forté™ Intercom
A·BUS® Compatible

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A·BUS® Compatible

by

forté™ electronics

USER GUIDE AND INSTALLATION MANUAL

![forté A-BUS logo]

forté
A-BUS®
Multi-Room Audio

A-BUS*READY.*

Cat-5 Cable

PSU

forté Intercom
A-BUS® Compatible

A-BUS

PSU

forté
A-BUS®DIRECT™

iPOD

Speaker Cable
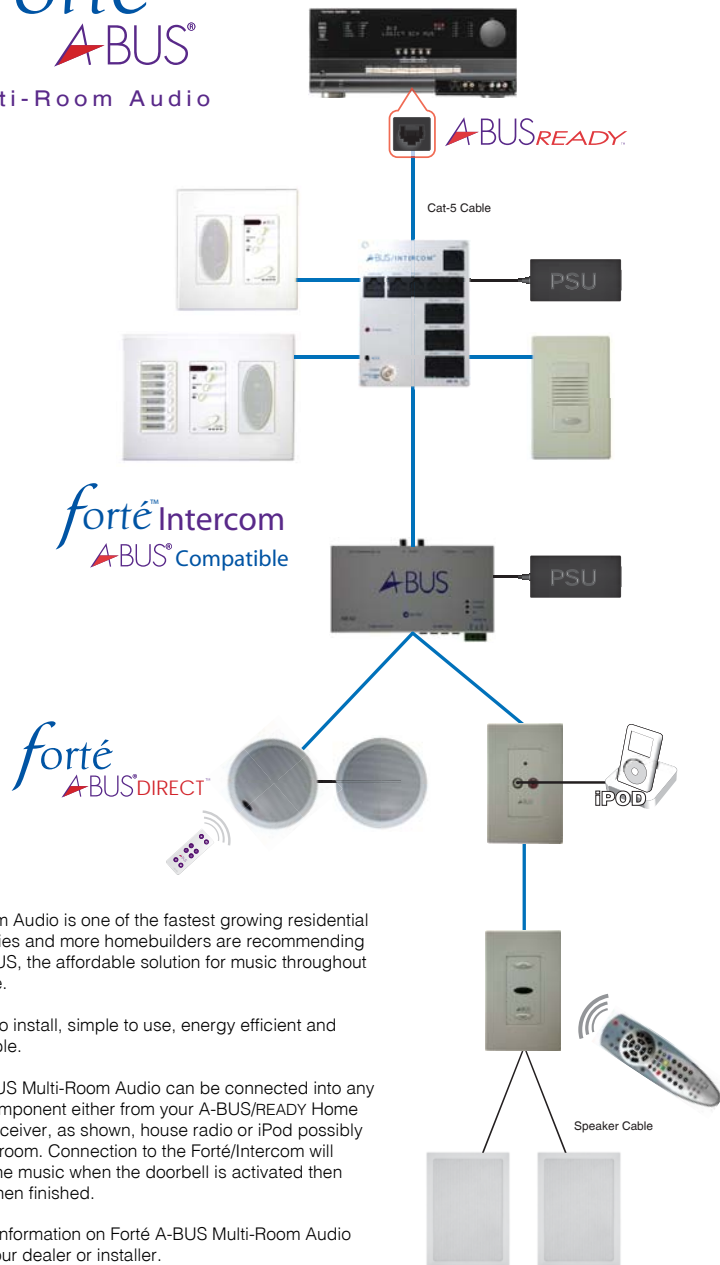
Multi-Room Audio is one of the fastest growing residential technologies and more homebuilders are recommending Forté A-BUS, the affordable solution for music throughout your home.

It is easy to install, simple to use, energy efficient and ultra-reliable.

Forté A-BUS Multi-Room Audio can be connected into any source component either from your A-BUS/READY Home Theatre receiver, as shown, house radio or iPod possibly in the bedroom. Connection to the Forté/Intercom will override the music when the doorbell is activated then resides when finished.

For more information on Forté A-BUS Multi-Room Audio contact your dealer or installer.

Enhance Your Home With Forté A-BUS

Forté A-BUS products shown here are a selection of the many components available. Block diagram only, not for wiring. Wiring diagrams may vary, consult your manual. Images not to scale.

