

Integra[®]

by



Integra DSP AMX Driver

User Guide

Device Configuration

Configure your device as per the manufacturer's instructions. To find a copy of the user manual for your device, select your model from the manufacturer's website here: <https://integrahometheater.com/>

If using IP it is recommended that you use a static IP address for the DSP.

In order for the AMX driver to work when the device is in standby, please ensure that the device **Power Management** settings are set to one of the following options so that the driver can still control the device (e.g. to power it back on):

- Audio
- Trigger
- Network Only

These settings are found on the device webpage under **Settings > Power Management**.

Driver Commands

The driver allows control of the DSP. Commands to set the device power, zone source, and zone volume/mute are available.

When using zone commands please note the following:

- If a zone is configured as a stereo pair (e.g A-B, C-D) only use the commands/signals for the first in the pair (e.g. `ZONE_A_VOLUME` for zone A-B, `ZONE_C_VOLUME` for zone C-D).
- If a zone is configured as mono, use the commands/signals for the zone as you would normally (`ZONE_A_VOLUME`, `ZONE_B_VOLUME`....)

In addition, when selecting an input for a zone please note the following:

- If an input is configured as a stereo pair (e.g Analog 3L + 4R) only use the commands/signals for the first input in the pair (e.g. `ZONE_A_INPUT_1` or `ZONE_A_INPUT_3` to select Analog stereo inputs 1L + 2R or 3L + 4R).

- If a zone is configured as mono, use the commands/signals for the zone as you would normally (ZONE_A_INPUT_1, ZONE_A_INPUT_2....)

Features

This driver provides the following functionality.

- Connection Status.
- Power Controls and feedback.
- Stereo/Mono Input/Output stereo pair status.
- Input Clipping
- Zone/Input Signal Level.
- Zone Audio Control.
- Switching Functionality.
- Mixer input level adjustment.

Driver Installation and Configuration

Please reference the demo program and touch panel file for information regarding specific features of the driver.

To configure the driver update the following parameters in the `define_module` for the driver:

```
define_module integra_dsp_Comms' amp1 (vdvAmp ,  
dvAmp , ampIpAddress , vdvDebug)
```

- Module ID - `amp1` : Ensure this is unique if you have multiple drivers of the same type in your system
- `vdvAmp` : Virtual device for Amp controls
- `dvAmp` : IP port for control.
- `ampIpAddress` : IP Address of Amp.
- `vdvDebug` : Virtual device for debugging (Support tool only).

Switching Commands

To preform a switch on the device send the following command to the `vdvAmp` device:

```
SW [Output]=[Input];
```

[Output] = Output ID of switch.

[Input] = Input ID of switch.

The Switch ID's are as follows

Switch Inputs

inAnalog1 = 1;

inAnalog2 = 2;

inAnalog3 = 3;

inAnalog4 = 4;

inSpdif1 = 5;

inSpdif2 = 6;

inMix1 = 7;

inMix2 = 8;

inMix3 = 9;

inMix4 = 10;

Dante Enabled Amps Only

inDante1 = 11;

inDante2 = 12;

inDante3 = 13;

inDante4 = 14;

8 Analogue Input Amps Only

```
inAnalog5 = 15;  
inAnalog6 = 16;  
inAnalog7 = 17;  
inAnalog8 = 18;
```

Switch Outputs

```
outZoneA = 1;  
outZoneB = 2;  
outZoneC = 3;  
outZoneD = 4;
```

8 Zone Amps Only

```
outZoneE = 5;  
outZoneF = 6;  
outZoneG = 7;  
outZoneH = 8;
```

E.G.

```
SW 1=1;
```

To switch Analog 1 to Zone A.

When the switch is complete the switch string is returned to the vdvAmp device as a string.

Mixer Levels

Mixer control is done via level controls. There is a level for control and one for feedback. Due to the number of levels required this has been split over ports on the virtual device.

The level ids are as follows.

Mix 1

Port on Virtual device - 2

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 2

Port on Virtual device - 3

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 3

Port on Virtual device - 4

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 4

Port on Virtual device - 5

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 5

Port on Virtual device - 6

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 6

Port on Virtual device - 7

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 7

Port on Virtual device - 8

Level Controls - $200 + \text{Input ID}$.

Feedback levels $250 + \text{Input ID}$.

Mix 8

Port on Virtual device - 9

Level Controls - 200 + Input ID.

Feedback levels 250 + Input ID.

Mixer control Example

If you wanted to control analogue input 2 (input id 2) on mixer two the control level would be 202 and feedback level would be 252 on port 3 of the virtual device.

Driver Channels

Driver Connected = 1;

Device Power feedback = 2;

Device Power Control = 3;

Input AB in stereo = 4;

Input CD in stereo = 5;

Zone AB in stereo = 6;

Zone CD in stereo = 7;

Zone EF in stereo = 8;

Zone GH in stereo = 9;

Input EF in stereo = 10;

Input GH in stereo = 11;

Support

If you require support for this driver please fill in a support request at

<https://janustechtechnology.co.uk/support/>

Please ensure you provide the following information.

- Driver version you are using.
- Firmware version of your Integra DSP.
- Firmware version of your processor.
- A full description of the issue you are having and how to recreate the issue.

Troubleshooting

- Confirm that correct IP address is entered in the module configuration.
 - Check the Integra DSP can be pinged from the control system controller. If the ping fails check your network configuration and cabling.
 - For IP devices we recommend using a static IP address. Ensure this is done in either the device or router.
-

Change Log

Date 16th Nov 2024 - Version - v1.2.2

Enhancements

- Add Model Name

Date 5th July 2024 - Version - v1.2.1

Version

- AMX NI2000 - 3.60.453

Enhancements

- Changed Model Name

Bug Fixes

- N/A

Exceptions

- N/A

User Impacted

Date 8th December 2023 - Version - v1.2.0

Version

- AMX NI2000 - 3.60.453

Enhancements

- Added new Models

Bug Fixes

- N/A

Exceptions

- N/A

User Impacted

Date 8th December 2023 - Version - v1.1.0

Version

- AMX NI2000 - 3.60.453

Enhancements

- Added 8 Zone Amps
- Added Dante
- Added 4 Mixes for 8 zone amps
- Updated documentation to reflect changes.

Bug Fixes

- N/A

Exceptions

- N/A

User Impacted

- inputDynSignal updated to : { 71 , 72, 73 , 74 , 75 , 76 , 77 , 78 , 79 , 80 , 81 , 82 , 83 , 84 }
- Mixer level ID's have been moved to different ports to accommodate more mixers. See documentation for more information.

Date 9th July 2023 - Version - v1.0.0

Version

- AMX NI2000 - 3.60.453

Enhancements

- Initial Release

Bug Fixes

- N/A

Exceptions

- N/A

User Impacted

- N/A