

incognito **KP10**

A-BUS keypad

Installation Guide



Cambridge Audio

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INTRODUCTION

Thank you for purchasing this Cambridge Audio Incognito product. Incognito is a cost-effective, modular based system using standard Cat-5 or Cat-6 cable to distribute hi-fi quality sound and video around a home.

The KP10 is an in-wall, A-BUS™ compatible amplified keypad with buttons for control of speaker volume levels, Standby/On and source select (with compatible equipment), as well as having an IR window for receiving remote control signals. The KP10 can connect to A-BUS hubs, A-BUS Ready receivers, or to the Incognito Ready outputs of Cambridge Audio receivers and amplifiers using Cat-5 wiring. The KP10 then connects to speakers using conventional speaker cable.

The KP10 keypad fits into any wall and is available with different finishes to compliment various decorative schemes. The KP10 is fitted on the wall by fixing it into a standard single J-box electrician's back-box. All knock-outs in the back-box should be removed to provide maximum ventilation. Care should be taken in choosing a site for the KP10, and always refer to the precautions in this guide. Bear in mind it is not always preferable to fit the KP10 next to a light switch, particularly if the faceplates will differ.

Thanks for taking the time to read this manual, we do recommend you keep it for future reference.



Matthew Bramble
Technical Director

SYSTEM OPTIONS

The KP10 keypad can be used in two main configurations:

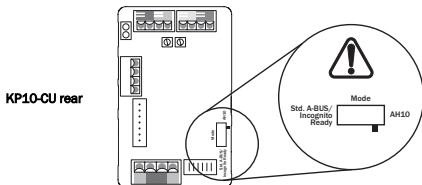
1. As part of a full Incognito system, where it is plugged into an Incognito hub (AH10), perhaps with other Incognito accessories such as a video switching unit (VH10) or local input module (LM10) fitted.
2. Where the keypad is plugged directly into an A-BUS Ready/Incognito Ready output of a compatible Cambridge Audio (or other brand) A/V Receiver or Amplifier, no other accessories are possible other than the required power supply and remote control/s.

The KP10 has two modes of operation to support these configurations, AH10 mode and Standard A-BUS/Incognito Ready mode. The modes are selected by setting the Mode switch, located on the rear of the KP10.

Note: Setting the Mode switch to the wrong setting can cause erroneous operation!

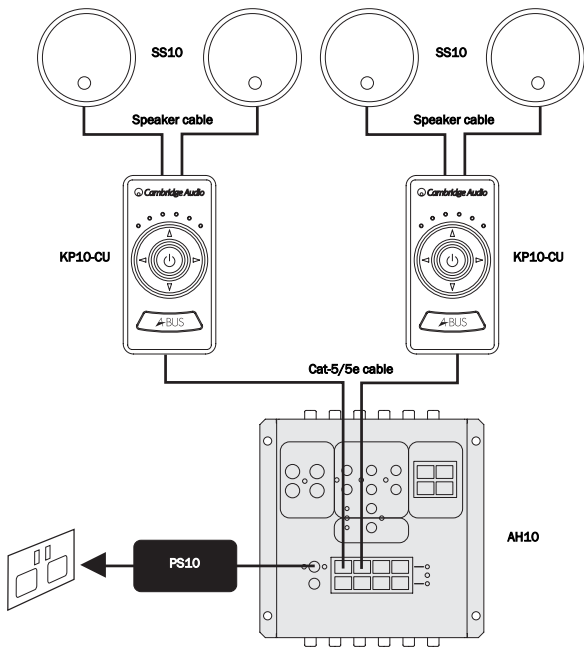
Full Incognito system

For use in a full Incognito system (see diagram opposite) the Mode Switch **MUST** be in the "AH10" position as shown below:



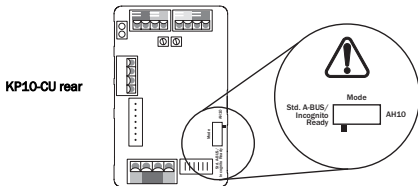
Please consult the AH10 Incognito Multi-Room Installation Guide for full details of the various options available for the full Incognito system.