TROUBLESHOOTING

Fault Finding

Incorrect Wiring
Most faults will occur as a result of incorrect wiring of one or more terminations. The most efficient way to isolate the fault is to disconnect all the room and door units and establish a working arrangement with two rooms connected to the hub that operate correctly, preferably the rooms located closest to the hub. If these rooms present a problem change one room at a time until you have a two units working properly. This will confirm that the hub is operating correctly and should be the basis of your fault finding process.

By changing the room units one by one the faulty line/room unit can be found. To establish if it is the cable or the room unit connect a room unit which has tested OK to the line; it will establish if the fault is in the line or the room unit. If it appears that the room unit is faulty a second test should be carried out to confirm the fault by connecting it to a line already tested to be OK.

Hum and Noise
In ideal situations the system should work without any unwanted hum and noise; however, interference from other electrical devices and cabling may cause problems. It is recommended in situations where this occurs that an earth (ground) is connected to the hub. This should eliminate most problems. If it continues to occur cut the power to all other electrical items in or near the house. External high voltage power lines can cause interference. If problems continue to occur the fault finding process above should be carried out to establish the line/s which are inducing noise to the system. It may require a cable rerun to avoid noisy equipment or cable.

Back to Back Room Units
In situations where two room units are located back to back or close to each other, back boxes are recommended on both units to isolate them against audio interference. For best results the back box should include some padding material similar to insulation material.

DOOR LATCH INSTALLATION

Entry Communicator

Door Strike Interface Cable

Voltage selector
(red switch)

12 volts

24 volts

Door Latch

TABLE OF CONTENTS

WELCOME

We hope you enjoy your Forté Intercom and it becomes a valued addition to your home. Like all Forté A-BUS products it has been designed to give superior performance and be simple to install and use. Please read this information carefully to make sure you understand the facilities available to you.

OVERVIEW

The intercom is designed to integrate with your structured wiring system with the control hub located in your structured wiring panel, only one Cat-5 cable is required to connect each station which can be mounted in standard electrical backboxes. The advanced computer-based design simplifies the functionality of the system and the sophisticated audio componentry provides clear communications.

The hub will accept up to eight room units and two door units. The system can be made up of any combination of components. The Mini-Master room unit offers most facilities included in traditional intercom master units. Any room can be upgraded to a Control Centre with advanced features. The Entry Communicator can also be upgraded by installing the optional Door Strike Interface Cable. This cable offers a security code feature and is connected to a 12 volt relay and an electric door strike assembly. The hub A-BUS loop through facility can integrate with a single-source Forté A-BUS system to mute the audio system during intercom communications.

IMPORTANT SAFETY INSTRUCTIONS

When installing and using your Forté A-BUS equipment, be sure to follow the safety precautions below in order to reduce the risk of fire, electric shock and personal injury.

- Be sure to thouroughly read and understand all instructions.

- Follow all warnings and guides marked on the equipment.

- Avoid using the system if electrical storms are in your area. There is a risk, as with any electrical equipment of electric shock or malfunction from lightning.

- To reduce the risk of electric shock do not place any objects into the openings of the unit or surrounding area.

- Always observe local safety regulations.

QUICK SETUP

⚠ It is important not to install the room and entry units into their wall mounts before the system is completely wired and tested. This is necessary to allow setting of the max volume. When the system is fully connected, plug in the power supply to activate the system.

Connecting Rooms
Insert the room name legends into the slides on the expansion unit (fig. 1) in the same order on all expansion units. The top slide should correspond to Room 1 on the hub, the second slide to Room 2 and so on (fig. 3). You may wish to print your own room names if you cannot find appropriate names in the supplied list - standard printer paper can be used and cut to fit appropriately (see page 10).

Door Chime Selection Mode
On the Hub press and hold the Mode button for 7 seconds to place the system into this mode if power is already on. Now press the Talk button on the Door unit for which you want to change the chime, you will hear a chime sound on the door speaker. This is the sound you will hear in all eligible rooms when someone presses the door unit Talk button. Each time you press the Talk button, you will get a different chime sound. There are seven available sounds. When you get the sound that you like press the Mode button on the Hub again to return to normal operation.

