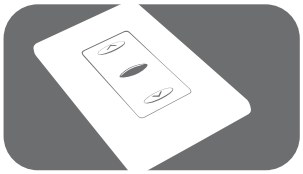
Volume Control Module
AB-20 / AB-39 / AB-44 / AB-46
& Local Input Module AB-70

Installation Guide / Warranty Information



Product Installation Overview

Volume Control Modules (VCM) are wall mounted room units connected to the hub or A-BUS/*READY* amplifier via a single Cat5 cable. The cable delivers high quality stereo audio signal at line level and supplies power for the amplifier and status control to activate the VCM or return it to Mute. A range of VCM's is available to suit individual room requirements. Most include infrared (IR) receivers to relay control commands to the source components from a remote. The IR facility can control the volume level by remote and multi-source hubs. It is our recommendation the AB-46 is used with the multi-source hubs. All VCM's drive one pair of 6-8 ohm speakers via a short run of speaker cable.

Please read these instructions and the instructions of your A-BUS hub carefully before installation.

Installation Volume Control Modules

It is recommended that your Volume Control Module be installed by a qualified installer to ensure that the installation is carried out correctly and it complies with all relevant installation regulations. It should not be installed within 100mm (4") of a high voltage device (eg. light switch) and the cable should not be run in parallel or within 100mm (4") of high voltage cables or data cables, etc. It is designed to fit onto a US single-gang plate and back box to match.

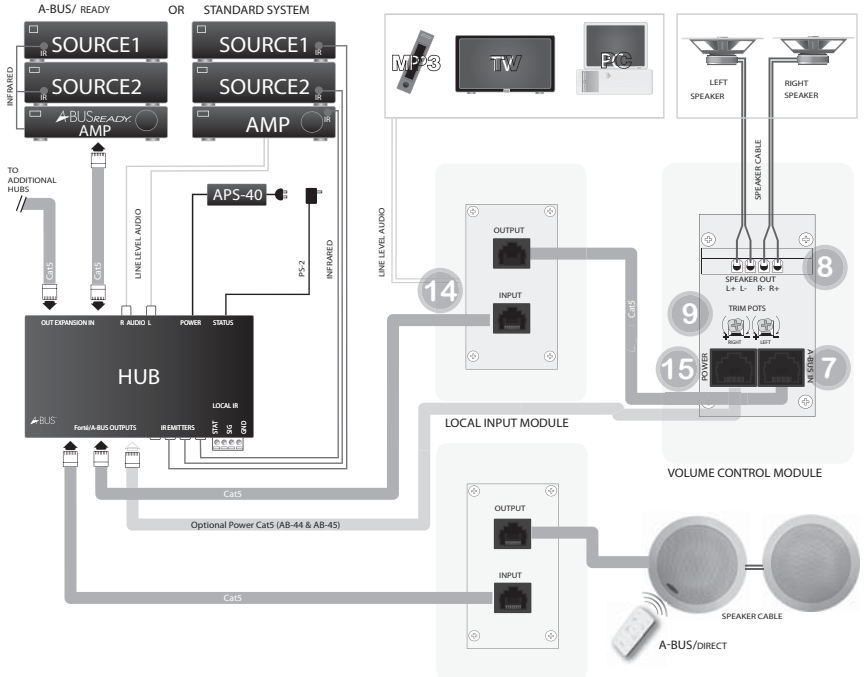
The Volume Control Module or A-BUS/*DIRECT* is connected to the hub via a single Cat5 cable. The Cat5 cable from the hub should be properly connected to [7], using a proper installation tool. RJ-45 connectors should be wired to the T568A standard. It is recommended that the Cat5 cable length be no longer than 30m (100ft); longer runs may induce noise and reduce sound quality. The speaker cable terminal [8] will accept up to 14 gauge cable. Note: The power supply should not be plugged in until all components have been connected.

