

SSP100 Quick Setup Guide

Introduction

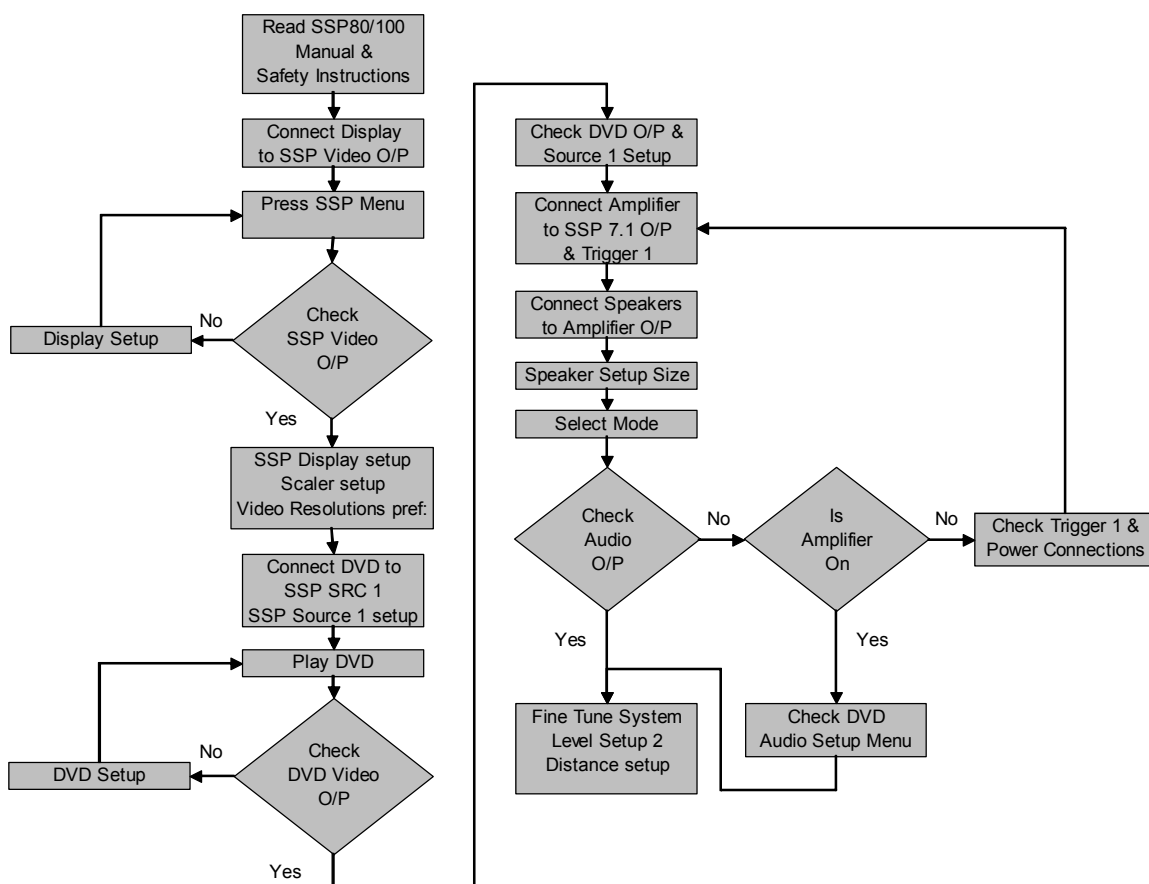
The purpose of this quick setup guide is to enable an individual with minimal experience of the SSP100 to get the SSP operational within a home cinema. The first steps are,

- Get a picture on the screen or display
- Connect a source e.g. DVD player and get its video onto the display
- Get the audio system operational

When the system is operational the fine-tuning of the system can begin.

Setup Overview

The flow chart below indicates typical steps required to get a home theatre connected and operational to the point where fine-tuning can commence. The flow chart assumes the audio system is in place. If the audio system is not in place connect a display and source to the SSP100 and continue with the setup.

