

AXA – VP850

**4 Source x 4 Zone
Integrated Amplifier**

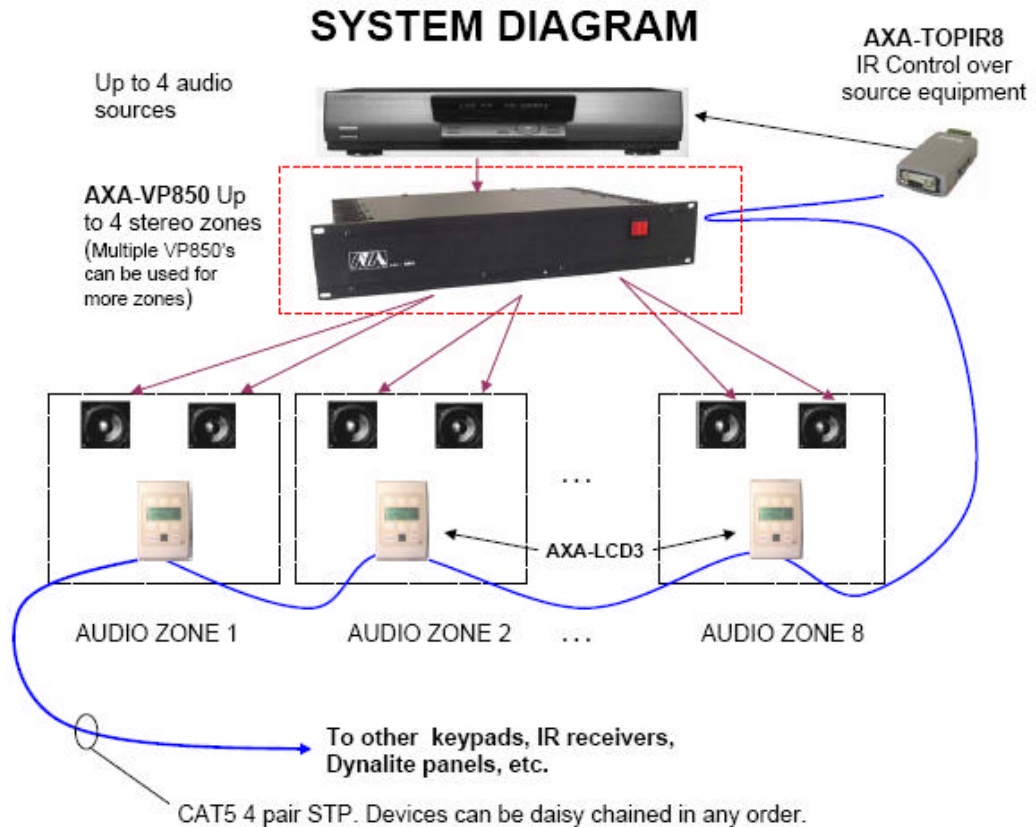


**Product Operation
Manual**

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1.0 Device Overview

The VP850 is a 4 stereo source and 4 stereo zone audio distribution amplifier. The VP850 provides 8 channels of 50W RMS into 4 Ohm or 32W RMS into 8 Ohm amplification. The VP850 is housed in a 2RU 19 inch anodized aluminium and steel rack case. The AXA-LCD3 keypad can be used along with any Dynalite™ keypad or touch screen to control the AXA-VP850.

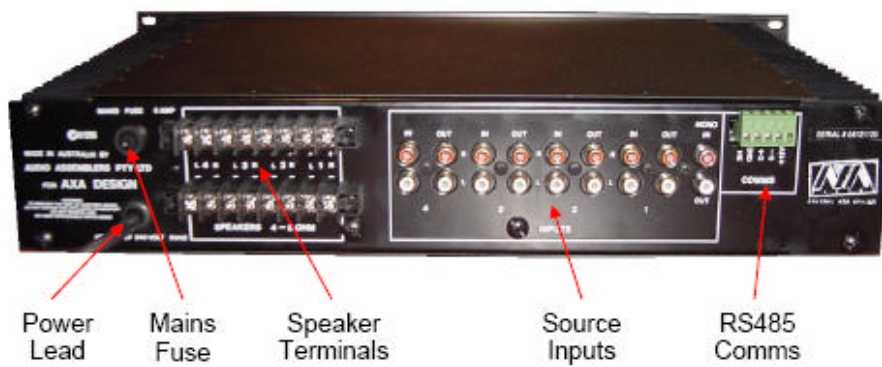


2.0 System Connections and Features

Front



Rear



3.0 System Requirements

1. DyNet connection for control
2. Audio Source Inputs
3. Connections to speaker zones
4. 240V 50Hz Mains Power

4.0 System Setup

1. Make sure the system requirements have been met.
2. Connect DyNet to the RS485 port (shown in system connections).
3. Connect zone speakers and input sources.
4. Connect Mains Power and make sure the amplifier is switched on.

NOTE – Master Power Switch will only be illuminated while the amplifier is in use. If the volume is at 0% in all zones for 3 minutes the amplifier will go into standby and the power switch will not be illuminated.

