

# AVD4.6

## Installation Guide



Jamo®

## Important safety information

**Before installing cables or the Jamo AVD4.6 system it is important that you check and comply with all building regulations or codes applicable to your area. If you are in any doubt contact your local building regulations/code office and/or seek professional advice.**

**Read instructions** - All the safety and operating instructions should be read before the AVD4.6 system is operated.

**Keep instructions** - The safety and operation instructions should be kept for future reference.

**Heed warnings** - All warnings on the product and the operating instructions should be adhered to.

**Follow instructions** - All operating and use instructions should be followed.

**Cleaning** - Unplug all system components from the wall outlet before cleaning any part of the system. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

**Attachments** - Do not use attachments which are not recommended by the manufacturer as they may cause hazards.

**Water and moisture** - Do not install the AVD4.6 modules and power supply near water, for example, near a bath tub or sink; in a wet basement, or near a swimming pool etc.

**Accessories** - Do not install any part of the system on an unstable surface, stand, bracket or table. The product may fall, causing serious injury to a child or adult, and may damage the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory if recommended by the manufacturer.

**Ventilation** - Slots and openings in cabinets/enclosures are provided for ventilation and to ensure reliable operation of the product and to protect them from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a soft surface. The AM4.6 should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to. For all components, the manufacturer's instructions on ventilation must be adhered to.

**Power Sources** - The PS24 should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

**Grounding or Polarization** - In some countries the PS24 may be equipped with a polarized mains plug (a plug having one pin wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

**Power-Cord Protection** - Power cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, mains sockets/outlets, and the point where they exit from the product.

**Protective Attachment Plug** - In some countries product may be equipped with a plug having overload protection (fuse). This is a safety feature. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.

**Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning or power-line surges.

**Overloading** - Do not overload wall outlets, extension cords, or integral mains sockets/outlets as this can result in a risk of fire or electric shock.

**Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**Servicing** - Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to an authorized service agent.

**Damage Requiring Service** - Refer any part of this system requiring service to an authorized Jamo service agent only.

**Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## Congratulations

### Congratulations on your new Jamo AVD4.6 distribution system.

The many different options and features of your new audio and video\* distribution system will be a source of pleasure for you for many years to come.

The Jamo AVD4.6 system is a distributed, multi-room home entertainment system capable of delivering high quality audio and video to multiple rooms and locations in your home.

After it is installed, you have access to all your centrally located audio and video equipment through stylish wall-mounted control panels or remote controls from each location with a control panel installed. Sound is delivered to in-wall or ceiling speakers (or conventional speakers if preferred) and video is delivered to televisions or monitors.

\*Video distribution requires the optional VM4.6 module installed.

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## Planning your system

Detailed advanced planning should be done before installing the AVD4.6 system. It is therefore strongly recommended that the complete instructions are read before starting any installation.

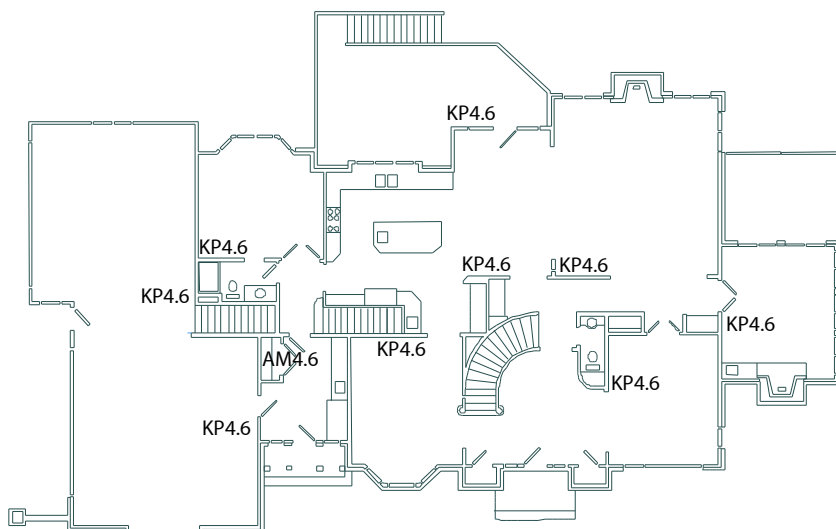


Fig. 1

### AM4.6

The main module (AM4.6) should be located close to the source components. This gives two location options.