KP10 A-BUS keypad



A-Bus Ready / Incognito Ready

For use with an A-BUS Ready/Incognito Ready unit (see diagram opposite) the Mode switch MUST be in the "Standard A-BUS/Incognito Ready" position as shown below:

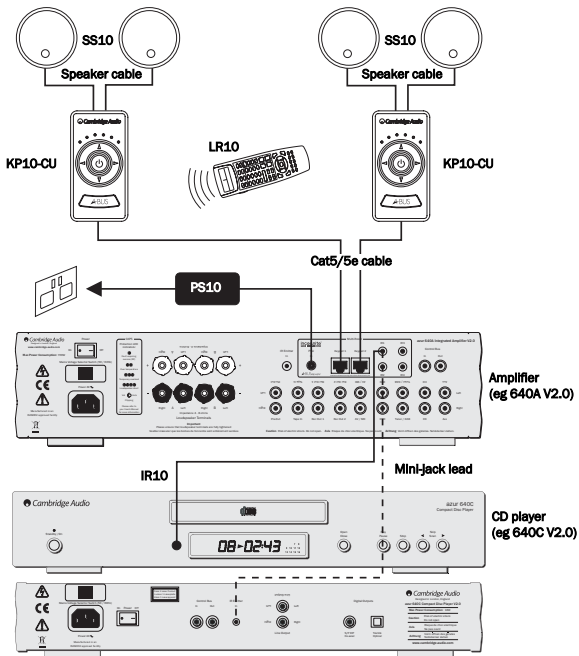


In this configuration the keypad is wired directly to the amplifier/receiver. A Power Supply Unit (PS10) is also required to power the one or two keypads as shown.

To allow control of your source equipment from the remote rooms an IR emitter (IR10) is plugged into one of the IR outputs on the rear of the unit and then attached over the IR window of the source unit. Alternatively, on our own products that feature IR emitter Inputs, a mini-jack to mini-jack lead can be used.

Commands received by the keypads can now be sent back to the source equipment via the amplifier. It is then possible to control the source equipment from the remote rooms by using the source equipment's own remote controls or through a learning remote. The Incognito LR10 Learning Remote can fully control the keypads, "learn" the source's remote controls and change source input on the amplifier etc.

KP10 A-BUS keypad



INSTALLATION NOTES

The KP10 is fitted on the wall by fixing it into a standard single USA-type J-Box (electrician's back-box). All knock-outs in the back-box should be removed to provide maximum ventilation.

Where it is desired to fit a mains lighting switch etc next to a keypad, a barrier-box or two single back-boxes must be used (bear in mind it is not preferable to fit the keypad next to a light-switch particularly if the faceplate styles will differ). Only a qualified electrician should attempt such installations.

Avoid fitting the KP10 where there is line of sight to another KP10. In such situations both keypads may pick up the same commands from a remote control and it will be difficult to control each zone independently.

Avoid fitting the KP10 where there is line of sight to the source equipment for the system. In such situations the source equipment may pick up the same IR commands directly as are picked up by the keypad and sent to the source equipment. This can interfere with the remote operation of the source equipment.

Do not fit the keypad in areas directly lit by strong sunlight or where it will be strongly lit by fluorescent tubes. These can be sources of infra-red energy which can interfere with the remote control operation of the system. Some plasma televisions can radiate a lot of infra-red energy and care should be taken if fitting a KP10 near a plasma screen television. Avoid placing the KP10 near to dimmer switches or other items, which generate a lot of electrical noise.

Safety precautions

Care should be taken when choosing the site for a KP10, the keypad must never be installed in a back-box which also contains mains wiring or in areas of high humidity.

The KP10 runs on 24V DC supplied through the connecting cable. As such there is no mains voltage present in the KP10 and the unit is often safe to fit in areas where only extra low voltage (ELV) equipment is permitted. However, it is imperative that you always check the wiring regulations in force for your application and area.

Faceplates

The KP10 faceplate system is based on the Decora™ standard and is interchangeable with the wide range of faceplates made by manufacturers such as Leviton etc that conform to this standard. If it is desired to fit another faceplate, it can be replaced by gently prising apart the KP10 faceplate and snapping on another in its place.

Fitting the keypad

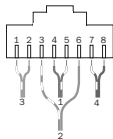
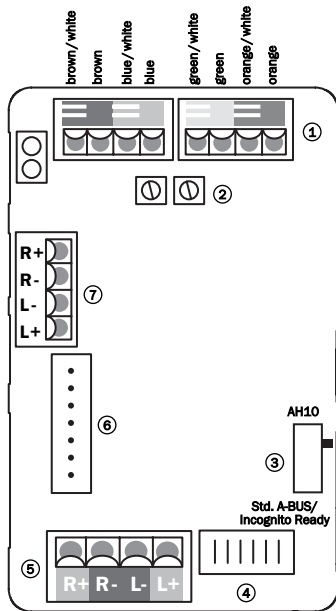
Remove the supplied faceplate from the KP10 by gently prising apart. It will “pop” off. Connect each wire in the Cat-5 cable to its respective terminal in the screw-down connector on the back of the KP10 (refer to the Cat-5 to KP10 screw-down connectors diagram in the ‘Rear panel connections’ section of this guide). The recommended maximum length for use with standard Cat-5 cable is 30m from hub to keypad in total (screened Cat-5 cable can also be used). After making the wiring connections, fit the KP10 to the back-box with the two supplied 6x32 UNC 35mm screws. Gently push the faceplate back on to the module.