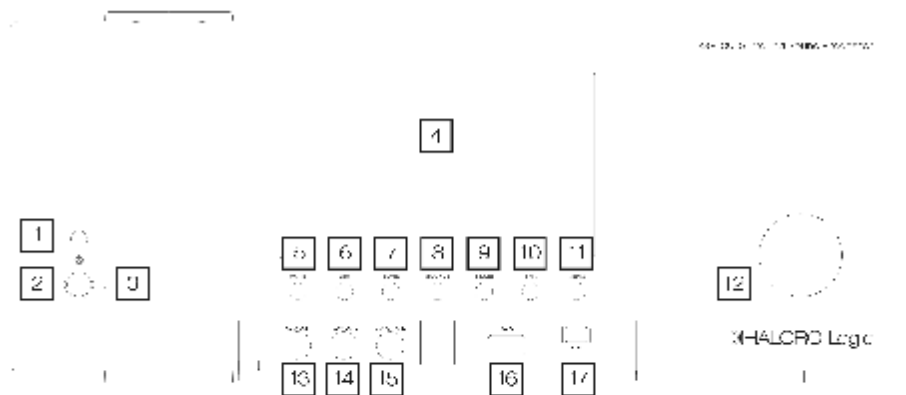


The sequence in the flow chart above shows a typical setup but it is not necessary to follow the sequence as outlined. The steps which follow show how to get a video picture on the main display, how to setup a source and how to get the audio system working.

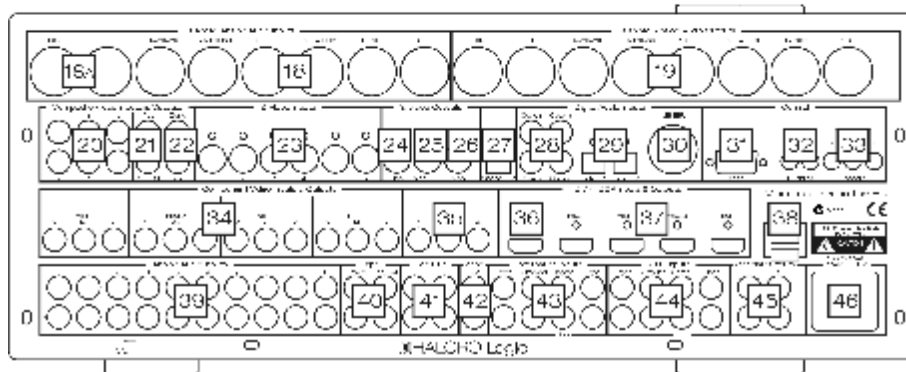
It is essential to understand the capabilities and specifications of the display and sources to ensure you get the best performance from your system. It is as important to setup the display and sources correctly as it is to set up the SSP100 correctly.

SSP100 Front and Rear Panels

Front Panel Controls



Rear Panel Connections



Front Panel

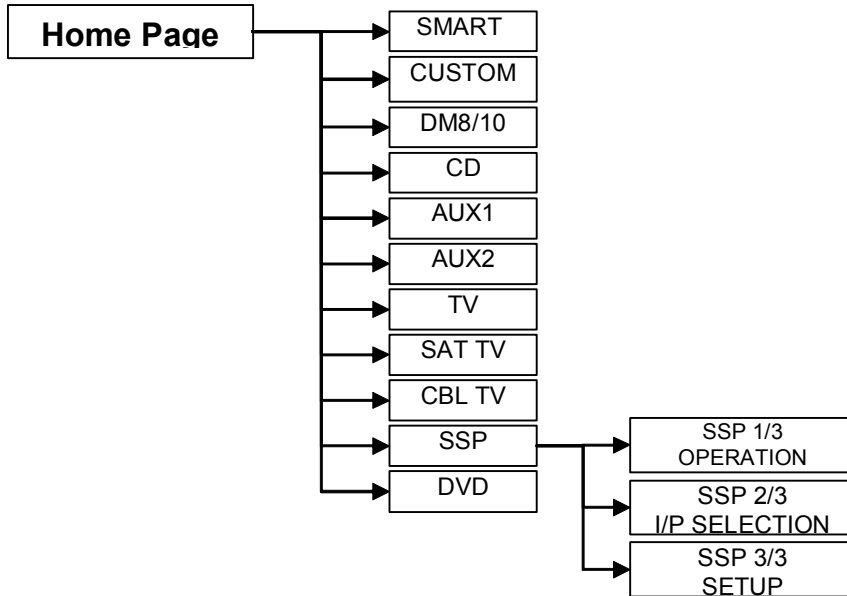
1	IR receiver	10	THX button
2	Standby/On button	11	Menu
3	Standby LED	12	Volume control
4	Display	13	Headphone audio output 1
5	Mute Button	14	Headphone audio output 2
6	DM button	15	Microphone input socket
7	Zone button	16	RS232 control interface
8	Source button	17	USB control interface
9	Mode button		

