Keypad

KEY-5.7

Instruction Manual

Integra

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.
- Only connect specified supply voltages.
- 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 Canadien

REMARGUE: CET APPAPEIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

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Thank you for purchasing an Integra KEY-5.7 keypad.

Please read this manual thoroughly before making connections and plugging in the unit. Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new keypad.

Please retain this manual for future reference.

Introduction

The Integra KEY-5.7 keypad is IR learning and includes a host of features to simplify/ enhance the amplifier and source equipment control.

When used with an Integra MZA-4.7 amplifier it provides feedback of source selection, power and volume status.

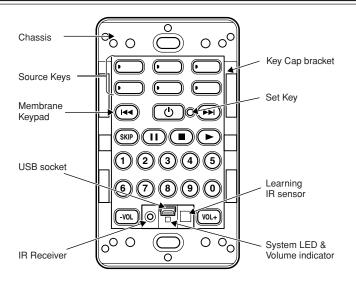
The Keypad may be programmed manually, or by a USB connected PC running "Integra keypad manager." The Integra Keypad Manager software is part of the Integra Software Suite available on the product CD or from the Integra website:

www.integrahometheater.com

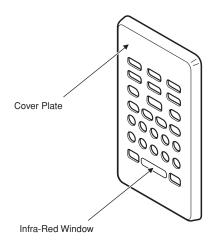
Features

- Amplifier dedicated keys: Standby, Volume Up/Down and 6 Source select keys.
- 32 Source select key-caps providing a selection of Source select key labels.
- 6 Banks of 16 Source Control keys.
- Integra 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 color LED.
- Illuminated Keys. Either continuous or for 30 seconds after a Keypress.
- Capable of learning Pulse or modulated IR codes with modulation frequencies up to 500KHz.
- Programmable either directly from key push inputs or via a USB connected PC running Integra Keypad Manager software.
- Any key may be programmed to be a Macro either sequential (up to 32 codes) or alternating such that with the first press it outputs code A, the next press it outputs code B.
- Any key may be programmed to be Dual function Long press capable.
- Long Press timing and IR code repeats are programmable using Integra Keypad Manager.
- IR codes using the "HEX" code format can be used to program the KEY-5.7. Learnt IR codes can also be converted to the "Hex" code format.
- Keypad firmware may be updated with the latest version using the Uploader_USB program.
- RJ45 crimp plug connection for simple & reliable installation.
- A white cover plate is supplied as standard.

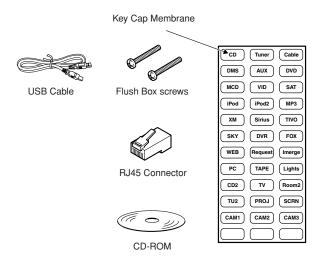
Part Names and Function



Part Names and Function—Continued



Part Names and Function—Continued



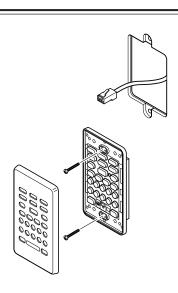
Installation

The KEY-5.7 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 a RJ45 plug to the CAT5E cable see wiring instructions on page 8.
- Connect the RJ45 plug to the KEY-5.7.
- Secure the keypad in position using the supplied flush-box screws.
- Program the keypad either manually or via a USB connected PC running Integra Keypad manager.

Note: the KEY-5.7 must have +12V connected before it can be programmed.

- 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 KEY-5.7. Use the standard 568-B color code for the CAT5E termination:

Pin #	Wire Color	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.

"Daisy chaining" or parallel connection of up to four keypads per CAT5E cable may be used.

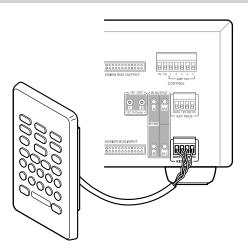
System Wiring—Continued

Connecting to an Integra Multi-Zone amplifier MZA-4.7

KEY-5.7 keypads are wired to the MZA-4.7 Interface port.
Integra controllers - keypad's - 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 Inter-

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



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:

S1	Learn Mode
S2	Integra Mode
S3	Macro Mode
S5	Long Press Mode
S6	Reset
Standby	IR Receiver Toggle
VOL+	Volume Level Indicator Dimming
-VOL	Source Select Indicator Dimming
►► Skip +	Backlight Dimming
K ■ Skip –	Backlighting Toggle



LEARN MODE = SET + S1

Before entering Learn mode the required Source Bank should be selected by pushing it's Source Key.



To enter LEARN mode push SET followed by the S1 key, the System LED flashes amber. Push the Key you wish to donate an IR to, system LED stops flashing (Ready to receive an IR code).

Place the donating remote approximately 80mm away from the Learning IR sensor and push the remote control key, holding down until the system LED turns green (Code learnt).

It is possible to over power the IR sensor in which case the system LED flashes RED (Learn failure). Simply push the keypads key again and repeat the IR donating procedure moving the remote further away from the Learning IR sensor.