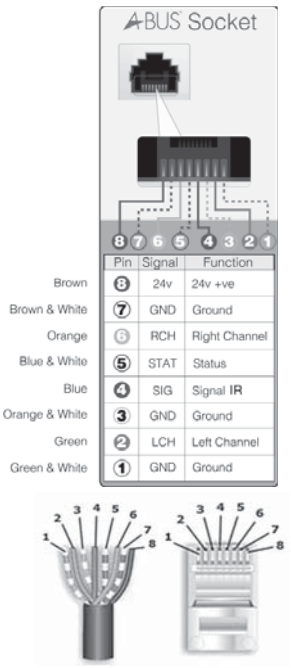
Set-up - Installation should be completed with all volume control modules connected but not installed into the walls. Follow these steps to give you maximum control flexibility over the volume of your Forté A-BUS system. On the back of the volume control modules there are trim pots (Left & Right) [9] that fine-tune the output level to compensate for the length of the cable run, the efficiency of the speakers and the size of the room. There are also situations where you may want to limit the output level in a particular room. With the trim pots adjusted to minimum, the main volume control should be adjusted to maximum level, then with popular music playing the trim pots should be brought up to a point just below the amplifier's clipping level. Clipping is the point where the sound starts to distort. When the trim pots are all set to the desired level the installation may be completed.

Mini Remote Control Handset AB-40RC (see back side)

The mini remote control handset supplied with some volume control modules, contains basic Forté A-BUS remote control commands, volume Up/Down [10] up to 4 individual input selections [11] Mute [12] and System Mute (Global) [13]. In good conditions this handset should have an operating range of up to 20m (70ft), in poor conditions such as bright sunlight it may be less than 5m (15ft).

ABR-43 Learning Remote Keypad with Cradle can also be used. Please refer to the ABR-43 Instruction Manual.





Fault Finding

- Most faults occur as a result of incorrect wiring.
- Check all connections carefully.
- Make sure all speakers are wired in phase.
- Disconnect volume control modules from hub and check operation one by one.
- A short in a line or incorrect wiring will cause the volume control module to shutdown until the fault is fixed.
- Status indicates the system is active. (LED indicator on IR models only)

Installation Local Input Module

The LIM [14] provides "local" input capability for sources such as TV, MP3, computer, etc. in the zone. The LIM automatically switches to the local input when a local source is detected. 30-seconds after the local source ceases, the LIM automatically reverts to the main input source. One Cat5 cable runs from the hub to the LIM location then to the room unit (VCM or A-BUS/DIRECT speaker). Please note in case of a TV as a LIM, Cat5 cable should run past the room's aerial point. Multiple LIMs can be wired in series per each room unit. The source closest to the room unit is the over ridding master.

The LIM can be used with audio devices with standard line level outputs - computers, Discmans and MP3 players. Care should be taken to make sure the output of these devices is the industry standard of 1 volt. Some audio cards in computers can have very low outputs requiring the card to be updated. Connecting to a variable output (headphone) may require the output to be at full level for correct operation; this may increase system distortion. The headphone output on Apple iPods is not suitable, correct iPod audio/video adaptor leads are available.

Note: In situations is where there is low sensitivity or in movies with protracted silent passages the LIM may revert to the main source prematurely. In these situations it is advised that the main source be switched to an input with no audio signal to avoid interruption.

Volume Control Module AB-46 Multi-Source

This Keypad Volume Control Module (VCM) has been designed to work with Forté A-BUS Multi-Source Hubs using standard A-BUS commands. It will operate with other single-source and multi-source hubs; however, some functionality such as source selection will not be required.

These functions can be accessed with an A-BUS remote control handset containing the correct codes.

Note: For comprehensive instructions please also refer to the instructions supplied with your Forté A-BUS multi-source hub.

Control Functions [1] [2] [3]

System ON - Single Source Hub and active audio source to activate the VCM's then if any function button is pressed the system will become active. Multi Source Hubs become active as soon as a source is selected.

Input Selection [1] - The system will restart on the last source selected. One of the four input LEDs [5] will indicate which input has been selected. The input can be changed by pressing left or right buttons [1].

Volume Level [2] - Initial start-up: A volume Up command will start the VCM at a low listening level. Single Source Hubs: When the VCM is in standby mode, tap the AB-44's "UP" button or the AB-46's "Power Button" [3] or "Volume" buttons on a remote control [12] the VCM will restart at the last level selected. Multi Source Hubs: When Global off is selected [13] on remote controls or a long push on AB-46 Off button (3)] the VCM's will reset to the start-up level. The AB-46 includes a jumper switch on the rear to enable restart at the last level selected before Global Off command or system restart. While the level is being adjusted, the input LEDs [5] will ripple left or right.