4.1 *Factory Setup*

The AXA-VP850 is set up with DyNet area numbers of 101, 102, 103 and 104.

Input 1 is preset 1

Input 2 is preset 2

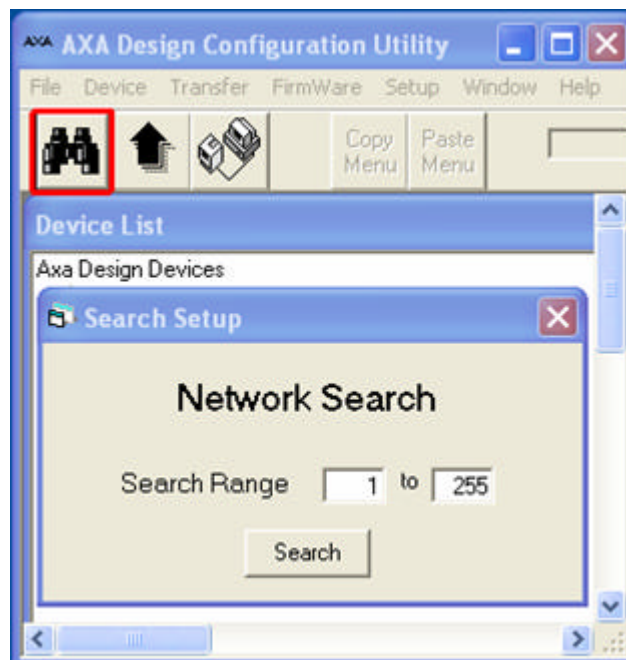
Input 3 is preset 3

Input 4 is preset 4

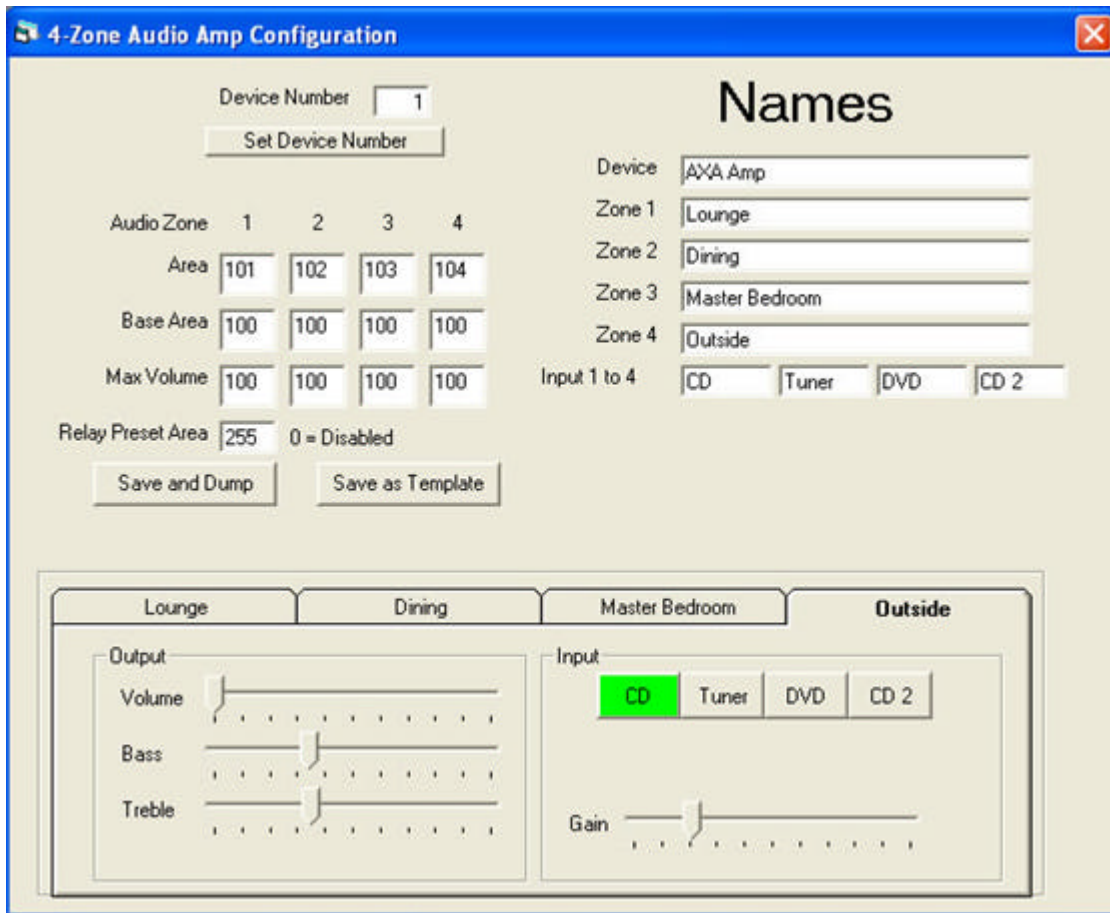
4.2 AXA Design Configuration Software

To setup the AXA-VP850 please follow the following steps:

1. Open the AXA Design Configuration Utility and click the search (Binoculars) button in the top left corner of the utility (see screenshot).
2. Enter in the search range for the device and click search.
3. All found devices will appear in the Device List.