Rear panel

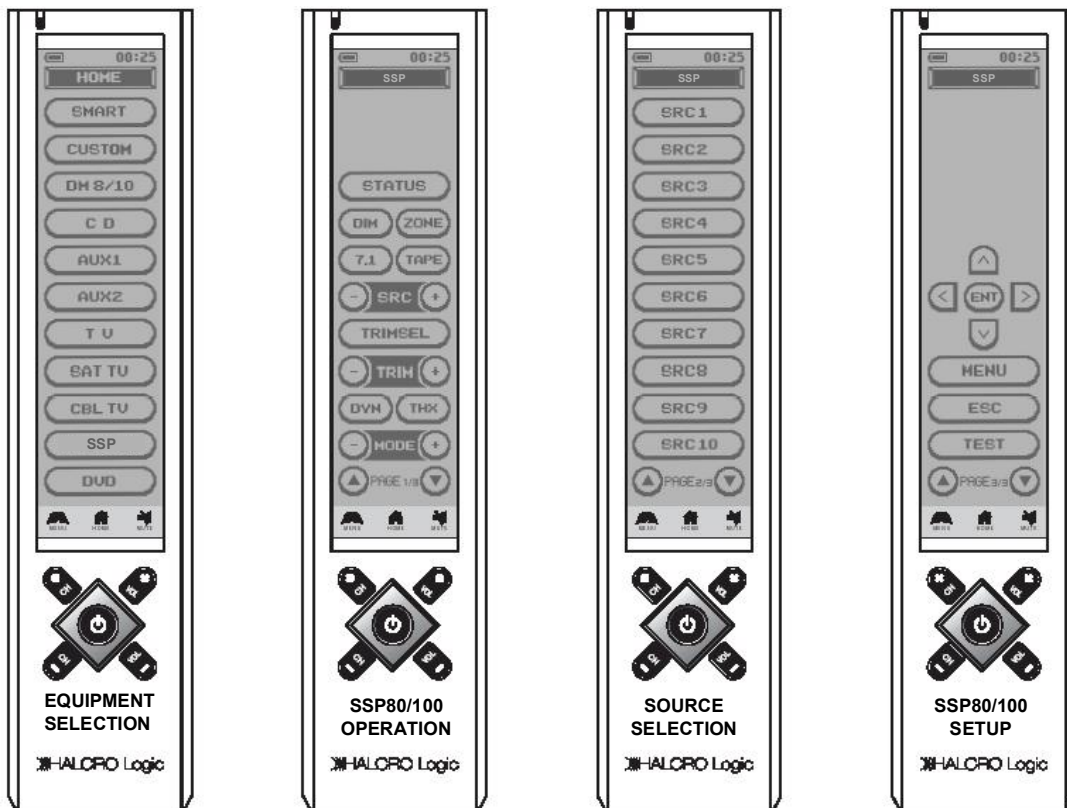
18	7.1 balanced audio input (SSP100)	32	IR inputs
18a	Stereo balanced audio input	33	Trigger outputs 1 to 3
19	7.1 balanced audio outputs	34	Component video inputs
20	Composite video inputs 1 to 6	35	Component video outputs
21	Composite video outputs Rec & Mon+OSD	36	HDMI™ outputs
22	Composite video outputs Zone & Mon	37	HDMI™ inputs
23	S-Video inputs 1 to 6	38	USB control interface
24	S-Video REC output	39	Analog audio inputs 1 to 10
25	S-Video monitor output (with OSD)	40	Tape input/output
26	S-Video monitor output (without OSD)	41	Record outputs 1 to 2
27	Optical digital output	42	Zone audio output
28	Coaxial digital audio inputs 1 to 4	43	External 7.1 audio input
29	Optical digital audio inputs 1 to 2	44	7.1 unbalanced audio output
30	AES/EBU balanced digital audio input	45	Special audio outputs 1 & 2
31	RS232 control interface	46	Power socket and mains switch

Remote Control

The remote control layout is shown below. The home (top) page details the different pieces of equipment in the home theatre system, which can be controlled by the remote. When the SSP is selected the first of three SSP pages is activated. The up/down arrows at the bottom of the display can be used to scroll through them. Pages 1, 2 and 3 contain the keys for SSP100 operation, source input selection and setup keys.



