRMWARE VERSION: 102

Release date: 2005-08-12

ECO/NCO #: 685-99A01-301, 685-99A01-201

Program #: 7685-0101-102

iControl compatibility: 3.11 (build 51)

iControl Solo compatibility: 3.23 (build 26)

RCP-200 compatibility: NA

Hardware incompatibility: This firmware applies to all existing hardware assembly.

### 6.1. BUGFIXES

#### 6.1.1. Dolby metadata

Dolby metadata insertion standard has changed.

#### 6.1.2. Possible video corruption

Possible video corruption with change of temperature and voltage.

### 6.2. ENHANCEMENTS & NEW FEATURES

#### 6.2.1. User configuration loaded on GPI

GPI mode allowing to load user configuration on AMX card.

#### 6.2.2. Factory default line selection for AFD

	SD-525	SD-625	1920x1080@59.94i	1920x1080@50i
FIELD1	NA	NA	11	11
FIELD2	NA	NA	11	11

### 6.3. KNOWN BUGS & LIMITATIONS

#### 6.3.1. Firmware update issues with CPU\_ETH1

When updating the card's firmware in a Densité frame equipped with a CPU\_ETH1 controller, the MIU (Miranda Interface Updater) software will report an upgrade failure at the end of the process. But in fact, the firmware upgrade has worked but the card cannot communicate with the outside world (neither through iControl nor the local menu on the Densité frame).

**WORKAROUND:** After the firmware upgrade, re-slotting the CPU\_ETH1 controller to restore communication with the AMX card.

**NOTE:** You must make sure that only ONE network connection is made to the CPU\_ETH1. Multiple connections are not reported by CPU\_ETH1 and they will really cause a failure of the upgrade.

## 6.3.2. SMPTE-2016 AFD not supported in SDTV

Aspect ratio meta-data only supported through VLI standard.

## 6.3.3. Aspect ratio meta-data not supported in SD-625

Aspect ratio not supported in SD-625: neither WSS (Wide Screen Signaling) nor VLI or SMPTE-2016.

## 6.3.4. NOT all Aspect Ratio codes are supported

The codes supported are:

4:3	16:9
4:3_2	16:9_8
4:3_3	16:9_9
4:3_4	16:9_11
4:3_8	16:9_13
4:3_10	16:9_14
4:3_11	16:9_15
4:3_13	
4:3_14	

## 6.3.5. Wrong CRC value in the inserted VLI

When inserting VLI, the CRC generated has an invalid value.

## 6.3.6. Bad detection of VLI when generated by equipment other than AMX-1881

VLI generated by another AMX-1881 is detected but if the VLI is generated by another card it is not detected.

## 6.3.7. Possible audio corruption when changing audio delay

Changing audio delays, may introduce a corruption of the audio data.

**WORKAROUND:** Change the audio delay once or twice should correct the problem.

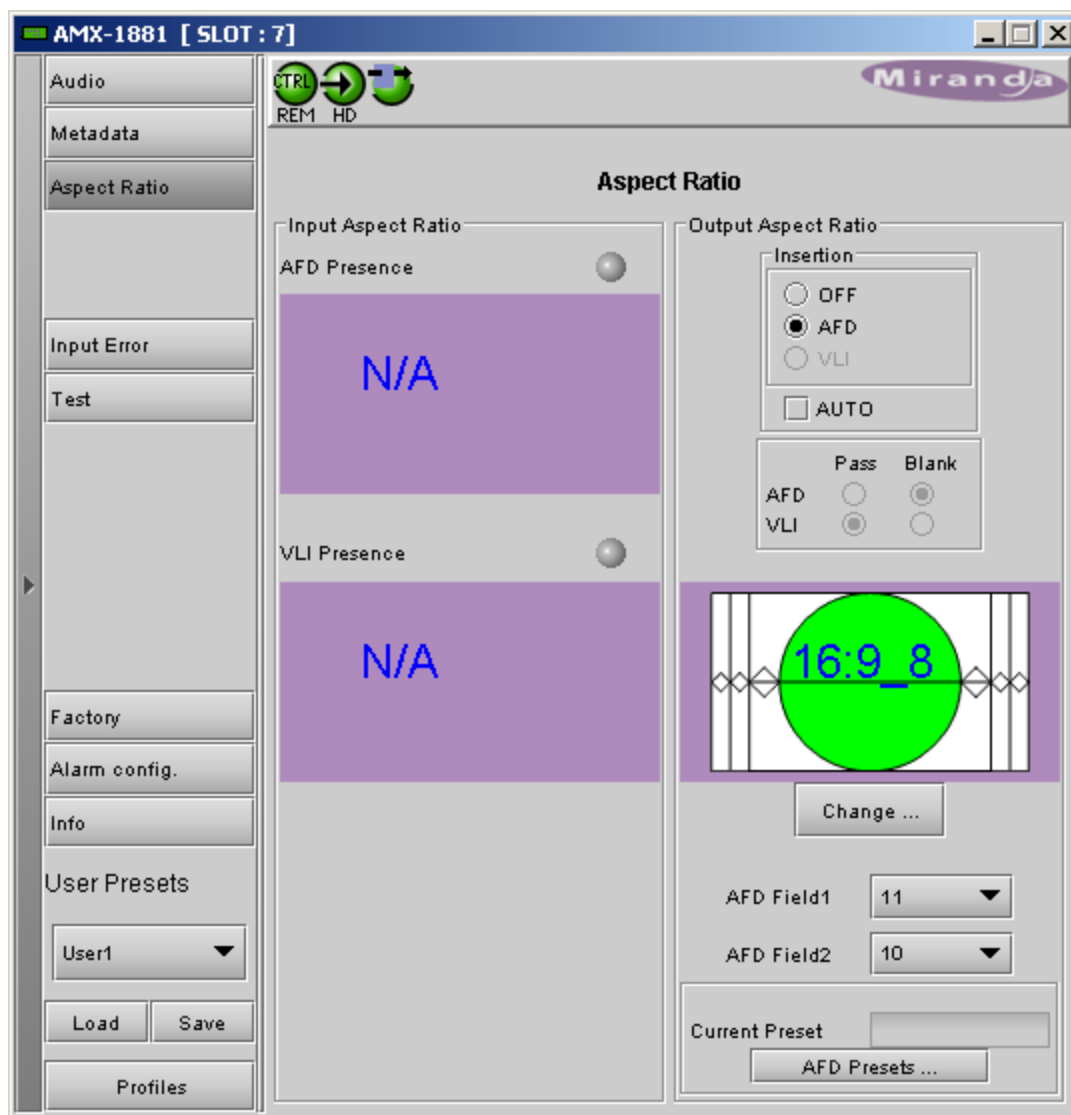


---

6.3.8. When switching between SD and HD, possibly use wrong insertion line for Dolby meta-data

## 7. APPENDIX A: iControl panels for AFD

### 7.1. FOR FIRMWARE 217 AND 215



## 7.2. FOR FIRMWARE 207, 205 AND 102

