VANTAGE

C O N T R O L S

A x i u m

AX-KPA

Keypad Instruction Manual

Precautions

1   Read these instructions.
2   Keep these instructions
3   Heed all warnings
4   Follow all instructions
5   Do not use this apparatus near water
6   Never expose the unit to moisture
7   Suitable only for use Indoors
8   Only connect specified supply voltages
9   Connect only to the specified terminals

For U.S. models
FCC information for User
CAUTION:

The user changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

For Canadian Models
NOTE: THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003

Modèle pour les Candadien
REMARGUE: CET APPAPEIL NUM   RIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.
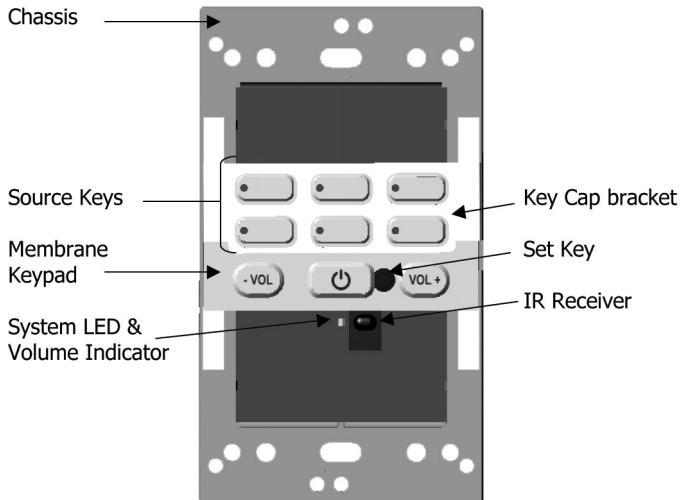
Table of Contents

Introduction

The Vantage / Axium AX-KPA keypad simply controls and provides status feedback of source selection, power, mute and Volume of an Axium series multi-zone amplifier.
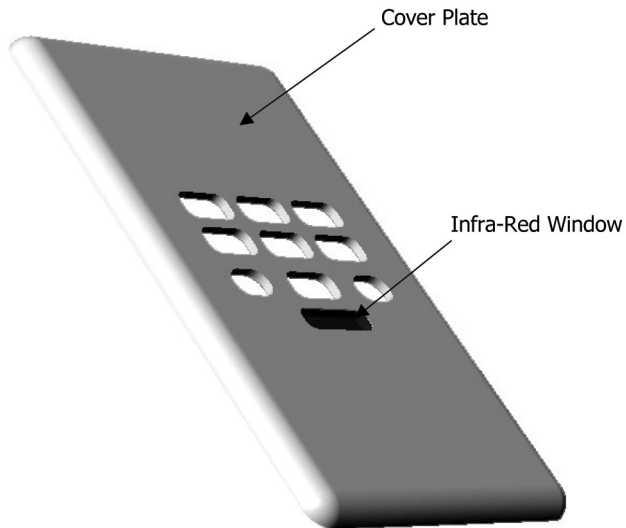The Keypad is programmed manually when connected to the amplifier.

Features

- Standby, Volume Up/Down and 6 Source select keys.

- 32 Source select key-caps providing a selection of Source select key labels.

- Axium Zone setup: 32 zones with Amp or Preamplifier definition.

- Toggling Amp / Preamplifier control function.

- Data-stream filtered © IR receiver (May be defeated).

- Blue Source Select indicators – tracks the amplifier selection, indicates amplifier ON status.

- Volume Level indicated by a full colour LED.

- RJ45 crimp plug connection for simple & reliable installation.

- A white cover plate is supplied as standard.

Parts Guide

Chassis

Source Keys

Key Cap bracket

Membrane
Keypad

Set Key

IR Receiver

System LED &
Volume Indicator

- VOL

VOL +

Parts Guide

Cover Plate

Infra-Red Window

Parts Guide

Key Cap Membrane

Flush Box screws

RJ45 Connector

Installation

The AX-KPA chassis mounts directly to the wall surface. The following steps outline the installation procedure:

• Cut out the required mounting hole in the wall above the flush-box.

• Terminate an RJ45 plug to the CAT5E cable see wiring instructions on page 8.

• Connect the RJ45 plug to the AX-KPA.

• Secure the keypad in position using the supplied flush-box screws.

• Program the keypad – see page 10.

• Select the required Source Key Cap's, and secure in position using the Key Cap bracket.