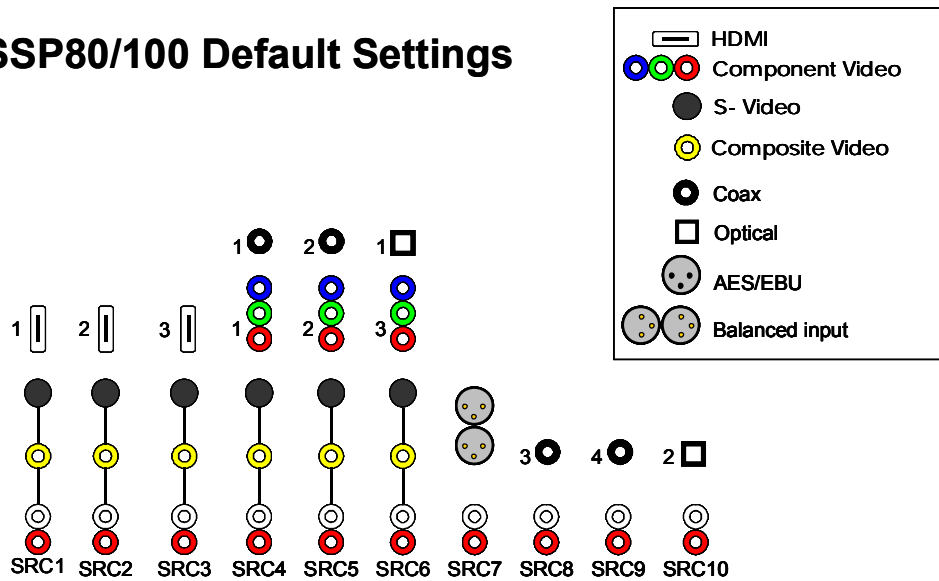
Remote Control Layout



SSP100 Default Settings for Input Sources 1- 10.

To simplify the setup of the SSP100 the factory default settings are in place. To get a video and audio signal from HDMI sources without going into the setup menu simply connect the source HDMI output to SSP100 HDMI inputs 1, 2 or 3. For sources with component video outputs use component video inputs 1, 2 or 3. See "SSP80/100 Default Settings" below.

SSP80/100 Default Settings



Points to note on the default settings,

- The first six source inputs are audio / video and the last four, 7 – 10 are audio only. It is important to remember that the composite video and S-Video inputs 1-6 are directly linked to analog audio inputs 1-6 and source 1-6 respectively.
- Assignable audio and video inputs can be assigned to all 10 source inputs. Assignable inputs are
 - HDMI 1 – 4
 - Component video 1 – 4
 - Digital audio coaxial 1 – 4
 - Digital audio optical 1 & 2
 - AES/EBU (SPDIF)
- To see the video on the front panel display always connect the composite video output of a source to the SSP100 composite inputs
- To see the volume level from audio sources set the video type to Up-conv

Note: When a digital audio input is active it takes priority over an analog input to that source.

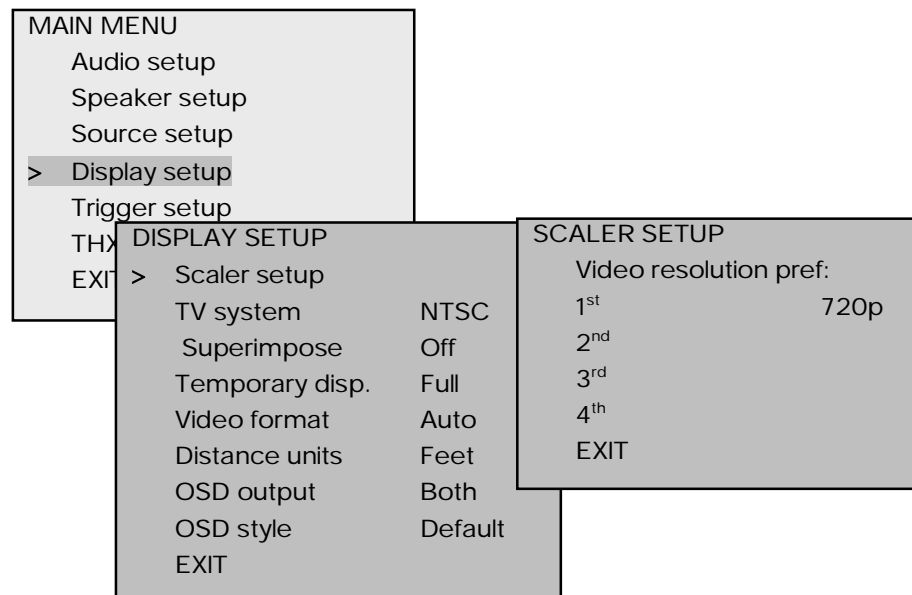
System Setup (HDMI)