Figure 3

Hub

Control Center

Room 1 to Slot 1
(Kitchen)

Room 2 to Slot 2
(Living)
etc...

Expansion Unit
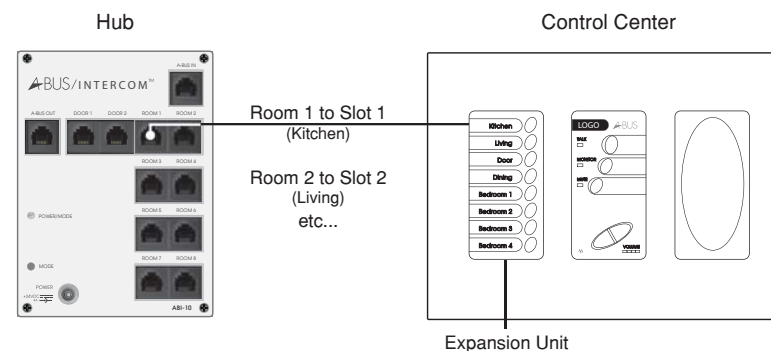
Room Unit Adjustment
Each door and entry unit is supplied with a master volume level adjustment on the back of the unit. This will allow for adjustments in sound level due to room conditions. It is supplied with the level set to suit most conditions. To confirm this select monitor in one room with a person or music source as a reference so the level can be adjusted in all other units. Two bars of the volume level indicator should be showing most of the time.

Cable Runs

One Cat-5 cable should be run from the hub to each room and door entry unit. Cable runs should not exceed 30m (100ft). The cable should not be run near or parallel to other electrical equipment or cables. When running cable parallel to other cables there should be a minimum separation of 100mm (4") to avoid induced interference.

Mounting

The hub is supplied ready to mount in your structured wiring panel with its power supply. The Mini-Master is designed for double-gang mounting and the Control Centre is a triple-gang mount. The entry units are single-gang. Solid back boxes are preferred.

Remote Door Latch Option

The Door Entry Communicator has a latch terminal on the back side. An optional Door Strike Interface Cable (ABI-22) is required and needs to be connected to that terminal and should be installed in a secure place near a 12 volt relay and a door strike assembly which are to be supplied by the installer. A door opening command is possible only after a door chime button is pushed on any Door Entry Communicator. Then, the door strike is activated by pushing both "talk" and "mute" buttons at the same time from any master or mini master room unit.

Expansion Unit Room Labeling

Once you have decided the rooms you wish to include on the expansion unit panel you may select them from the included room names and insert into the expansion module (fig. 1) or even print your own room names using a standard desktop printer.

To print your own names simply use your word processor and print to a standard page (no thicker than 22lb, 83g/m^2 or approximately 200 micron) then cut the room name inserts to the size specified below (fig. 2):
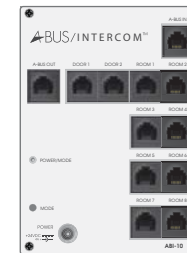
Figure 1

Inserting room names into the expansion module - you should do this before installing or install the module on the left hand side.
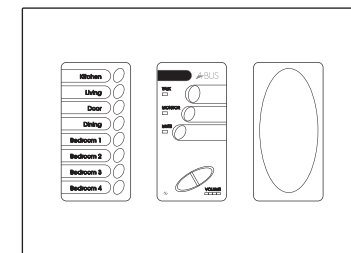
Figure 2

23.5MM

6.93MM

SYSTEM COMPONENTS
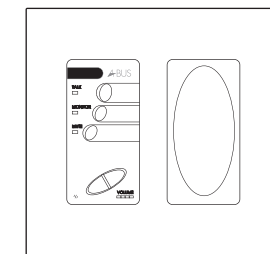
Hub (ABI-10)

Control Center (ABI-16)
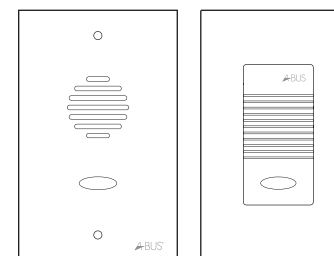

Power Supply (APS-40)