Note: If in doubt about any aspect of installation or wiring, seek professional advice from a qualified installer.

REAR PANEL CONNECTIONS

① Cat5 to KP10 screw-down connectors

A Cat-5 cable (terminated with an RJ45 plug) is used to connect the KP10 to an AH10 hub or A-BUS Ready receiver. The KP10 has screw-down connectors for the eight individual conductors of the Cat-5 cable (use a small flat-bladed screwdriver). See below for the EIA/TIA 568A wiring standard:



View from contact end

- 1 white/green
- 2 green
- 3 white/orange
- 4 blue
- 5 white/blue
- 6 orange
- 7 white/brown
- 8 brown



Gather pairs, trim and insert into RJ45 plug



Crimp wires securely in place

KP10 A-BUS keypad

② Gain adjust

The maximum output of the KP10 can be limited by turning these down. Alternatively, if the sound level is too quiet, the Gain can be turned up.

③ Mode switch

Selects between AH10 mode and Standard A-BUS Ready/Incognito Ready mode.

④ I.C.P

In-circuit programming socket, used to upgrade keypad software when necessary.

⑤ Speaker output

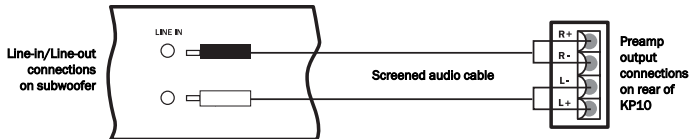
Connect to a pair of speakers with two runs of standard high-quality speaker cable. Speakers of at least 88 dB SPL for 1W @ 1 metre efficiency should be used with the KP10. Speakers from 4–8 ohms can be used. The Incognito SS10 speakers are an ideal match.

⑥ LK10 option

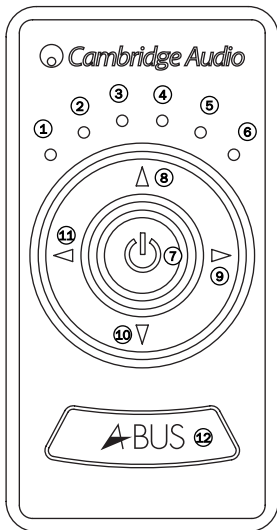
Allows control of source equipment via an LK10 Learning Keypad.

⑦ Preamp output

A preamp output is provided for optional use driving a powered subwoofer or auxiliary amplifier. Connection from the preamp output to other equipment should be by screened audio cable (see diagram below).



KEYPAD CONTROLS



The six LEDs indicate the function status of the KP10. Listed below are each of the functions of the corresponding LEDs:

- ① **Minimum volume / Source select**
- ② **Volume / Source select / Bass adjust / Local Source Selection Mode**
- ③ **Volume / Source select / Treble adjust / Local Source Selection Mode**
- ④ **Volume / Source select / Balance adjust / Local Source Selection Mode**
- ⑤ **Volume / Source select / Fader adjust / Local Source Selection Mode**
- ⑥ **Maximum volume / Source select**

For full instructions on volume adjustment, source selection, sound adjustment and local source selection modes, refer to the 'Operating instructions' section of this guide.

⑦ Standby/On

Press to switch the keypad between On and Standby mode. By pressing and holding the Standby button for about 2 seconds, all KP10s connected to the AH10 hub will be turned off. If the KP10 is connected to a Cambridge Audio Incognito Ready Amplifier rather than an AH10 hub, the amplifier will be turned off.

⑧ Volume up

Press to increase the volume or other sound adjustment.

⑨ Source select (right)

Use this key to select the current active source.

⑩ Volume down

Press to decrease the volume or other sound adjustment.

⑪ Source select (left)

Use this key to select the current active source.

⑫ IR window

Point the Incognito LR10 Learning Remote towards this window. A small flashing LED behind this window indicates operation.

OPERATING INSTRUCTIONS

Important!

As mentioned previously, the KP10 can be switched between two modes of operation; a standard A-BUS mode for compatibility with other manufacturers A-BUS Ready equipment (Standard A-BUS/Incognito Ready mode), and an Incognito A-BUS hub mode (AH10 mode). When used with other manufacturers A-BUS Ready equipment the keypad **MUST** be switched to “Standard A-BUS/Incognito Ready” mode or they will not work.

Volume adjustment

Volume is adjusted using the volume up and volume down buttons on the keypad or remote; this is indicated on the keypad by the intensity of the blue LED lights, there are four levels of intensity.

Source selection

The Source left and right buttons allow you to choose from multiple connected sources. The LED display will indicate which source is selected.