1. Display Setup

- Connect the SSP HDMI output to the display (Projector, Plasma, LCD) HDMI input
- to match the display's native resolution, 480i/576i, 480p/576p, 720p, 1080i or 1080p. Set the display to operate from the HDMI input (**see display system setup menu in its owner's manual**)
- Switch on mains power to the SSP100 and turn the SSP On
- Press MENU button (11) or the remote control key MENU and the SSP100 setup menu will appear on the front panel display



- Select Display setup and select scaler setup. Set the SSP100 Video resolution preference



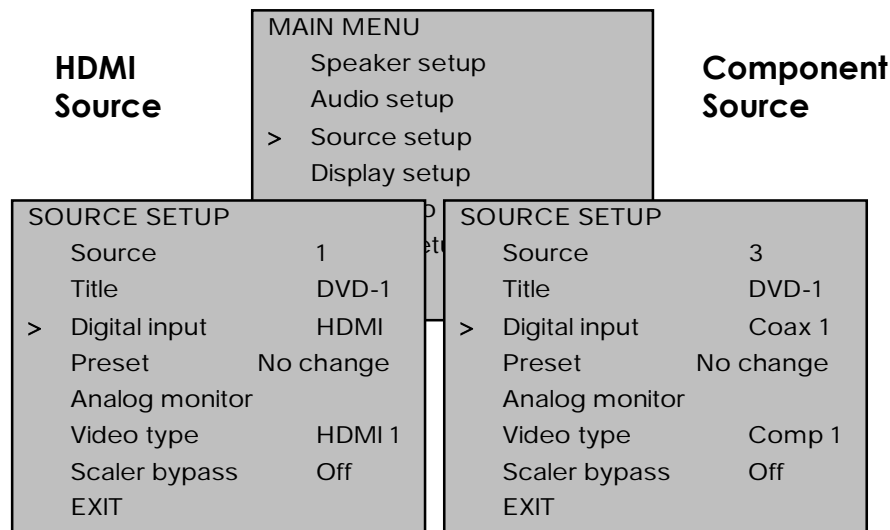
- Press the remote Menu key or select EXIT to exit the menu and save the source setup settings
- Press MENU and the SSP100 menu will be shown on the front panel and main display output.

Notes:

- It is important to setup the display (projector, Plasma screen etc.) to accept the required video inputs
- The SSP100 front panel display will only show interlaced SDTV video (480i/576i)
- A HDMI input cannot be down-converted to an analog video output
- The SSP100 does not interlace video inputs e.g. 720p to 1080i
- The SSP100 does not scale down except for 1080i to 720p

2. Source setup

- Select SSP100 SRC 1 for a HDMI source or SRC 3 for a component video input
- Connect the DVD
 - i HDMI output to the SSP100 HDMI input 1
 - Or
 - ii Component video output to SSP100 Component input 1
- Connect the DVD composite output to the SSP100
 - i Composite input 1 for HDMI
 - Or
 - ii Composite input 3 for Component
- Connect the DVD Coax digital audio output to the SSP100 Coax 1 input for a DVD with component video output. See setup settings below



- Press the remote Menu key or select EXIT to exit the menu and save the source setup settings
- Switch on the source (DVD player) and the video will be shown on the main display output