Mini Master (ABI-15)
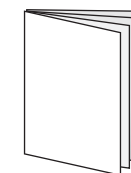

Entry Communicators

ABI-18   ABI-17

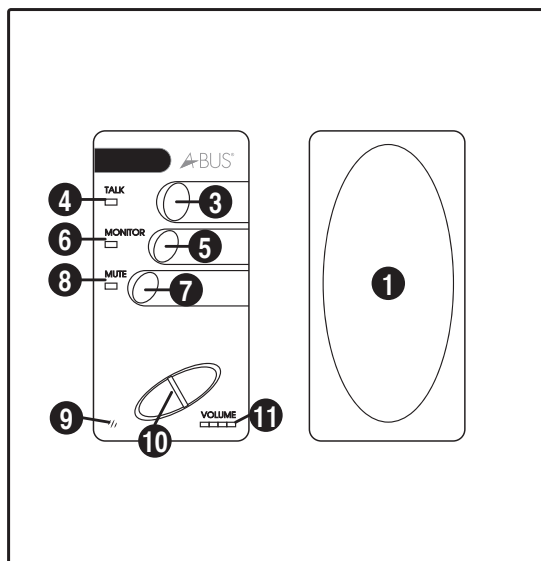Door Strike Interface Cable (ABI-22)

Installation Guide

Room Name Inserts

*Products may vary in each kit. Refer to www.leisuretech.com.au for kit components.

MINI-MASTER (ABI-15)

Operation

The system will activate when the talk (or monitor) button is pressed. The room activating the system becomes the master. All rooms are advised that the system has become active by a tone. All rooms (not on monitor or mute) will hear the master while the talk button is pressed. When released the master will hear all rooms (not on monitor or mute). If a private conversation between the master and one room is required the system will go into privacy mode (one to one) when the other room presses the talk button. More rooms can join the conversation by also pressing the talk button. In privacy mode all rooms must press to talk.

All stations have an automatic gain control to increase sensitivity for those who are not close to the microphone and to limit the sound in noisy rooms. If noise from other rooms makes a conversation difficult the respondent may revert to privacy mode. If the respondent is in a noisy room communication will improve if they talk close to the microphone. To allow for individual listening level requirements each room can adjust its individual volume level. The system will automatically go back to standby 30 seconds after a Talk button has not been used. It may also be deactivated by pressing the mute button. If a single-source Forté A-BUS system is connected to the hub it will mute the audio system while the intercom is active.

INSTALLATION

System Diagram
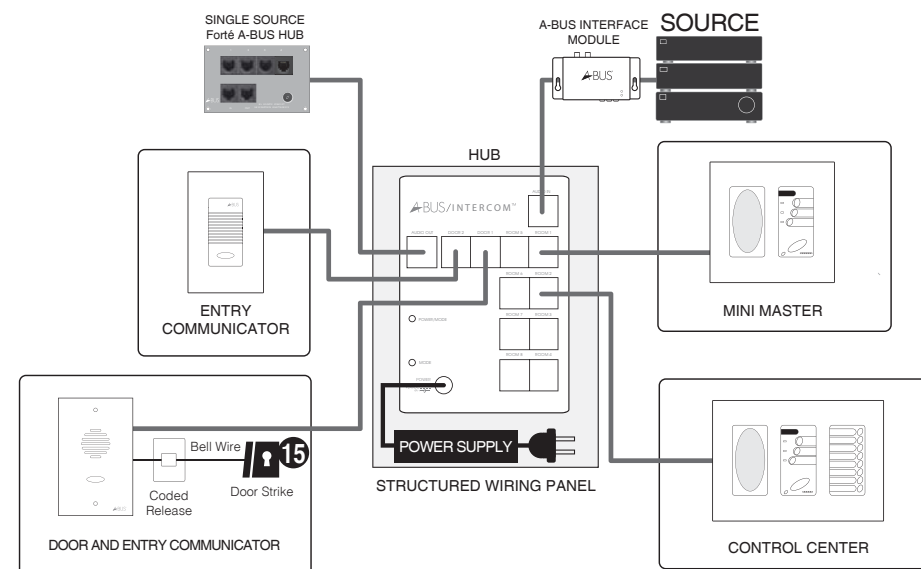
The Forté/Intercom has been designed for easy installation by installers qualified to install products based on Cat-5 cabling. Care should be taken to read these instructions carefully.