1. Locate the AM4.6 and source components in a convenient location with adequate ventilation such as a closet, utility room, cabinet or other. Fig.1.

2. It is possible to feed the signal from source equipment through the AM4.6 to existing hi-fi or surround amplifier while at the same time distributing the signal to the rest of the home. This is done by connecting the source equipment to the AM4.6 and take the signal from the six Loop Out sockets to the amplifier/receiver in the system. For this configuration the AM4.6 should be located behind the existing system.

The AM4.6 can be mounted either horizontally or vertically. It is powered by the dedicated power supply PS24. Try to use the same mains outlet to power both the AM4.6 and the source equipment.

### VM4.6

The VM4.6 video switching module works together with the AM4.6 to send video signals to all connected zones via RG6 or other coaxial cables. Up to 6 video sources and a CCTV may be connected and distributed.

Video source equipment can be routed from the six Loop Out socket on the VM4.6 to the receiver in a home theater system using phono/RCA cables designed for video use. Both AM4.6 and VM4.6 can therefore be added into an existing system.

The VM4.6 can be mounted horizontally or vertically and power is provided via a CAT5e cable from the AM4.6.

### KP4.6

Each zone is controlled by a KP4.6 wall unit. They should be located in a convenient location in each zone. Fig. 1.

A KP4.6 can be used as either a main zone or a sub-zone controller. A sub-zone must listen to/watch the same source as the main zone it is associated with, however it has independent volume, bass, treble, balance and fader adjustments.

The KP4.6 has a line level pre-amp output for connection of an extra amplifier if needed in a zone, or to connect an active subwoofer in that zone.

See the manual supplied with the KP4.6 for complete installation instructions.

### CCTV Connection

A CCTV camera can be connected to your Multi-Room distribution system. See page 9 for details. Extra cables will be required in addition to the listed cables under the pre-installation phase.

## Pre-installation

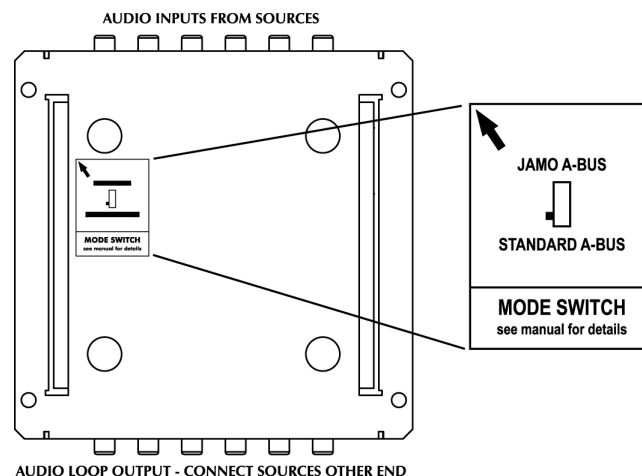
Please read all of these instructions before mounting any products or installing any wires and cables.

### AM4.6

**IMPORTANT.** The AM4.6 can be switched between Jamo A-BUS or standard A-BUS mode. The Jamo A-BUS position is used with the Jamo KP4.6 keypad and gives extra functions. When used with other A-BUS keypads it should be set to Standard A-BUS or they will not work. The switch is located on the rear of the AM4.6.

The AM4.6 should be mounted on a hard surface. Do not mount on a carpeted surface as this may limit the airflow through the unit. It should be located within 10 feet from a power outlet.

It should not be located close to any product or installation which produces excessive electrical noise as these could interfere with the AM4.6. These could be dimmer racks etc.



### VM4.6

Install the VM4.6 within 15 feet from the AM4.6. The same surface instructions as the AM4.6 should be followed as well as the consideration of electrical noise sources.

### Wiring and Cabling

Install a single-gang 2" or deeper J box or a P ring at each KP4.6 location. If using a J box all knock outs must be removed to provide ventilation.

Run a CAT5e cable from the AM4.6 to each KP4.6 location.

Run two speaker wires from the KP4.6 location to the speaker locations for that zone.

For video distribution (optional) run RG6 or other coaxial cable from the VM4.6 to the TV/Monitor location. It can be terminated directly to the TV/Monitor or to a suitable wall plate fitted with a co-axial connector.

CAT5e cables should be run through conduits whenever possible, however when not available or practical special care should be taken not to install the cable close to sharp edges and avoid risk of kinking or trapping. Do not over tighten cable ties. Similar precaution should be taken to installation of speaker wires.

