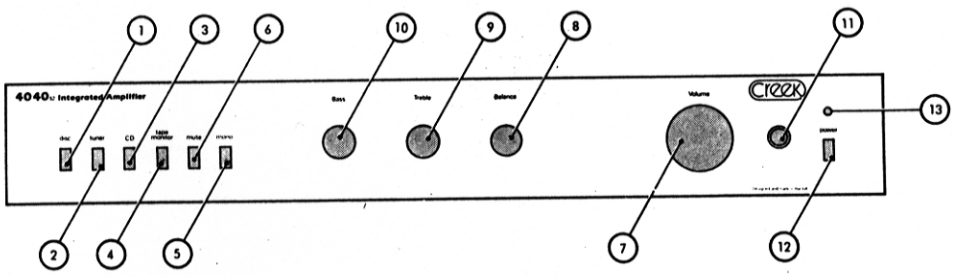
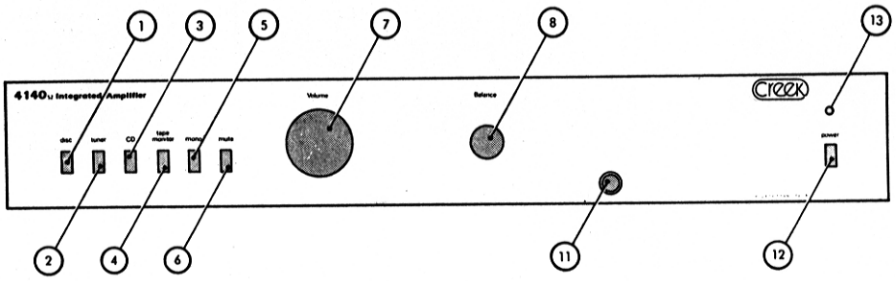
Creek
AUDIO SYSTEMS

Instructions for use
Integrated Amplifiers

CAS 4040 & 4140





Front panel layout and operation details

Number	Description				
1 Disc	Disc input selector	4 Tape	Tape Monitor Selector	9 Treble	Treble lift and cut - 4040 only
2 Tuner	Tuner	5 Mono	Mono/Stereo Selector	10 Bass	Bass lift and cut - 4040 only
3 CD/Aux	Auxillary/Compact Disc	6 Mute	22dB Level Reduction	11 Phones	Headphone Socket
		7 Volume	Volume Control	12 Mains	Power On/Off
		8 Balance	Left, Right channel balance	13 Power	Power On indicator

1. Disc input selector.

This button selects the disc input. The signal will then be processed by the disc preamplifier to compensate with the correct RIAA equalisation, applied so that the frequency response will conform with the long standing RIAA frequency compensation system, and does not include any low frequency roll off.

Further details are given in the technical specification and rear panel details section 18.

2. Tuner input selector

Most medium output tuners will be suitable for use with the amplifier when this button is selected.

3. CD/Aux input selector

This selector allows for a fourth signal source to be selected such as another tuner, tape replay or Compact Disc (CD)/ Digital Audio Disc (DAD).

4. Tape Monitor selector

This selector allows for the simultaneous recording and monitoring from a tape of any of the three inputs (Disc, Tuner, CD). Tone, Balance, Volume, etc. will have no effect on the recording. Playback of a recording may also be selected using this input. On releasing the button (press again), the signal source will revert to whatever input is selected.

5. Mono

This selector brings both left and right channels together into monaural mode. If an old mono recording with excessive background noise is being played, the mono selector will reduce the high frequency noise and place the image in the middle of both speakers. It will also reduce the noise on FM stereo radio if the signal is weak.

6. Mute

This selector attenuates the signals to the volume control by 22dB which is useful when answering the telephone or changing records. It is also meant to be used if very low level outputs are required as it allows for better channel balance on the volume control.

7. Volume

This control sets the amplitude of the output, and its range of attenuation and effective maximum volume will depend on the input level of the signals being fed to it.

N.B. if a high output cartridge or tuner is selected, then the volume control will not need to be turned as far clockwise before the maximum power output of the amplifier is achieved and vice versa.

Continuing to rotate the volume control to achieve a sound level in excess of the maximum ratings will only result in distortion and possible damage to your equipment.

8. Balance

This passive channel balance control differentially alters the gain of the left and right channels. It maintains full output whilst in the middle and reduces the gain on one channel whilst increasing it on the other.

If it is necessary to set the balance control more than a few degrees from its centre position, then you should check your signal source and loudspeakers for problems.

9. Treble CAS 4040 only

Both tone controls are designed to be useful rather than dramatic. The treble control has a frequency 'hinge' point at a much higher frequency than conventional circuitry (7kHz). This means that the loss of attack or presence in a recording can be restored or merely improved without annoying phase alterations at the human ear's most sensitive frequency range between 500Hz and 3kHz. The control is of a Baxendall type with both lift and cut.

10. Bass CAS 4040 only

This control operates in a similar way to the treble control but its hinge point starts at about 60Hz and rises with control rotation to approximately 120Hz. Again, this is more functional than dramatic, and has the advantage of adding another octave of bass extension to smaller speakers without colouring the higher frequencies.