System Choice

There is a choice of two room units and two entry units for this system. Unlike other intercom systems no master is required in the system. A system may be configured using all Mini-Masters or it may be all Control Centres or a mixture of both. The Door & Entry Communicator includes a terminal for the door latch cable. The cable includes a security decoder board which should be located close to the door latch.

Connections

The hub has RJ-45 connectors wired to 568A standard. The room and entry units have 110 punchdown connectors which are colour coded.

Making A Call

When a call is instigated from a Door Station Entry Communicator [14] a chime is generated to all rooms units not in Mute or Monitor mode. Any room can answer the call by pressing the talk button. Other rooms may enter the conversation by pressing their talk button (a warning tone will be generated). The door unit is hands free.

Chimes

There is a choice of seven chimes available on installation (see installation). When there is a second Door Station Entry Communicator individual chimes can be selected.

Indication

The call button [14] on the front of the Entry Communicator is permanently illuminated with a low energy orange LED. When a call is instigated it will indicate green. When a response from a room unit is received it will indicate red.

Two Entry Points

Each Door unit can select an individual chime to identify itself. If one door is activated by a caller and another is activated during the first communication all rooms not responding to the first call will receive the second door's distinctive chime. Room unit/s responding to the first call will receive a warning tone. The second door cannot be responded to until the first conversation is cancelled by pressing the mute button or is timed out.

DOOR & ENTRY COMMUNICATOR (ABI-18)
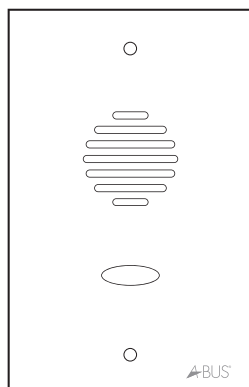
Operation

The Door & Entry Communicator has the same operations as the Entry Communicator. It also includes a security-coded door latch and a metallic finish. The door can be unlatched only by the responding room unit. The door unit is weather-proof; however, it is recommended that it be located out of the sun and away from moisture.

Features

Door Opening

The Door & Entry Communicator can open a door after a room unit has responded to the call from the door unit by pressing the talk and mute button simultaneously. For security purposes the door can only be opened by pressing the Mute button while holding down the Talk button.

Features

Talk Button [3]

To initiate a call the system is activated by pressing the talk button. This will open communication to all rooms except Room units in Monitor or Mute Mode and Entry units. When the talk button is released the microphones in all called rooms will be actived for hands free response. A private one to one conversation can be activated if a called room unit presses the talk button removing all other rooms from the conversation. Additional rooms may rejoin the conversation by pressing their talk button.

Microphone [9]

The high quality electret microphones [9] provide clear communications. The automatic gain control (AGC) evens the input levels so a person away from the room unit will appear to be as loud as a person standing near to it. It will also limit the sound level if there is loud music playing in a room. For best communication the users should be approximately 1m (3ft) from the microphone.

🔈 **Note**: Make sure dirt does not build up in the microphone holes.

Loudspeaker [1]

The output level of the loudspeaker can be adjusted to suit individual room requirements [10] when the system is active, a level indicator is included [11].

Monitor [5]

The monitor facility allows a room to be monitored by all rooms not in Mute mode. The room will not receive door chimes or be included in conversations. The orange Monitor indicator [6] will be activated in all rooms being monitored.

Mute [7]

When a room does not wish to be disturbed the mute facility will isolate the room from communications or door chimes. The red indicator [8] will light up when Mute is selected.

A-BUS Audio

If a single-source Forté A-BUS system is connected to the intercom, the audio will be muted while the intercom is active.

Warning Tones And Indicators

A warning tone will advise of additional participants joining a conversation. The green talk indicator [4] will light up on every room unit when the intercom is active and flash when a talk button is pressed.

