ATC CDA2

User Operating Manual

ACOUSTIC ENGINEERS

Description

The CDA2 Stereo CD Pre-Amplifier has been designed to partner ATC active, and with an appropriate Power Amplifier, passive loudspeaker systems. It incorporates 2 line-level analogue stereo inputs on RCA phono sockets, together with a 3.5mm Jack socket input, an internal CD Player system, 2 digital SPDIF Optical Toslink inputs and 2 digital SPDIF Coaxial inputs on RCA phono sockets. A main line level stereo output on RCA phono sockets, true differential Left and Right outputs on XLR sockets and a headphone output on a ¼" jack socket.

Selection of CDA2 inputs is achieved via an input push button mounted on the front panel, the selected input being shown in the display window. Output volume is adjusted by a precision motorized potentiometer. Standby is accessible by a push button on the front panel, and is indicated by a red LED above the button. Above the input selector switch is another red LED to indicate that the output has been muted.

Mains power is applied from a rear panel mounted push button.

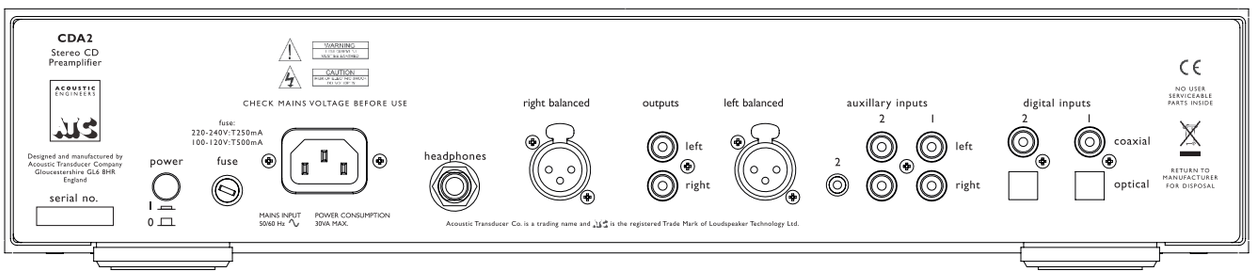
Inputs

The CDA2 will accept unbalanced RCA phono style input plugs on Analogue inputs 1 and 2. Analogue input 2 will also accept a 3.5mm stereo jack plug. The signal on unbalanced phono inputs is present on the centre conductor and the signal return is made via the screened outer. The ring of a 3.5mm stereo jack input plug carries the right channel signal, the tip carries the left channel and the body is the signal return for both left and right channels. If there is any hum present on the output this must be traced to its source and not suppressed by the removal of screens and earths. Removal of the screen on an unbalanced input will result in uncontrollably loud hum.

Connection to the Digital Inputs can be either Coaxial via RCA phono style input plugs or Optical via TosLink connectors.

The input sockets are illustrated in Diagram 1.

Diagram 1 - CDA2 rear panel and connection sockets



Outputs

The CDA2 rear panel illustrated in Diagram 1, carries sockets for main left and right output and an output for stereo headphones. Use of the headphone jack will mute the output from the main stereo output.

Connections to the main output may be by RCA phono plugs or XLR plugs. Connections to the XLR output sockets follow the convention of pin 1 to ground, pin 2 to signal "hot" and pin 3 to signal return "cold". When connecting to equipment with XLR (balanced) inputs, the connectors should be wired pin for pin (i.e. 1 to 1, 2 to 2, and 3 to3). Diagram 2 illustrates the XLR output pin arrangement. Diagram 3 illustrates the cable arrangement for connection to balanced Inputs. Cables of up to 50 metres in length may be connected to the main stereo outputs.