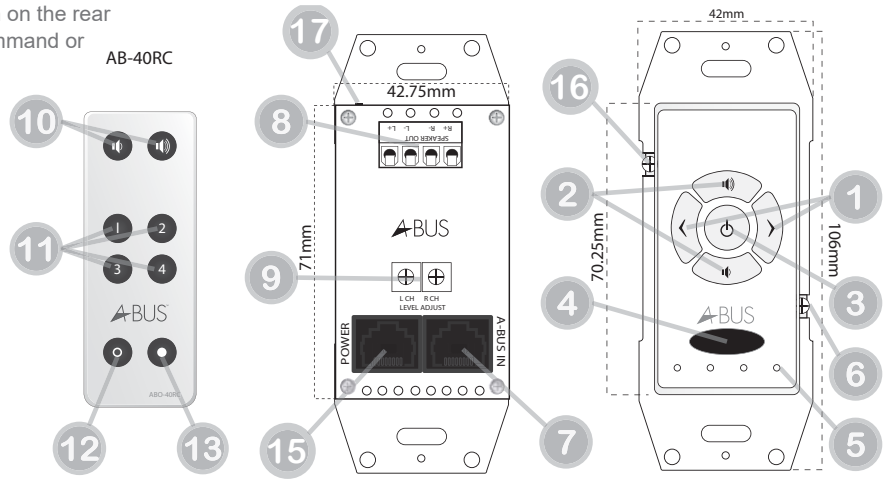
Remote Control [4] - The VCM may be operated by remote control. The IR remote must have clear line-of-site to the IR Receiver. The VCM can also relay IR remote control commands to the hub and connected source components. It will repeat standard 38 kHz commands and 56 kHz commands which are often used in satellite receivers. You may experience difficulty with some remote control commands on some components. The operating range can be affected by sunlight and some lighting systems.

Mute and Global Mute [3] - A VCM can be muted individually by pressing the mute button, this will turn off the backlighting to the volume control [2] and input selection buttons [1]. The backlighting of the mute [3] and input indicator will [5] remain on. If there are other VCM's connected to the same zone their status will not be affected. If the mute button [3] is pressed for more than three seconds the whole Forté A-BUS system will turn mute. When the system is muted the infrared relay will remain active.

Backlight Adjustment [6 & 16] - The backlighting level of the function buttons [1] [2] [3] and the source LED's [5] can be adjusted to individual requirements.

Aditional Power Socket (AB-44 & AB-46) [15] - For DE/HDE

Volume Start Jumper (AB-46) [17] - Return to last Volume (Left Jumpers) Volume reset (Right Jumpers - Default)



Features and Specifications

AB-20 VCM

Control Rotary Volume

Terminals	Input: Cat5 RJ45 T568A Output: screw terminal (up to 14 gauge)
Infrared Repeating	None
Status	None
Size with faceplate	75mm x 116mm x 47mm (WHD)

AB-39/AB-44 VCM

Infrared Repeating	38KHz and 56KHz
Nominal IR Range	In sunlight < 5M, Indoors > 20M
Status	(System ON) Indicated by red LED
Infrared Talkback	LED Flashes when in use
Terminals	Cat5 RJ45 T568A
Size with faceplate	75mm x 116mm x 47mm (WHD)

AB-44 VCM

Same as AB-39 with

- Touch and hold for Up/Down volume
- Touch (down button) is mute
- Touch (up button) deactivates mute and resumes same volume level
- Remote controllable volume level
- Credit card remote supplied

AB-46 Multi-source VCM

Control	Touch button and remote volume control "Local On / Mute, Global Mute" and "Source Select" buttons
IR LED	Repeating with confirmation
Status LED	Muting facility with indicator (centre button)
Input	RJ-45 T568A
Output	screw terminal (up to 14 gauge)
Size -profile	13mm, mounting depth: 55mm
Plate Size	75 x 116 mm (WH)

Credit card remote supplied

AB-70 LIM

- Auto switching when local audio signal is sensed.
- Auto return 30 seconds after audio ceases

Inputs	Local Audio - RCA Phono jacks (1pr.) From hub - RJ-45 T568A
Output	To Volume Control - RJ-45 T568A
Size with faceplate	25mm x 107mm x 44mm (WHD)

DE/HDE

The AB-44 & AB-46 include Dynamic Efficency (DE) amplification delivering higher power output, improved sound quality and lower energy consumption. Also included is an optional socket for High Dynamic Efficency (HDE). When a second CAT5 cable is connected from the power [15] socket to any A-BUS hub output, the VCM will provide twice the output power.

Warranty

Please contact your place of purchase for warranty information.