IA40-3

Amplifier

Owners Manual

MONITOR AUDIO

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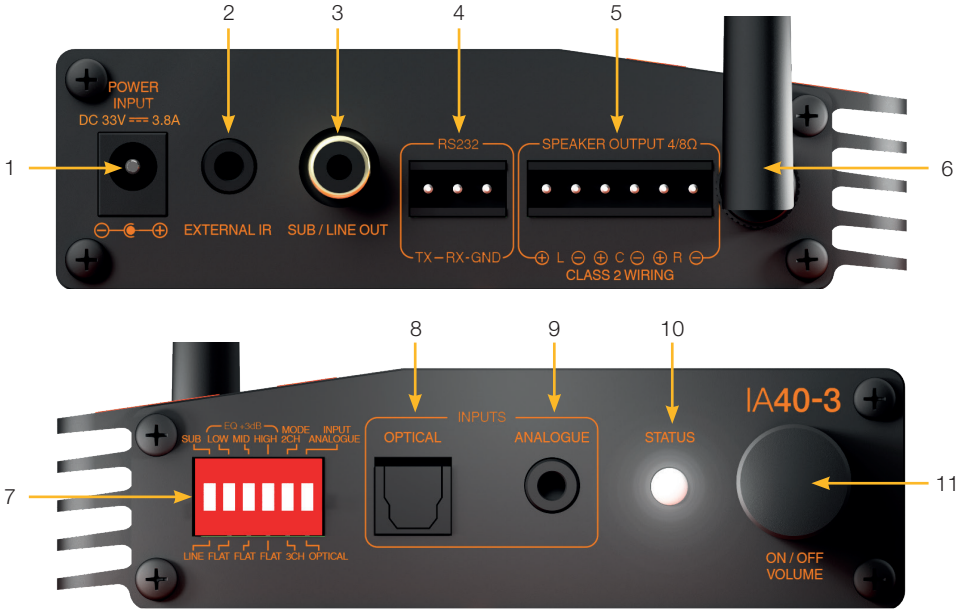
Front and Rear Panel Layout



1. ## Power Input
   Connect the supplied power supply output lead here. Use ONLY the appropriate IEC mains lead and power supply provided with the product.

2. ## External IR
   Connect the supplied IR Receiver. This is used for learning remote codes and to control the amplifier. A remote must be paired in order to enable Bluetooth searching.

3. ## Sub/ Line Out
   Line level output for connecting to an active or another mono device.

4. ## RS232
   For use with home automation systems and uses a block connector for the wiring configuration and set up protocol.

5. ## Speaker Output
   Accepts up to 12 gauge cable for connecting speakers.

6. ## Antenna
   Comes unattached from the unit and should be connected to the IA40-3 for Bluetooth. To fit the antennae simply tighten it onto the threaded input on the amplifier.

7. ## EQ and Input Dip Switches
   Two position switches for selecting between options listed above and below the switches.

8. ## Optical Input
   Used to connect digital optical audio source to the IA40-3 using a SPDIF connector.

9. ## Analogue Input
   Used to connect an analogue stereo audio source to the IA40-3 using a 3.5mm stereo mini jack connector.

10. ## Status LED
    Will light up different colours static or flashing to indicate different operations, refer to the next page for more information.

11. ## Multi-Function Encoder
    Controls volume up and down via rotation, power control and configuration as well as Bluetooth and Remote pairing.

Status LED Guide

Standby/ Sleep: **Red**

Analogue/ PCM: **Green**

Bluetooth Connected: **Blue**

IR Learning Mode: **Purple Blinking**

Time-out to Standby Selected: **Green Blinking**

Power On/ No Signal: **White**

Dolby: **Purple**

Bluetooth Pairing: **White Blinking**

Time-out to Sleep Selected: **Blue Blinking**

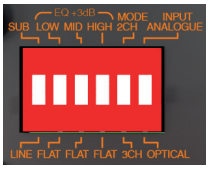
Setting Up the IA40-3

Standby and Sleep Settings

There are two modes the IA40-3 can operate when the Status LED is illuminated red, Standby or Sleep mode. In Standby mode the IA40-3 can only be turned on by pressing the Multi-Function Encoder or through RS232 control. Setting the IA40-3 in the sleep mode enables auto-on input signal sensing and will turn the IA40-3 'On' when there is a signal present and will automatically turn 'Off' when there is no signal present for 5-7 minutes.