Make sure and re-check that the color code on the CAT5e cable connections are correct.

### KP4.6

The KP4.6 should be located around 55" off the floor and 10-15" from door frames or wall edges, taking into account the location of light switches etc. It should not be located where exposed to direct sunlight as this can interfere with the infra-red sensor.

The KP4.6 should be installed in a single-gang 2" or deeper J box or in a P ring.

The CAT5e cable is connected to the KP4.6 at the color coded 8-way screw terminal on the rear.

Speaker wires are connected to screw terminals on the rear of the KP4.6.

See the manual supplied with the KP4.6 for complete installation instructions.

## Audio connections

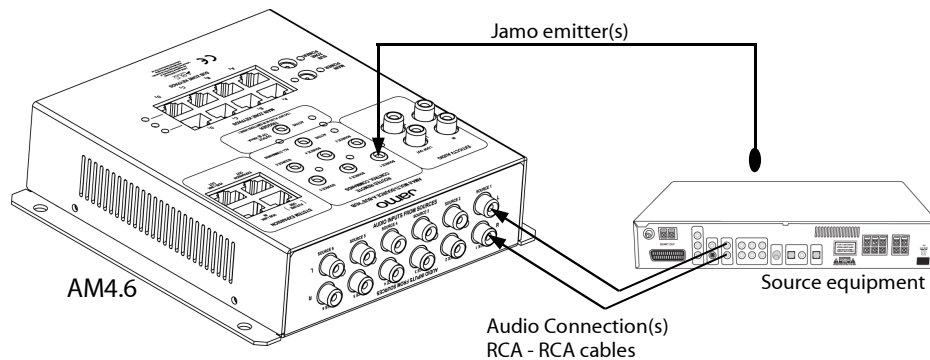


Fig. 2

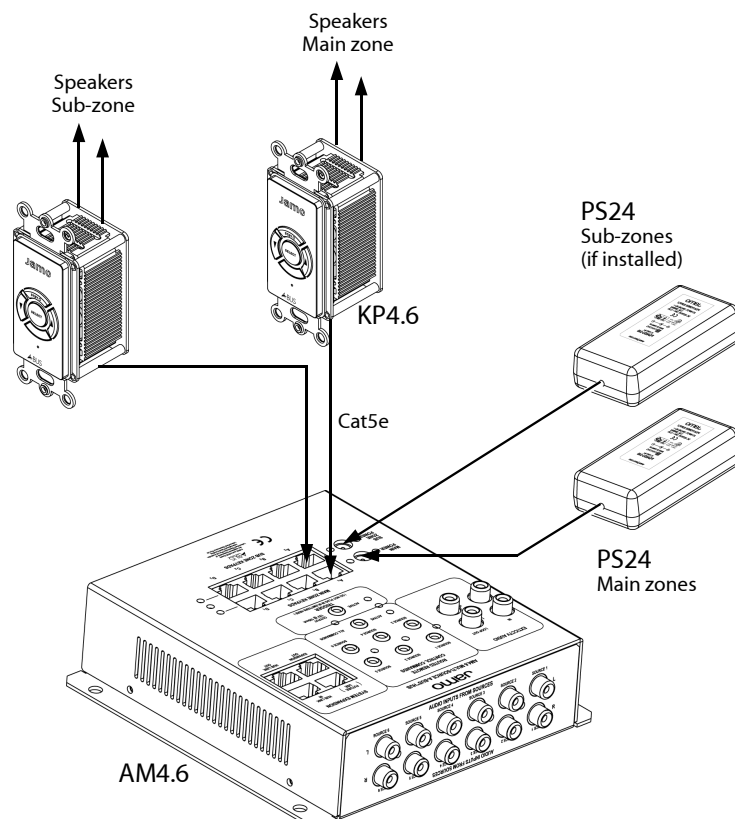


Fig. 3

### Audio Source Connections

It is possible to connect a total of six audio source components to the AM4.6. The connections are made from a line level output on the source equipment to one of the six inputs on the AM4.6 using RCA to RCA cables.

### Remote control

The source equipment can be remote controlled from all main and sub-zones with the remote control supplied with the source equipment.

An IR emitter is used for each source component. The IR emitter is plugged in to the appropriate IR output on the AM4.6 and the emitter itself is stuck onto the source equipment in front of the receiving sensor.

The ALL COMMANDS sends remote signals from any remote control, and not only from the remote control associated with the source selected.