11. Headphone Socket

This is a standard ¼" jack socket for use with low impedance headphones. When the loudspeakers are connected to the switched output terminals at the rear, inserting the headphones will automatically disconnect the speakers. Check the rear panel details for further information (section 3).

12. & 13. Power ON/OFF & LED indicator

This is the mains ON/OFF switch, with a mains fuse fixed to the rear panel. When the power is on, the LED will light.

purpose with the amplifier.

NB. Although both the 4040 and 4140 are equipped with electronic protection circuitry, it is strongly recommended that the amplifiers' outputs are not shorted or joined together whilst the amplifier is switched on as damage can occur.

It is also advised that the amplifiers are not connected to more than one pair of loudspeakers at a time, and that 8ohm and not 4ohm nominal impedance speakers be used as a preference.

9. Amplifier heatsink

This black aluminium extrusion is the power amplifier heatsink. Care should be taken to make sure that it is ventilated properly, as prolonged high power operation will raise the heatsink to a high temperature, and may not only burn you if you touch it, but also you risk igniting any inflammable material placed near to it. So keep it away from curtaining etc., and always place the amplifier **on top** of any other equipment such as tuners and tape recorders.

10. Tape Output Left
11. Tape Output Right } From Tape Recorder

12. Tape Input Left
13. Tape Input Right } To Tape Recorder

14. (L) & 15. (R) CD input

This socket is for any auxillary piece of equipment.

16. (L) & 17. (R) Tuner sockets

These sockets are for the connection of tuners with medium/low output levels.

18. (L) & 19. (R) Disc sockets

These sockets are specifically for connecting a wide range of pick-up cartridges. The CAS 4040 can only amplify and correctly match Moving Magnet cartridges, of about 2mVolts output, plus high output moving coil types. In the 1987 version of the CAS 4140 Serial Nos. A102390, an extra circuit is fitted to allow for use of low output Moving Coil cartridges, from 100μVolts upwards. A switch is used on the PC board to select either MC or MM. See diagram 1. No extra matching components are required for Moving Coil, as the circuit automatically compensates for different cartridges.

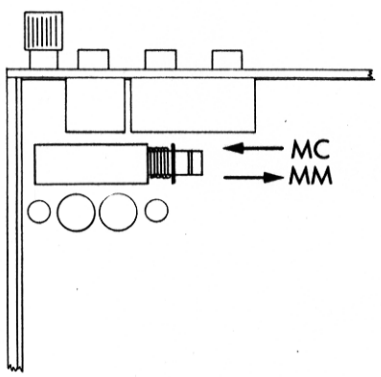
NB. In some cases, more capacitance will be required to properly damp the MM cartridge of your choice. This will need fitting externally. Please consult your dealer if in doubt.

20. PU Earth terminal

The pick-up arm and metal chassis parts of your turntable will need earthing, and this should be seperate from the

signal earth returns. This is achieved by screwing the bare wires or tag into the earth terminal next to the PU input socket.

Diagram 1.



IMPORTANT NOTES

1. These amplifiers are designed to work into 8ohm loudspeakers only.

2. A least one minute is required after switch on before these amplifiers will produce their rated performance.

3. HT fuses are fail safe devices and if blown usually indicate a terminal fault in the equipment.

4. Speaker fuses are replaceable but usually indicate that the speaker leads or terminals have been shorted. Replacements should be only 5 x 20mm 3.15 amp slowblow.

5. Shorting the loudspeaker output will possibly damage the equipment and should be avoided at all cost.

N.B. The warranty may be affected if damaged through misuse.

1. Mains Fuse Holder

The mains input to the amplifier is interrupted by a 5 x 20mm Cartridge fuse of 2A slow-blow rating. For ease of replacement it has been fitted in a screw type holder on the outside of the chassis. Before attempting to inspect the fuse make sure that the mains plug has been removed from the wall socket. This also applies to the inspection of the internal DC supply and loudspeaker fuses. If in doubt, check with your dealer.

2. Mains lead UK specification

This three core mains lead should be connected to the mains in accordance with the colour code information. The mains lead wires are individually coloured and should be connected to the plug as follows:-
BROWN to 'L' (LIVE)
BLUE to 'N' (NEUTRAL)
GREEN/YELLOW to 'E' (EARTH)
If in doubt consult your dealer or a qualified electrician.

Equipment manufactured for Export will usually be fitted with a mains lead and moulded plug required for the specific country.

3. & 4. Left & Right switched loudspeaker outlets

This white socket is connected to the amplifiers' output, via the headphone socket, and if a plug is inserted into the headphone socket then the loudspeakers will be switched off.