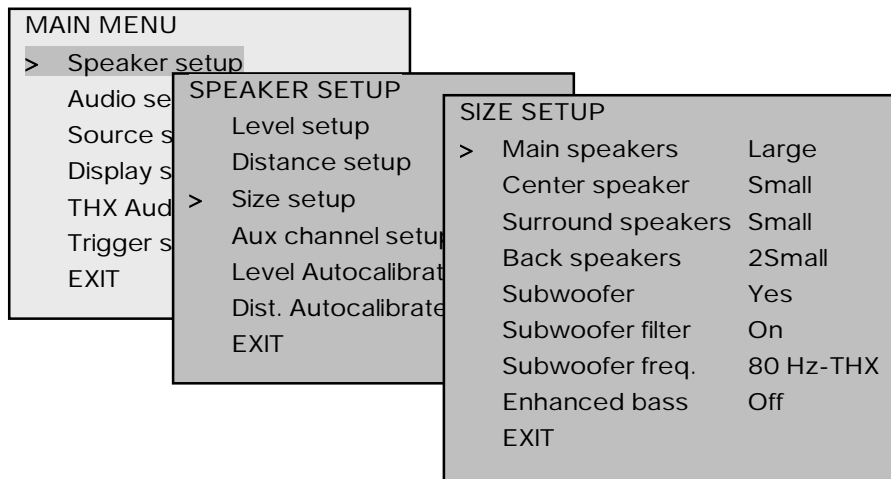
Notes:

- It is important to setup the DVD player to give the required audio and video outputs
- The SSP100 front panel display will only show interlaced SDTV video (480i/576i)
- To have video in the SSP100 front panel display at all times connect the source composite output to the relevant composite input (rear panel 20)

3. Audio Setup

To setup the audio system it is necessary to tell the SSP100 what speaker configuration you are using, e.g. 5.1, 6.1, 7.1. The SSP100 also needs to know if the speakers are Large (full bandwidth) or Small. This activates the bass management options and range of audio processing modes available for use. The audio amplifier needs to be connected to the 7.1 balanced or unbalanced outputs.

- Connect the amplifier to the SSP100 audio outputs (rear panel 19 or 44)
- Connect the SSP trigger 1 to the MC amplifier trigger input (rear panel 33)
- Speaker setup
 - In the Speaker setup menu select "Size setup" and enter the speaker size for each group. If some speaker channels are not to be active enter "No".
 - If the "Main" speakers are "Small" a subwoofer must be used
 - To save the settings press the MENU key or Exit from each page.



- Switch off the menu.
- Using the remote control set the SSP100 mode to Direct using the MODE +/- keys on the remote control. For 7.1 speaker systems select "Direct + THX



Ultra2 Cinema" or PLiK.

- Check the required output connections and A/V formats are enabled in the DVD's own setup menu
- Switch on a DVD and audio and video will be present

Trigger Setup

- Select "Trigger setup" menu
- Set trigger 1 to Power by using the left right arrows

MAIN MENU	TRIGGER SETUP	
Speaker setup	> Trigger 1 sense	Power
Audio setup	On	
Source setup	Polarity	Posit
Display setup	Delay	No
THX Audio setup	Duration	Infin
> Trigger setup	Trigger 2 sense	Power
EXIT	On	
	Polarity	Posit
	Delay	No
	Duration	Infin
	EXIT	

Note: To minimise power surges delays can be entered before the trigger becomes active

Setting up a CD player

- Select the source to which the CD player is to be connected e.g. SRC 8.
- Go to Menu / Source setup menu and enter the following settings

SOURCE SETUP		
> Source		8
Title		CD
Digital input		Coax 3
Preset		No change
Analog monitor		
Video type		Up-conv
Scaler bypass		Off
EXIT		

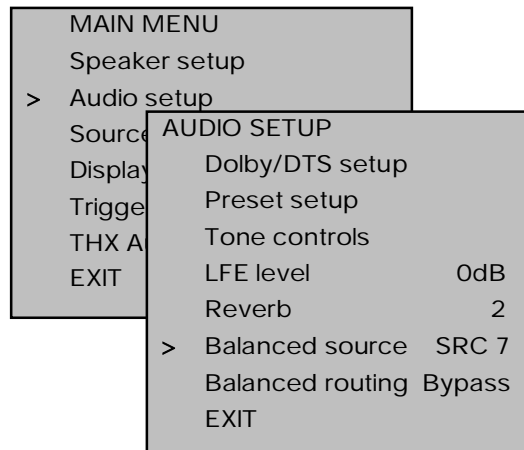
To get the volume bar on the front panel display it is essential that the Up-conv(ersion) option be selected for Video type.

If you are using an analog audio input from the CD player do not assign an active digital input from any source.

Balanced Audio Input

To assign the balanced audio input to a source, please see the menu selections below. Use the left & right keys on the remote control to scroll through the “Balanced source” input options. In the SSP100 the balanced input can be used for 2-channel, 5.1, 6.1 or 7.1 inputs.

Only the Left and right channels can be sent to the audio DSP using the “Balanced routing”. Ensure there is no active digital audio input assigned to this source in the source setup.