With the amplifier 'Off' (red Status LED) press and hold the Multi-Function Encoder for approximately 10 seconds, or until LED starts blinking blue or green for 3 seconds. If the Status LED blinks blue it is in Sleep mode. If it blinks green it is in Standby mode. To change the mode simply repeat the above.

Dip Switch Settings



The first switch sets the phono pre-output setting of the amplifier. When the dip switch in the up position to ‘Sub’ a 120 Hz 2nd order low pass filter is engaged. When in the downwards position to 'Line' that crossover is disengaged.

There are two EQ settings each with the LOW, MID and HIGH frequency controls. In the FLAT setting the audio will be played with no changes made to the sound. In the +3dB setting the frequencies will be boosted by 3dB. LOW is applied at 100 Hz, the MID at 1.05 kHz, and the HIGH at 8 kHz.

The channel switch should be set in accordance with the number of channels being used. 2 Channel mode should be used for stereo applications and the 3 channel mode should be used when a centre channel is introduced, for example when driving a passive soundbar.

The input switch is used for selecting between the wired inputs. The analogue input (up position) uses the 3.5mm wired jack input and the optical input (downwards position) uses the wired SPDIF input.

Remote Control Code Learning

Note: This section must be completed before any Bluetooth devices can be paired.

1. Connect the supplied IR receiver to the External IR port on the amplifier.
2. Connect the 33V AC power adaptor and turn 'On' the unit by pressing the Multi-Function Encoder.
3. Press and hold the Multi-Function Endocder on the unit it starts blinking purple (5 seconds).
4. Point any IR remote control (not supplied) at the IR receiver and press the volume up button 3 times, the Status LED will blink purple 3 times rapidly.
5. Repeat step 4 with the volume down button. The Status LED will blink purple 3 times rapidly.
6. Repeat step 4 with the mute button. The Status LED will blink purple 3 times rapidly and then turn solid white. The amplifier is now programmed and will respond to the remote control volume commands.

IMPORTANT: Put the unit into standby mode and wake it up again to store the remote control before removing the power.

Pairing with a Bluetooth Device

Note: Bluetooth devices cannot be paired until a remote has been set up with the amplifier, refer to the 'Remote Control Codes Learning' section.

1. Turn the IA40-3 amplifier 'On' by pressing the Multi-Function Encoder. The Status LED will turn white.
2. Press and hold the mute button on remote control (not supplied) for 3 seconds. The Status LED will blink white for 1 minute or until paired.
3. Select "IA40-3" in your Bluetooth device settings to pair with the amplifier.
4. Bluetooth will take priority over any wired audio signal when streaming audio. When you stop or pause Bluetooth audio wired audio will resume playback.

Fitting the Mounting Bracket

The IA40-3 is supplied with 3 mounting brackets, 2 for fitting to the product and a spare. The brackets are attached using 4 supplied screws. Fit these through the bracket holes shown into the inserts on the base of the IA40-3, locations are circled in this illustration.

Mounting Examples

Supplied with the IA40-3 are the options of velcro strips and brackets for multiple mounting configurations. The bracket can be adjusted to fit most mounting applications by bending or snapping off the extended segments. You can even introduce an angle for mounting in corners. Here are some examples of various mounting options.

NOTE: The IA40-3 should always be mounted in an accessible location.

The power supply can be tucked away elsewhere or cable tied to the unit.

RS232

The IA40-3 can be controlled via the RS232 port by sending a string of ASCII commands.

RS232 Wiring Configuration

The RS232 communication socket uses a standard block connector from a 9 Pin D-Type Socket. This should be wired as illustrated on the amp panel and as shown below.