Two Jamo IF5 emitters are included with the AVD4.6 system.

### PS24 to AM4.6

Each AM4.6 requires one PS24 for the four main zones. In addition it needs another PS24 if any sub-zones are connected. Fig. 2.

### KP4.6 to AM4.6

Each KP4.6 is connected to the AM4.6 using a CAT5e cable. It is plugged in to the AM4.6 using an RJ45 plug, and connected to the KP4.6 via a 8-way color coded screw terminal.

Main zones and sub-zones are determined by choosing a main zone or sub-zone socket on the AM4.6.

### KP4.6 to Loudspeakers

Use a pair of high-quality speaker cable to connect the KP4.6 to any pair of in-wall, ceiling or other suitable speakers.

See the manual supplied with the KP4.6 for complete installation instructions.

## Video connections

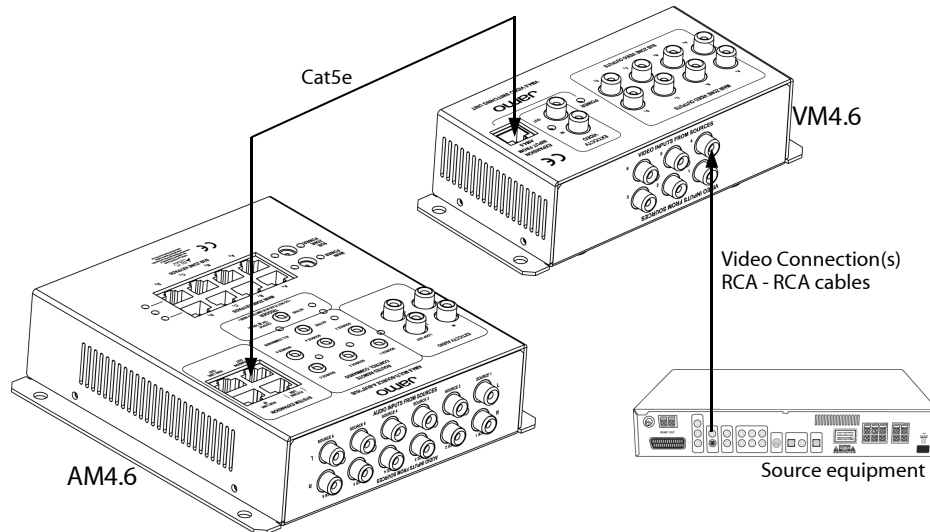


Fig. 4

### Video Source Connection

A total of six video sources may be connected to the VM4.6.

The video output of the source equipment is connected to the RCA sockets on the VM4.6 labeled video inputs 1-6. Use quality 75 ohm coaxial cable with RCA plugs in each end.

The control signals are sent over the CAT5e cable as described below.