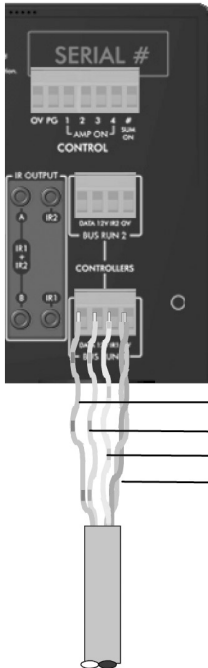• Push the keypad cover plate into position.

System Wiring

CAT5E cable terminated with a RJ45 plug is used to connect to the AX-KPA.
Use the standard 568-B colour code for the CAT5E termination:

Pin #	Wire Colour	Keypad function	
1	White/Orange	+12V DC	supply
2	Orange	0V	supply
3	White/Green	IR	output
4	Blue	nc	
5	White/Blue	Data	input
6	Green	0V	supply
7	White/Brown	nc	
8	Brown	nc	

When cabling use CAT5E home runs with a maximum length of 200m (650ft).
"Daisy chaining" or parallel connection of up to four keypads per CAT5E cable may
be used.

System Wiring

Connecting to an Axium 450 series multi-zone amplifier

AX-KPA keypads are wired to the amplifiers controller port.

Axium controllers – keypad's and IR receivers – may be parallel connected.

IR emitters plug into the IR outputs and are fixed to the source equipment's IR windows.

Note: Ports IR1 and IR2 are Interface port specific, while ports IR1+IR2 relay the signals from both interface ports.

White/Blue: Data
White/Orange: 12V
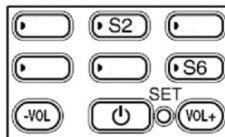White/Green: IR
Orange & Green: 0V

Manual Programming

The SET Key is used along with the Source Keys to put the keypad into various programming modes.
The SET key is pushed first - System LED flashes Green followed by the relevant source or function key.
The functions are:

S2	Axium Mode
S6	Reset
Standby	IR Receiver Toggle
VOL+	Volume Level Indicator Dimming
-VOL	Source Select Indicator Dimming

AXIUM MODE = SET+ S2

Push SET followed by the S2 Key to enter AXIUM mode.
The System LED flashes teal.
At the Axium amplifier turn ON and OFF the zone twice.
The keypad detects the amplifier and programs itself to address the zone and device.
Axium mode automatically exits.

Manual Programming

RESET = SET + S6 + S6

To reset the keypad push SET followed by two S6 pushes. The System LED will go from RED to GREEN at the completion of the memory wipe.

IR RECIEVER TOGGLE = SET + Standby

The IR receiver is normally disabled. To enable the receiver press SET followed by the Standby Key, the System LED will flash Green/white. Pushing Standby a second time toggles the IR receiver OFF, system LED will flash RED/white. Exit by pushing the SET key.

VOLUME LEVEL INDICATOR DIMMING = SET + VOL+

The Volume Level indicator brightness may be adjusted:
Push SET, then push the VOL+ to cycle through OFF, 50% and 100% levels.
Exit by pushing the SET key.

SOURCE INDICATOR DIMMING = SET + -VOL

The source indicator brightness may be adjusted:
Push SET, then push –VOL to cycle through 25%, 50%, and 100% levels.
Exit by pushing the SET key.

13

Trouble Shooting

PROBLEM: No control at all
The AX-KPA forms just one part of an IR system. There are potential issues with connections, wiring, power supply, IR receiver and emitter placement, plus other optical and EM interference and ground loop possibilities.
It is best to strip the IR system back to just one controller and debug from there.
With no IR activity the IR terminal should read 0V – if not then check all wiring and connections, ensure the keypad programming is correct, and the keypad is functioning correctly.

PROBLEM: Keypad does not track the Axium series multi-zone amplifier.
Ensure the data termination has integrity, and is not shorted to other conductors in the CAT5E. Ensure the keypad is correctly zoned.

Specifications

IR receiver   Passthrough of modulated infrared whose carrier frequency is
                   within the range of 32KHZ – 44.1KHz.
                   Range: typically 8m - Dependant on ambient light level, angle
                   of incidence and the remote controls battery condition.

Wiring   Up to 200m (650ft) of CAT5E home run cable.

Voltage   12VDC ± 3V

Current   Typically 25mA , Max = 60mA

Dimensions   Cover Plate: Width = 75mm (2.95"),
                   Height = 120mm (4.72"), Depth = 4.6mm (0.18")
                   Depth behind plate = 20mm (0.79")

Compliance   C-tick, ICES-003, FCC.