	9 Pin D-Type Socket Pin Number
TX	3
RX	2
GND	5

RS232 Communication Set-Up Parameters

Baud Rate: 115200

Data Size: 8

Parity: None

Stop Bits: 1

Handshaking/ Flow Control: None

Command Protocol

Each string of commands sent to the IA40-3 must follow the same structural protocol. These commands are detailed in the Command List opposite. To control the IA40-3 using RS232 commands, specific strings of characters must be sent to the amplifier. Each command string should be terminated by **<CR>** (the ASCII carriage return character, 13 decimal). If using a Terminal Emulator such as Tera Term just hit the enter key.

Command List

The following ASCII commands control the operation of the IA40-3:

Amp On	AON
Amp Off	AOFF
Volume Up 1 Step	UV1
Volume Down 1 Step	DV1
Volume Up 5 Steps	UV5
Volume Down 5 Steps	DV5
Mute	MUTE 1
Unmute	MUTE 0
Get Current Volume	GV
Send Volume Setting	SV 0-81
Reset	RESET

Note: The mute command is followed by a space then a 0 or 1.

The SV command is followed by a space then a value in the range of 0-81 to set the volume level.

All other alphanumeric variables have no space. Reset sets the amp in sleep mode, volume at 40 and clears the remote codes.

Warranty

Both the craftsmanship and the performance of this product is covered by the manufacturer's warranty against manufacturing defects provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. For the period of cover please refer to the product page on our website: monitoraudio.com for the product you have purchased.

When purchasing Monitor Audio products, please keep your receipt of purchase safe, as this validates your warranty.

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Owner Information

Product Details

Product Serial No: _____

Date of Purchase: _____

Dealer Details

Dealer Name: _____

Address: _____

_____

Post code: _____

E-mail address: _____

Specifications

	IA40-3
Number of Output Channels	3
Power (W / Channel) 4 Ohms @ 1 kHz	60 W @ 1% THD+N for 2 Channel 40 W @ 1% THD+N for 3 Channel
Power (W / Channel) 8 Ohms @ 1 kHz	50 W @ 1% THD+N for 2 Channel 30 W @ 1% THD+N for 3 Channel
Input Impedance	10 k Unbalanced
Output Impedance (Sub/ Line Out)	1.47 kΩ
Input Sensitivity	~300 mV - Full Power
Maximum Input Voltage	2.3 V
Signal to Noise (SNR)	> 84 dB Unweighted
Frequency Response (+- 0.5 dB) @ 1 W	10 Hz - 20 kHz
Total Harmonic Distortion (THD+N @ 1 W, 2ch 8 Ohms, Full Bandwidth)	< 0.05 %
Dimensions Excluding Mounting Brackets and Antenna (H x W x D)	180 x 110.5 x 31.4 mm $7^{1/16}$ x $4^{3/8}$ x $1^{1/4}$ ”
Dimensions Including Mounting Brackets (H x W x D)	196 x 182.5 x 32.6 mm $7^{11/16}$ x $7^{3/16}$ x $1^{5/16}$ ”
Mains Operating Voltage	100-240 VAC, 50/60 Hz
Fuse Rating (Power Supply)	3 A
Standby Power Consumption	< 0.5 W
Weight (Amp + RS232 Terminal Block + Speaker Terminal Block + Antenna) - No Brackets	0.484 kg 1 lb 2 oz
Bluetooth	Yes
Bluetooth Range with Antenna (Line of Sight)	> 20 m
Bluetooth Version	4.1
Bluetooth Profiles	A2DP, AVRCP
Audio Codec	SBC, Apt-X

Monitor Audio reserves the right to alter specifications without notice.

FCC & IC Radiation Exposure Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

Limited by local law regulations, version for North America does not have region selection option.

This radio transmitter (5928A-MA439113) has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Gain of antenna: 2dBi max.
Type of antenna: 50ohm, Omni-directionnel

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Made In China

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