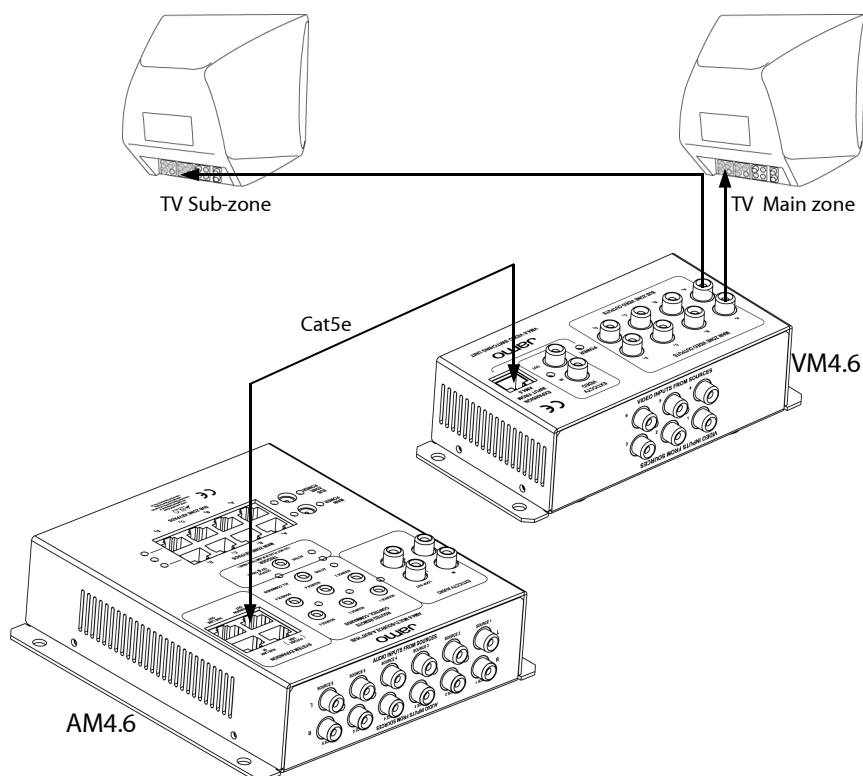


Fig. 5

### TV/Monitor Connection

If video distribution is also part of the system the VM4.6 is connected to the AM4.6 with a CAT5e cable.

The CAT5e cable is connected at both ends with an RJ45 plug to the expansion sockets. This provides power to the VM4.6 and input switching commands from the KP4.6 wall keypads or RC4.6 system remote control.

The TV/Monitors are connected with RG6 or other coax cable using RCA plugs to the main or sub-zone sockets on the VM4.6

## Linking modules

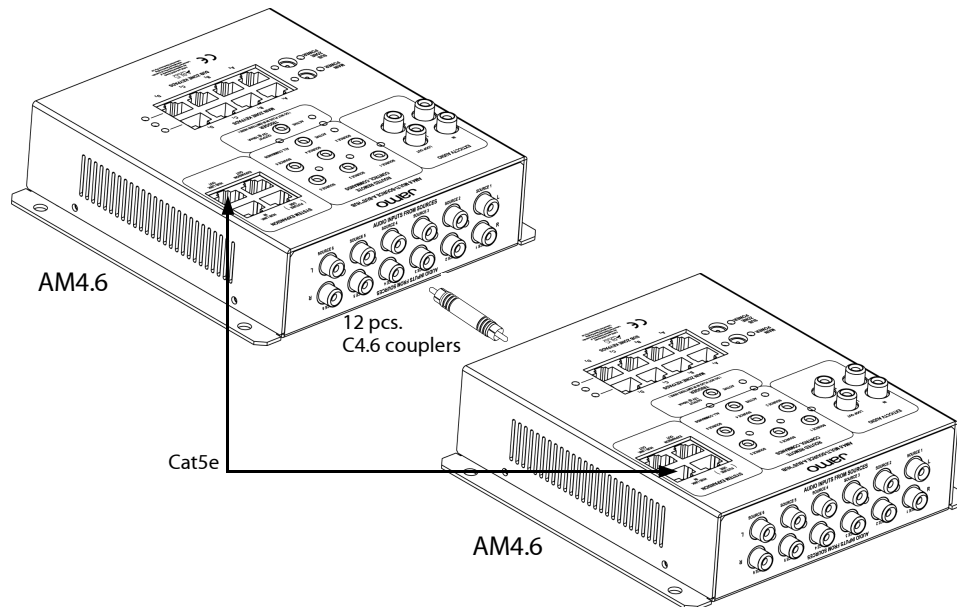


Fig. 6

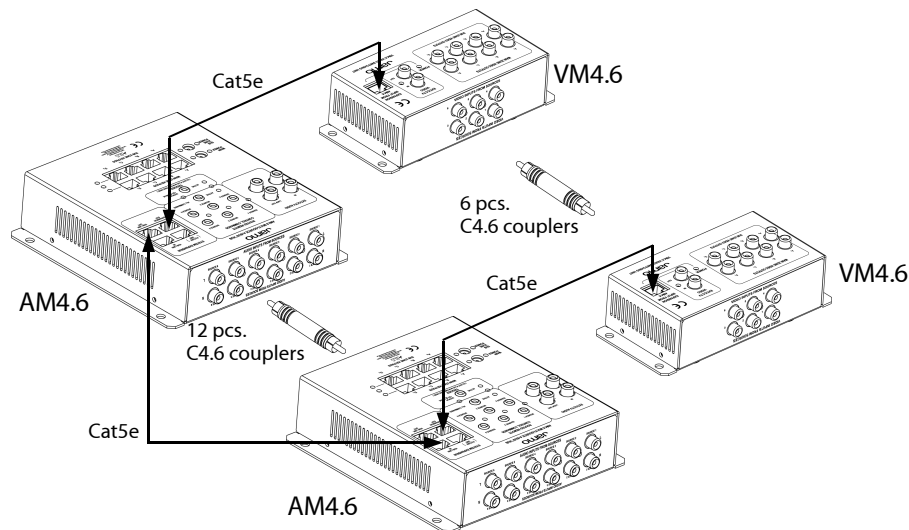


Fig. 7

### AM4.6 Linking

In an installation with more than 4 main zones and 4 sub-zones the linking facility of the AM4.6 is used.