If the remote control is a Pulse code type then the System LED will also flash RED. Wait for the System LED to go Amber then from the same position push the remote controls key a second time, the keypad assumes no carrier and the pulse code is Learnt.

Once all the codes in the selected bank have been learned, push the SET key to exit.

Integra MODE = SET + S2

Push SET followed by the S2 Key to enter Integra mode. The System LED flashes teal.



Enter a 3 digit numeric representation of the keypad's setup:

First two digits are the Zone: 00 - 31. The third digit is:

- 0 = Amplifier Zone,
- 1 = Preamplifier Zone
- 2 = Amp & Preamplifier toggle.

Typical codes are: 010 = Zone 1 amplifier, 041 = Zone 4 Preamplifier.

Once a correct 3-digit sequence is entered Integra mode automatically exits. Alternatively, with a connected MZA-4.7 turn ON and OFF the zone twice. The keypad detects the amplifier and programs itself to address the zone and device. Integra mode automatically exits.

MACRO MODE (Sequential) = SET + S3 (Alternating) = SET + S3 + SET

Push SET followed by the S3 key to enter Macro Sequential mode.

The system LED

flashes amber/green. Pressing the SET key a second time selects the Macro Alternating mode - system LED flashes red/green.

Donating IR codes is the same process as Learn.

After learning two commands in Macro Alternating mode the keypad automatically exits. After learning a string of sequential IR codes exit by pushing the S1 key.

LONG PRESS MODE = SET + S5

This mode adds a second function to a key already programmed. The second function

0.7 seconds



will be sent by the Keypad if the Key is pushed down longer than

Push SET followed by the S5 key to enter Long press mode, the system LED glows amber.

Push the key that requires the Long-press function - donate the IR code - the system LED glows green.

Exit by pushing the SET key.

RESET = SET + S6 + S6

To reset the keypad, deleting all Learnt IR commands 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.

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.

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.

BACKLIGHT DIMMING = SET + ►►

The Backlight brightness may be adjusted:

Push SET, then push the ►► key to toggle through OFF, 25%, 50% and 100% levels. Exit by pushing the SET key.

BACKLIGHTING TOGGLE = SET + ₩◀

The backlighting may be set to illuminate continuously or for 30 seconds after a key press.

Push SET, then push the ★★ key to toggle settings. The System LED will go green indicating continuous backlighting, push the ★★ key a second time and system LED goes Yellow indicating the backlight will be on for 30 seconds after a keypress. Exit by pushing the SET key.

Troubleshooting

One source does not operate, or operates intermittently.

- Check the IR emitter is OK, ie. Swap it to other source equipment that is being controlled.
- Ensure the IR emitter is directly over the source equipment's IR window.
- Check to see if the source gear can be controlled via the IR receiver, If it can then try learning the codes again, ensuring the correct bank has been selected.
- Some brands of equipment expect different code on alternate key pushes, reprogram the keypad with the alternate codes using the alternate Macro feature.

Controls an MZA-4.7 but not the source equipment.

 Ensure the IR emitter is connected to the correct IR output port on the MZA-4.7.

No control at all.

- The KEY-5.7 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

Troubleshooting—Continued

keypad is functioning correctly ie. Source key flashes when a key with learnt function is pressed. Try replacing the IR emitters - these are readily damaged if connected across the Controller Interfaces power supply.

Keypad does not track the MZA-4.7.

 Ensure the data termination has integrity, and is not shorted to other conductors in the CAT5E. Ensure the keypad is correctly zoned.

Specifications

IR Learning

Compatible with virtually all brands of remote controls using carrier or modulation frequencies between 20KHz and 500KHz.

Also capable of learning non-modulated pulse codes with a minimum pulse width of 10µs.

Memory

12Kbytes - IR codes are stored in Flash memory.

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 200 m of CAT5E home run cable.

Voltage Current

12 V DC ±3 V Typically 50 mA, Max=120 mA

Dimensions

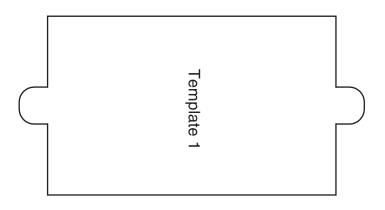
Cover Plate: Width = 75mm, Height = 120mm,

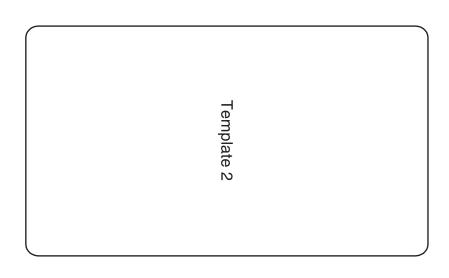
Depth = 4.6mm

Depth behind plate = 20mm

Compliance

ICES-003, FCC.





Memo

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