Diagram 2 - output socket pins

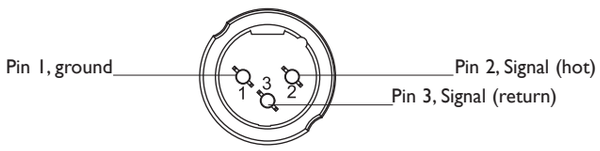


Diagram 3 - balanced cable

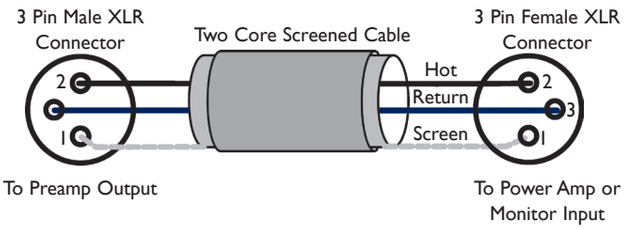
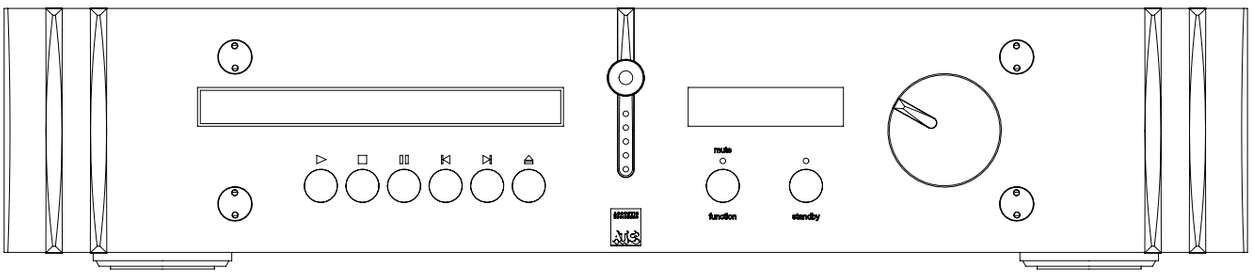


Diagram 3 - CDA2 front panel and controls



Operation

Once connected to mains power and powered up from the rear panel mains switch, the CDA2 will assume the Input selected when the unit was last turned off. Alternative Inputs may be selected by pressing the Input push button. The Input selected will be shown in the Display window.

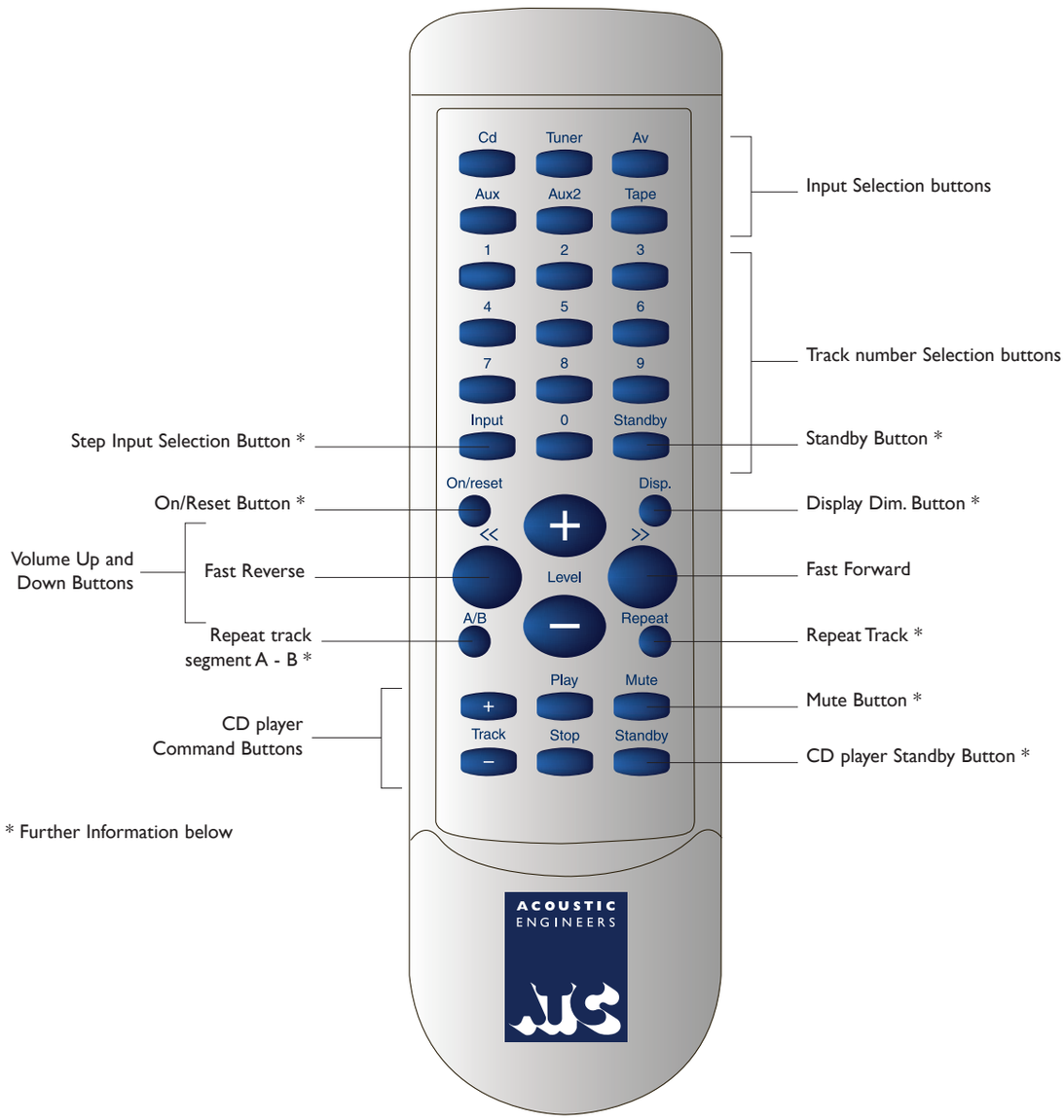
Pressing the Standby button on the front panel will place the unit into standby; the standby indicator above the standby button will glow RED.