The AM4.6's are linked with a CAT5e cable to the Hub Link in and out sockets on each AM4.6.

The audio signals from the source equipment can be shared by joining the AM4.6's using 12 pcs. Jamo C4.6 couplers. The couplers connect the loop outs of the first AM4.6 to the audio inputs of the second AM4.6. This makes it possible to access the same sources and distribute them to all main and sub-zones.

A maximum of four AM4.6 can be linked together to generate a total of 16 main zones and 16 sub-zones.

### VM4.6 Linking

The VM4.6 can be linked the same way as the AM4.6 if more than 4 main zones and 4 sub-zones are required.

To be able to provide power and switching commands each VM4.6 must be connected to a corresponding AM4.6 with a CAT5e cable.

The video signals can be shared and controlled the same way the audio signals are shared and controlled on the AM4.6s. Connect the loop out sockets on the first VM4.6 to the video inputs on the second VM4.6 using 6 pcs. Jamo C4.6 couplers.

As with the AM4.6 a maximum of four VM4.6 can be linked together for a 16 main zone and 16 sub-zone system.



## Advanced system options

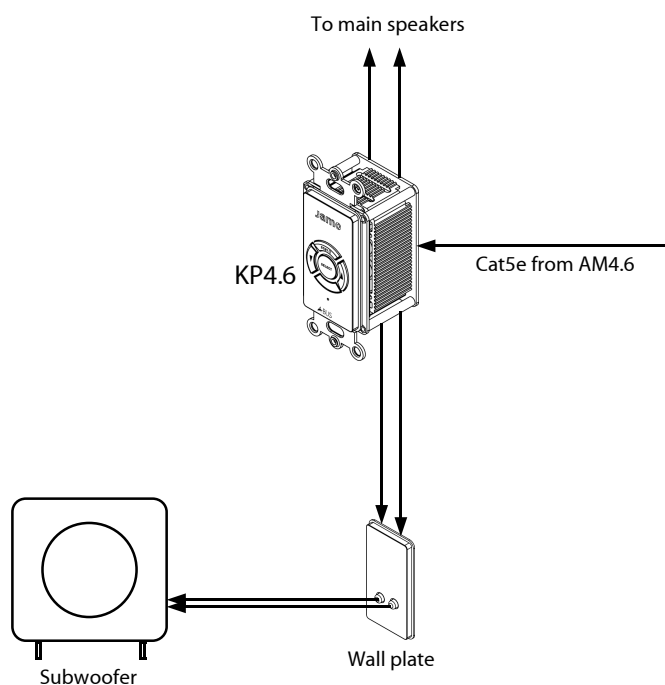


Fig. 8

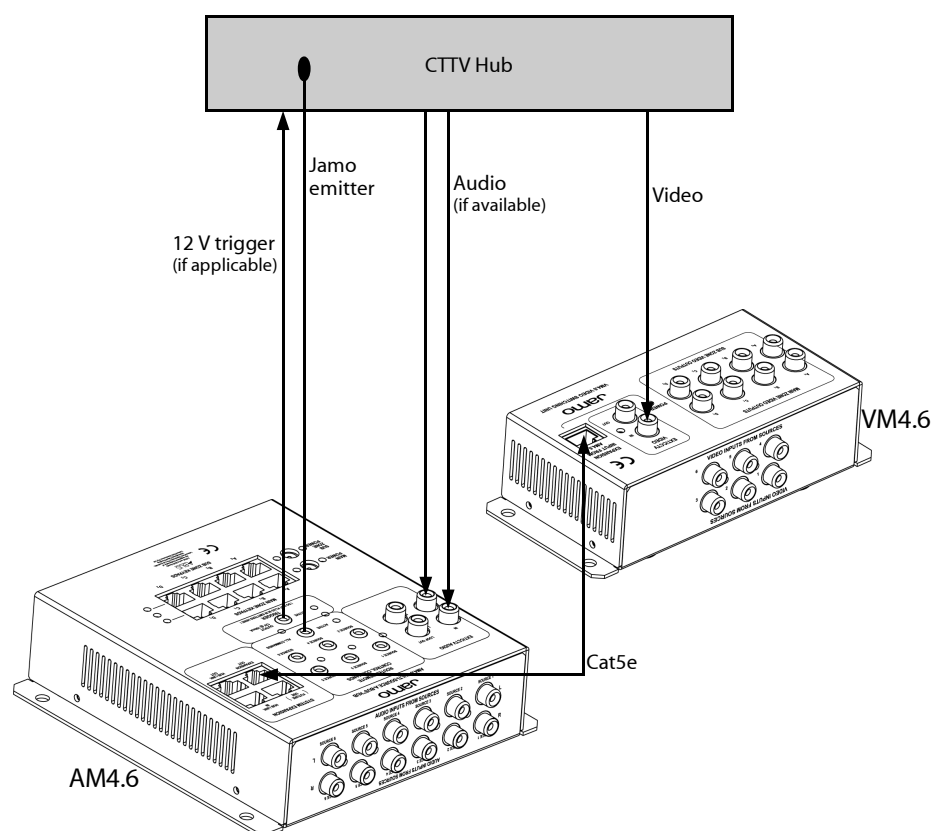


Fig. 9

### Amplifier or Subwoofer

The KP4.6 has a line level pre-amp output on the back for connection of an external amplifier if more power is required or connection of an active subwoofer (shown in Fig.8) to provide extra bass.

This makes it possible to use a local stereo or surround sound amplifier to play any source selected by the KP4.6 in that zone.

The KP4.6 has a fader function to balance the level between the speakers connected to the KP4.6 and the external amplifier or subwoofer.

Use high quality audio interconnect cables from the pre-amp out screw terminals to the external equipment.

### 12 Volt trigger

A 12 V trigger output on the AM4.6 can turn on external equipment (source or other) which has 12 V trigger input. Fig 9.

### CCTV Link

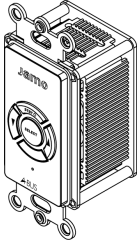