CONTROL CENTER (ABI-16)
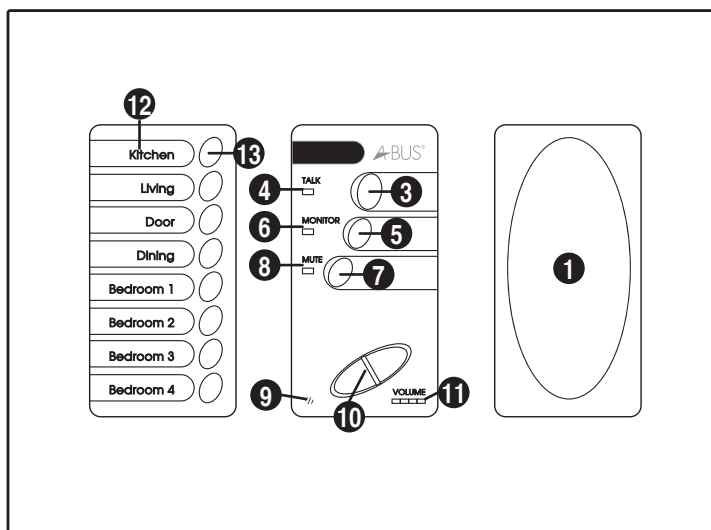
Operation

The Master Control Center has the same operation as the Mini-Master, with the following additional features. The room display panel indicates the activity with each room. Private conversations with one or more rooms can be selected with a short press of the room buttons you wish to communicate with; the active rooms indicator lights will be green. When the talk button is pressed it will only communicate with the selected rooms. The first room selected will have hands free operation; additional rooms can respond by pressing their talk buttons. When another room calls the room indicator turns green. When a room is muted the indicator turns red. A room with an orange indicator is in monitor mode. Control Centers can activate or cancel these features in another room by holding the room's button.

Features

Room Indicators [12]
Room Indicators [12] indicate the status of each room. Each room can be individually labeled. They indicate: *Green* - Individual call, *Orange* - Monitor, *Red* - Mute

Indication
If a rooms mute or monitor is instigated by a Master Control Center located in another room, the mute and monitor lights will illuminate.

Select Calling
In addition to standard 'ALL Call' call mode individual calls can be initiated by selecting one or more rooms [13] with a short press. The room indicator [12] will indicate green, the destination room will generate a warning tone. When the talk button is pressed it will only communicate with the selected rooms. The first selected room will be hands free operation, additional rooms may enter the call by pressing the talk button, they will not have hands free operation.

Remote Selection Of Monitoring
Master Control Center's may instigate or cancel Monitoring in another room. To select Monitor in another room press and hold the room button [13] until the room indicator [12] turns orange. The Monitor indicator in the room [6] being controlled will be illuminated.

Remote Selection Of Mute
Master Control Center's may instigate or cancel Mute in another room. To select Mute in another room toggle (press and hold) the room button [13] until the room indicator [12] turns red. The Mute indicator in the room [8] will illuminate red when the system is active.

ENTRY COMMUNICATOR (ABI-17)

Note: The door selector jumper (figure 3) located on the rear of the Door Units must be set to the number corresponding with the connection to the hub prior to powering up the system.
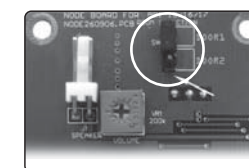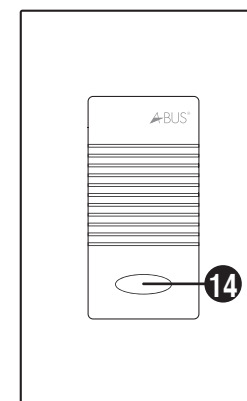
Figure 3

Operation

The Door Station Entry Communicator will activate the system when the chime button is pressed. A chime will be generated in all rooms not in monitor or mute mode. Any room may respond to the call by pressing the talk button. Additional rooms may wish to enter the conversation by pressing the talk button. The entry unit has hands free operation. When unanswered the call will cancel out after 60 seconds or when the mute button of the responding room is pressed. There are seven chimes to select from; each door may have different chime. A call from the entry unit will override any internal communication.