Output level is controlled by the rotary Volume control on the front panel, the position of which is indicated by a black pointer. Rotating the control clockwise will increase the output level. It is good practise to lower the volume setting before switching on the unit or any associated equipment, or while changing the input selection.

CD player commands are entered by 6 push buttons on the front panel below the disc tray. Commands, functions and disc information are all shown in the display window.

All of the above commands, functions or selections are duplicated on the ATC R2 Remote Control.

Diagram 4 - ATC R2 Remote Control



Step Input selection: Each press of the Input button will select the next Input. The Input selected will be displayed in the Display window

On/Reset: This button is for use on other ATC equipment.

Repeat track segment A – B: The first press of the button marks the start of the track segment to be repeated. The Display will show A -.

A second press of the button marks the finish of the track segment to be repeated. The Display will show A – B, and the track will be replayed continuously from A to B, unless Stop is pressed.

A third press of the button will cancel A – B repeat.

Standby: The Standby button will place the complete unit in Standby. Standby is indicated by a Red LED illuminating above the Front panel Standby button.

Display Dim: Pressing the Dim button will sequentially step between three Display brightness's, Full, Low and Display off.

Repeat track: The first press of the button will repeat the entire disc. RPT A will be shown in the Display.

The second press of the button will repeat the particular track selected. RPT B will be shown in the Display.

A further press of the button will cancel Repeat functions.

Mute: Pressing the Mute button will mute the output from the unit but not the headphones. The Mute LED above the Mute button will illuminate.

CD player Standby: When the CD player Standby button is pressed, only the CD player will be placed in standby. Standby is shown in the Display window if CD input is selected, all other inputs function and display as normal.

Specifications

Pre-Amplifier

Maximum Output Level:	Phono XLR	9.2V r.m.s. 18.4V r.m.s.
Line Input Sensitivity (For 2V Output):	640mV	
Input Impedance:	13k8 Ohms	
Output Impedance:	10 Ohms	
Frequency Response (-3dB):	< 2 Hz - > 280 kHz	
Total Harmonic Distortion:	1 kHz 10 kHz 50 kHz	<0.001% (-100dB) <0.0015% (-96 dB) <0.002% (94dB)
Crosstalk (10Hz – 20kHz)	>90dB	
S+N/N Ratio:	> 97 dB (Wide band) > 105 dB (DIN) > 110 dB (IEC "A")	
Overload Capacity:	13dB	
Absolute Phase:	Phono XLR	Zero Degrees Zero Degrees, Pin 2 Hot
XLR CMRR (100Hz - 10 kHz)	> 60dB	

CD Player

Distortion:	1 kHz 10 kHz	<0.002% (-94dB) <0.003% (-90dB)
Frequency Response (+/- 0.1dB):	20 Hz – 20 kHz	
S+N/N Ratio:	>100dB (IEC "A")	

Digital Inputs

Distortion:	1 kHz 10 kHz	<0.003% (-90dB) <0.005% (-86dB)
Frequency Response (+/- 0.1dB):	20 Hz – 20 kHz	
S+N/N Ratio:	>96dB (IEC "A")	
Word Lengths Supported:	16 – 24 Bit	
Sample Rates Supported:	44.1kHz, 48kHz, 88.2kHz, 192kHz	

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Loudspeaker Technology Ltd Gypsy Lane, Aston Down, Stroud, Gloucestershire GL6 8HR United Kingdom

Telephone 01285 760561 **Fax** 01285 760683

Email: info@atc.gb.net **Web:** www.atcloudspeakers.co.uk