Inputs on the AM4.6 and VM4.6 make it possible to connect a CCTV (Closed Circuit Television/surveillance) camera to the AVD4.6 system.

The TV/monitor output from the camera is connected to the EXT/CCTV in on the VM4.6. Live video can then be seen in each zone with a TV or monitor installed.

The audio output (if available) from the camera is connected to the EXT/CCTV inputs on the AM4.6.

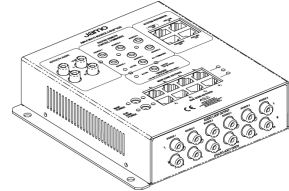
The camera can be remote controlled from any zone. Connect a Jamo infra-red emitter to the ALL COMMANDS output on the AM4.6 and stick the emitter over the IR receiver on the CCTV system.

## Specifications



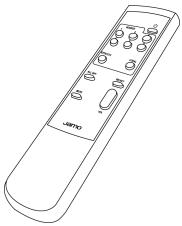
### KP4.6

20Hz - 20kHz frequency range  
 -80dB, 32 step volume control  
 +/- 16dB, 2db steps bass control  
 +/- 16dB, 2db steps treble control  
 +/- 40dB, 9 steps both ways balance control  
 34 - 40kHz & 54 - 58kHz modulation IR pass-through  
 Powered from AM4.6 via CAT5e cable  
 0.28 lbs



### AM4.6

6 source inputs  
 6 loop outputs  
 1 external input/loop output  
 4 main & 4 sub-zones  
 Max 16 main & 16 sub-zones  
 20Hz - 20kHz frequency range  
 12V @ 100mA trigger  
 24V DC required  
 6½" W x 6¾" D x 1 7/8" H  
 2.56 lbs



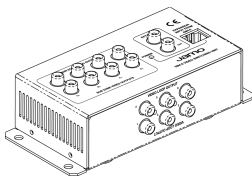
### RC4.6

2 AA alkaline batteries  
 1¾" W x ¾" H x 7" D  
 ¼ lbs (incl. batteries)  
 0.25 lbs



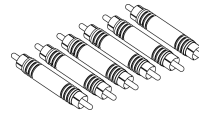
### PS24

100-240V AC 50/60Hz input  
 24V DC @ 2.5A output  
 80% efficiency  
 5% line/load regulation  
 6" W x 2¾" D x 1½" H  
 UL and CE approved  
 1.42 lbs



### VM4.6 (optional)

7 source inputs (6 + CCTV)  
 75 Ohm composite video in  
 10MHz video bandwidth  
 150 feet max cable to zone  
 75 Ohm coaxial cable to zone  
 Powered by AM4.6  
 6½" W x 3" H x 1¾" D  
 1.30 lbs



### C4.6 (optional)

1½" audio and video coupler  
 Sold in 6 pcs. Packs  
 0.29 lbs

## FAQs

### What equipment can be connected to the AVD4.6 system?

The Jamo AVD4.6 system is compatible with almost any type of audio and video equipment.