4. Double click on the AXA-VP850 to open the **configuration box**.
5. The **box number**, **areas** and associated **names** can be entered.
6. The **base area** is used to combine areas (zones). In the example screenshot shown, **base area 100** will provide master control over all 4 Audio Zones.
7. Max volume can be used to limit the volume output in any or all zones.
8. The final step is to click **save and dump** to load the configuration to the device.
9. When prompted save the configuration for future use.



The AXA 4-Zone Audio Amplifier Configuration is used to setup the VP850 and also provide real time control over volume, bass, treble, input selection and gain for all 4 zones.

5.0 Specifications

AXA-VP850 System Specifications

Parameter		Unit
Input Impedance	47	K Ohm
Frequency Response	40Hz – 20kHz	
Input Level	1	Volt
Power Output - 8 channels (4 Ohm)		W RMS
Power Output – 8 channels (8 Ohm)		W RMS
Power Consumption	700	W
Colour	Black	
Dimensions	W – 482 H – 90 D - 375	mm
Weight	12	Kg

6.0 System Operation

The AXA VP850 is controlled using DyNet ‘preset’ messages for input selection and ‘channel level’ messages for gain/bass/treble/volume control.

Presets 1,2,3,4 - Audio Inputs 1,2,3,4

Channel 1 - Volume
Channel 2 - Bass
Channel 3 - Treble
Channel 4 - Gain

7.0 DyNet Messages

The DyNet messages used to control AXA-VP850 are listed with examples to simplify system setup.

Interface Use RS485, 9600, 8 bit data, 1 start bit, 1 stop bit, no parity. Idle between bytes to be < 1ms. Delay between Packets to be > 10ms.

Logical Message Protocol 8 byte packet, Checksum = Negative 8 bit 2's complement sum of bytes 1-7. All numbers in hexadecimal:

Select Current Preset

Byte 0: 1C hex

Byte 1: Area

Byte 2: Fade Rate low byte (0x64 default = 2 sec)

Byte 3: Preset: 0 = P1, 1 = P2, 2 = P3, 3 = P4

Byte 4: Fade Rate high byte (usually 0)

Byte 5: Bank

Byte 6: Join (usually FF hex)

Byte 7: Checksum

Example: Select Preset 4 in Area 220:

[1C] [C8] [64] [03] [00] [00] [FF] [B6]

Report Preset

Byte 0 1C hex

Byte 1 AREA

Byte 2 PRESET NUMBER: 0 = P1, 1 = P2, 2 = P3, 3 = P4

Byte 3 62 hex

Byte 4 Unused (usually 0)

Byte 5 Unused (usually 0)

Byte 6 Join (usually FF hex)

Byte 7 Checksum

Example: Area 200 is currently on Preset 2:

[1C] [C8] [01] [62] [00] [00] [FF] [BA]

Request Channel Level (sent to request volume level)

Byte 0 1C hex

Byte 1 AREA

Byte 2 CHANNEL NUMBER (0 origin)

Byte 3 61 hex

Byte 4 Unused (usually 0)

Byte 5 Unused (usually 0)

Byte 6 Join (usually FF hex)

Byte 7 Checksum

Example: Request Level of Channel 1 (Area 200):

[1C] [C8] [00] [61] [00] [00] [FF] [BC]

Report Channel Level

Byte 0 1C hex

Byte 1 AREA

Byte 2 CHANNEL NUMBER (0 origin)

Byte 3 60 hex

Byte 4 Target LEVEL (01 = 100%, FF = 0%)

Byte 5 Current LEVEL (01 = 100%, FF = 0%)

Byte 6 Join (usually FF hex)

Byte 7 Checksum

Example: Report that Channel 1 (Area 200) Target Level is 58% & Current Level is 58%:

[1C] [C8] [00] [60] [70] [70] [FF] [DD]

Ramp channel (used for volume up/down)

Byte 0 1C hex

Byte 1

AREA

Byte 2 Channel Number (0=input vol. 1=master vol.)

Byte 3 0x68 is target level 0% volume and 0x69 is target level 100%

Byte 4 0x00

Byte 5 Ramping Rate

Byte 6 Join (usually FF hex)

Byte 7 Checksum

Example: Fade Area 200 Master Volume to 100% over 6 sec:

[1C] [C8] [01] [69] [00] [3C] [FF] [77]

Stop Ramping (stops the volume during fade)

Byte 0 1C hex

Byte 1 AREA

Byte 2 Channel Number (0=input vol. 1=master vol.)

Byte 3 0x76

Byte 4 Unused (usually 0)

Byte 5 Unused (usually 0)

Byte 6 Join (usually FF hex)

Byte 7 Checksum

Example: Halt the Fade of master volume area 200 at the current level:

[1C] [C8] [01] [76] [00] [00] [FF] [A6]

8.0 Contact Details

Postal and Delivery Address

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9.0 Disclaimer

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