Sound adjustment modes

Pressing the Power/Standby button while holding the Volume down key activates the sound adjustment modes, the four central LEDs on the keypad will then light in sequence to indicate each of the four sound adjustment modes; Bass, Treble, Balance and Fader. These modes can also be activated using the 'Select' button on the remote control.

After holding both buttons down for a short period, the second LED on the keypad will light indicating that **Bass adjust mode** has been activated. In this mode pressing the Volume up/down keys will adjust the Bass (low frequencies) level.

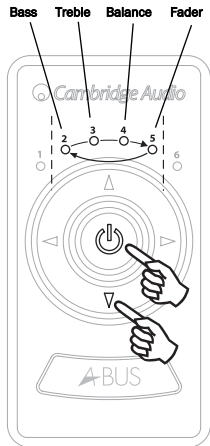
KP10 A-BUS keypad

Continuing to hold both keys down will light the third LED indicating that **Treble adjust mode** has been activated. In this mode pressing the Volume up/down keys will adjust the Treble (high frequencies) level.

Continuing to hold both buttons will light the fourth LED indicating that **Balance adjust mode** has been activated. In this mode pressing the Volume up/down keys will adjust the sound level between the left and right speakers.

Continuing to hold both buttons will light the fifth LED indicating that **Fader adjust mode** has been activated. In this mode pressing the Volume up/down keys will adjust the balance between the main speakers and anything that is connected to the preamp output. This adjustment only being relevant if the preamp output is used. The volume up and down buttons on the remote control can also be used to adjust the sound in each mode.

Note: If no adjustment is made the system will automatically go back to volume adjustment after two seconds.



LOCAL SOURCE SELECTION

Note: This feature is only available if the KP10 is part of a full Incognito multi-room system with one or two Local Input Modules (LM10) fitted.

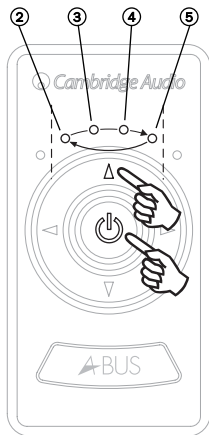
The local source selection mode will need to be activated to configure the KP10 correctly. This mode is only available when the Mode Switch is set to “AH10” mode. LM10s can only be used in this mode. Please refer to your LM10 Installation Guide for more information.

Pressing the Select left or right buttons on the keypad allows you to rotate through all six sources as default. However, it is possible to allow the addition of one or two local sources by accessing **Local source selection mode**. To enter this mode press the Volume up button simultaneously with the Power button for four seconds; the LED display will then scroll through the sequence shown in the illustration right and described as follows:

After holding both buttons down for a short period, LED 2 will light indicating that **Sources 1–6** (default) are available for selection.

Continuing to hold both keys down will light LED 3 indicating that **Sources 1–6 + Local source 1 mode** is available for selection.

Continuing to hold both buttons will light LED 4 indicating that **Sources 1–6 + Local source 1 + Local source 2 mode** is available for selection.



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Continuing to hold Volume up and Power buttons will light LED 5, to indicate that **Off mode** is available for selection, and no source will be selected.

To select these modes, wait till the corresponding LED is lit and then release Power and Volume up buttons.

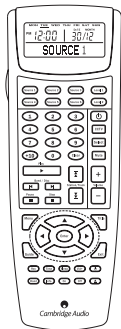
Note: If no adjustment is made the system will automatically go back to volume adjustment after two seconds. If “Standard A-BUS/Incognito Ready” mode is selected on the Mode switch, the KP10 will only rotate round the main 6 sources.

REMOTE CONTROL

The KP10 can be used with the Incognito LR10 remote control, a sophisticated learning remote which is able to learn the codes of all the source equipment remotes. Once programmed the user can thus use the LR10 to perform all operations from one remote.

The LR10 is also suitable where the KP10 is to be connected to the A-BUS Ready outputs of AV receivers and amplifiers instead of one of our hubs as it can learn the relevant source change commands etc of the receiver or amplifier as well as the source equipment.

Note: Please refer to the Incognito LR10 manual for further information.



TECHNICAL SPECIFICATIONS

Input impedance	45 k ohms
Frequency response	20Hz – 20kHz +/- 1dB
THD	<0.2% @ 1W, 20Hz – 20 kHz
S/N ratio	> 80 dB 'A' weighted
Volume control range	-80 dB, 36 steps
Bass control range	+/- 16 dB, 2 dB steps
Treble control range	+/- 16 dB, 2 dB steps
Balance control range	+/- 40 dB, 9 steps either way
Preamp output	Variable level, follows volume setting
IR pass through	34 – 40 kHz and 54 – 58 kHz modulation frequencies supported
Speaker impedance	4–8 ohms
Power requirement	24V DC @ 1A max (supplied by hub)

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