### What is the difference between a main zone and a sub-zone?

A sub-zone can only listen to/watch the same source as the main zone it is linked to. The sub-zone has independent power, volume and tone controls from the main zone.

### How many zones can the AVD4.6 serve?

Each AM4.6 can serve 4 main & 4 sub-zones. 4 AM4.6 can be linked together to serve a maximum of 16 main & 16 sub-zones.

### Can any CAT5e cable be used?

Yes, any type of CAT5e cable can be used.

### Can any speakers be connected to the KP4.6 keypad?

Any speaker with a 4 Ohm or higher impedance can be connected. All Jamo speakers are 4 Ohm or higher.

### How many remote controls can the system have?

There is no limit to the number of remote controls. If needed there could be a remote control in each zone.

### Where should KP4.6 keypads not be located?

Do not place the KP4.6 in direct sunlight or close to plasma screens. Also, do not place it close to devices that produce electrical noise like light dimmers.

### What is the maximum CAT5e cable length from the AM4.6 to the KP4.6?

The maximum length of CAT5e cable is 100 feet from the AM4.6 to the KP4.6.

### Is it possible to add video switching later?

Yes, however it is recommended to run the cables for video when installing the system to avoid cutting into walls later.

## Statement of Limited Warranty

Jamo loudspeakers and accessories are covered by a limited warranty in respect to manufacturing and equipment defects. Other claims are not covered. This warranty is a national warranty in accordance with relevant legislation. Period of the warranty is as stated below and is in effect from the date of purchase.

Customer sales slip with date of purchase is the only document needed for warranty claims.

Jamo warranty on all loudspeakers and accessories is seven (7) years except in-wall and in-ceiling loudspeakers, which carries Limited Lifetime Warranty. Electronics (receivers, amplifiers, screens, distribution systems, sub-woofer amplifier etc.) carries a two (2) year warranty.

Limited **Lifetime Warranty** for Jamo In-wall/In-ceiling Loudspeakers

Jamo US Inc. warrants to the original retail purchaser *only* that this Jamo product will be free from defects in materials and workmanship, provided the speaker was purchased from a Jamo Authorized Dealer.

Defective products must be shipped, together with proof of purchase, prepaid insured to the Jamo Authorized Dealer from whom they were purchased, or to Jamo US at the address listed on this installation instruction manual. Freight collect shipments will be refused. It is preferable to ship this product in the original shipping container to lessen the chance of transit damage. In any case, the risk of loss or damage in transit is to be borne by the purchaser. If, upon examination at Jamo US or the Jamo Authorized Dealer, it is determined that the unit was defective in materials or workmanship at any time during this warranty period, Jamo US or the Jamo Authorized Dealer will, at its option, repair or replace this product at no additional charge, except as set forth below. If this model is no longer available and can not be repaired effectively, Jamo US at its sole option, may replace the unit with a current model of equal or greater value. In some cases where a new model is substituted, a modification to the mounting surface may be required. If mounting surface modification is required, Jamo US assumes no responsibility or liability for such modification. All replaced parts and product become the property of Jamo US Inc. Products replaced or repaired under this warranty will be returned to the original retail purchaser, within a reasonable time, freight prepaid.

This warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the unit, or service, repair or modification of the product which has not been authorized or approved by Jamo. This warranty also excludes normal cosmetic deterioration caused by environmental conditions.

This warranty is in lieu of all other expressed warranties. If the product is defective in materials or workmanship as warranted above, the purchaser's sole remedy shall be repair or replacement as provided above. In no event will Jamo be liable for any incidental or consequential damage arising out of the use or inability to use the product, even if Jamo US Inc. or a Jamo US Inc. Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply.

All implied warranties on the product are limited to the duration of this expressed Warranty. Some states do not allow limitation on the length of an implied warranty. If the original retail purchaser resides in such a state, this limitation does not apply.



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