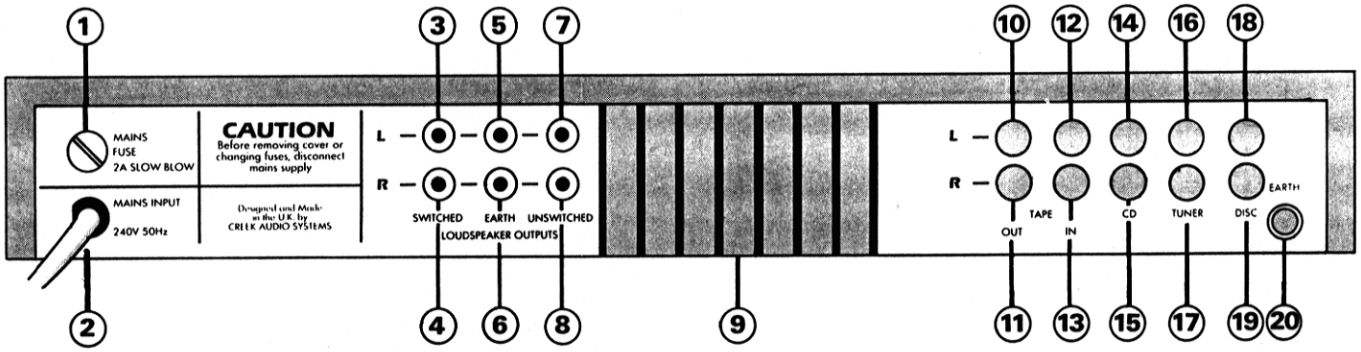
5. & 6. Loudspeaker earth

Both sockets are for the left and right speaker earth returns, and should be used for switched and unswitched applications.

7. & 8. Left and Right unswitched loudspeaker outlets

For the best sonic results it is advised to connect the positive wire from the loudspeakers to the amplifier via the unswitched outlet. On the 4040S2 the socket is interrupted by a passive 3.15A slow blow fuse, to protect the amp and the speakers from one or other components failing, and to provide added short circuit protection to the amplifiers built in active current protection. The 4140 has a high current relay interrupting the speaker outlet and its' function is to stop switch on/off thumps and noises, stop any undue direct current appearing on the loudspeaker outlets which would destroy the woofer, and to provide a degree of short circuit protection to the amplifier.

Connection to these sockets should be made only by a proprietary make of 4mm plug, preferably soldered onto the speaker cable. Two soldered pairs are provided for this



Rear panel layout and connection details

Number	Description				
1	Mains Fuse Holder	8	R unswitched speaker output	15	R CD input
2	Mains lead	9	Heatsink	16	L tuner input
3	L switched speaker output	10	L tape output	17	R tuner input
4	R switched speaker output	11	R tape output	18	L disc input
5	L earth	12	L tape input	19	R disc input
6	R earth	13	R tape input	20	Earth terminal
7	L unswitched speaker output	14	L CD input		

4040S2 TECHNICAL SPECIFICATION

Power Output Nominally 35W (=15.4dBW)

Measured at frequencies	20Hz	1Khz	20Khz
One channel 8ohms	15.8	16.1	15.9 dBW
Both channels 4ohms	11.7	13.2	13.0 dBW

Instantaneous peak current = 11 amps
Protected by current and voltage limiting in power amp

Distortion

Measured at frequencies	20Hz	1Khz	20Khz
THD at rated power	−50dB	−68dB	−66dB

Intermod 19/20Khz rated power AUX input −75dB

Noise

Disc MM input IHF, CCIR weighted	−76dB
Tuner/CD input, IHF, CCIR weighted	−79dB
Residual unweighted, vol. at min.	−80dB

Separation

Disc input measured at 1Khz	−50dB
CD input measured at 1Khz	−60dB

Output Impedance measured at 1Khz 0.15ohm

Tone Control Range ±10dB 20Hz & 20Khz

Input Data	Sensitivity	Loading
Disc MM input	2mV	47K 60pf
Tuner input	250mV	35K 25pf
CD input	500mV	22K 25pf

Output from tape 10V max. 1K
Disc Eq Error 20Hz-20Khz +0.5dB −0.5dB
Size (width height depth) 420 x 64 x 220mm
Weight 4kgs

4140S2 TECHNICAL SPECIFICATION

Power Output Nominally 40W (=16.0dBW)

Measured at frequencies	20Hz	1Khz	20Khz
One channel 8ohms	17.0	17.5	17.0 dBW
Both channels 4ohms	13.5	14.0	13.5 dBW

Instantaneous peak current = 15 amps
Protected by current limiting in power amp

Distortion

Measured at frequencies	20Hz	1Khz	20Khz
THD AUX input	−65dB	−65dB	−60dB

Intermod 19/20Khz rated power AUX input −75dB

Noise

Disc MM input IHF, CCIR weighted	−76dB
Disc MC input, IHF, CCIR weighted	−79dB
Tuner/CD input, IHF, CCIR weighted	−84dB
Residual unweighted, vol. at min.	−84dB

Separation

Disc input measured at 1Khz	−60dB
CD input measured at 1Khz	−65dB

Output Impedance measured at 1Khz 0.1ohm

Input Data	Sensitivity	Loading
Disc MM	2mV	47K 200pf
Disc MC	0.1mV	1K
Tuner input	250mV	55K 100pf
CD input	500mV	22K 100pf

Output from tape 8V max. 1K
Disc Eq Error 20Hz-20Khz +0dB −0.5dB
Size (width height depth) 420 x 64 x 220mm
Weight 4.5kgs