At this stage you have made the required connections into and from the SSP100 you have video and audio and the system is operational. Setting up other source equipment is the same as is described above. The next stage is to optimise the audio and video inputs and outputs to get the maximum possible quality from the system.

Audio Fine Tuning

Speakers can be manually optimised or auto calibrated using the SSP’s own automatic calibration system. Speaker levels can be set manually to 75dB using an SPL meter. This level corresponds with the sound levels in public theatres. We recommend automatic calibration procedure first and then check the settings manually.

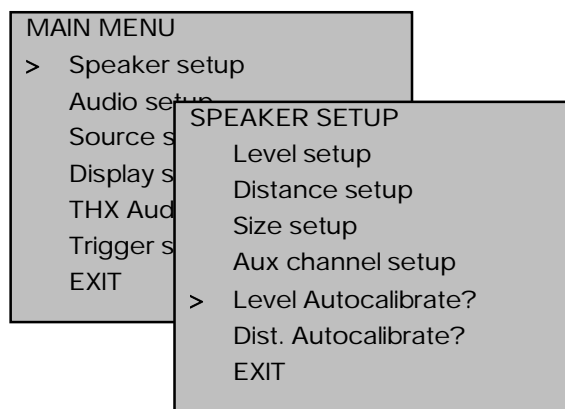
Speaker distances set by using the auto calibration may be a little different from the distances measured using a measuring tape. This is because acoustical distance is not always the same as physical distance. Acoustical distance includes the physical distance and delays brought about by speaker delays e.g. driver inertia. All distance settings are relative to the listening position. The maximum difference in relative speaker distance (from the listening position) difference is 15 feet.

The level and distance settings of auxiliary channels need to be set manually as they are not included in the auto-calibration.

Speaker Calibration

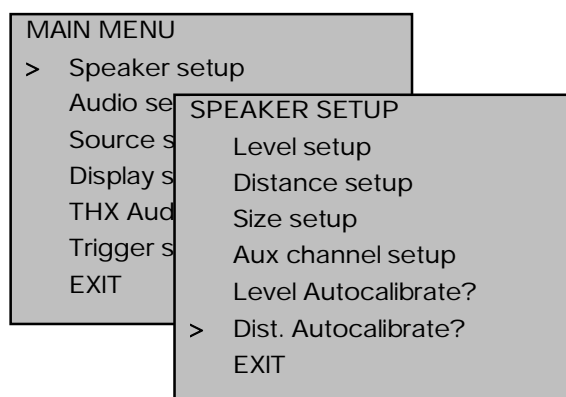
Level Autocalibrate

- Connect the microphone into its socket in the front panel (15)
- Place the microphone in the centre of the listening area with the meshed end pointing to the ceiling. Make sure there are no obstructions between the microphone and the speakers.
- Switch on the microphone (do not forget the battery)
- Select Menu / Speaker setup / Level autocalibrate / ENTER. The SSP will generate a test tone and increase until the audio level is 75dB at the microphone. As each speaker level is set the SSP will index to the next speaker until all are set.
- Check the level settings in the Level setup page



Distance Autocalibrate

- Select “Dist. Autocalibrate?” and press ENTER. The SSP will generate a test tone bursts and calibrate the distance from the listening position to the speakers. As each speaker distance is set the SSP will index to the next speaker until all distances are calibrated.
- Check the distance settings for each speaker in the Distance setup page.



Notes:

- The adjustment range is from 0ft (0m) to 61ft (21m)
- The maximum difference in distance from speakers to the listening position is 15 ft (5 m). A rounding of ‘1 ft = 1 ms’ and ‘3ft = 1m’ is used. Refer to ‘Display setup’, ‘Distance units’ to change setup from feet to meters.
- Distance values that are ‘Too distant’ are highlighted in a different colour (usually red). The highlighted speaker should be moved closer or the nearest speaker should be move further away.



Manual Level and Distance Calibration

Level Setup

Output channel levels are adjusted in Level setup. Speaker levels can be measured using a SPL meter.

LEVEL SETUP	
> Left	0.0dB
Center	0.0dB
Right	0.0dB
Right surround	0.0dB
Right back	0.0dB
Left back	0.0dB
Left surround	0.0dB
Subwoofer	0.0dB
EXIT	

Calibrate channel levels:

- Select “Speaker Setup / Level Setup” menu.
- Use the UP or DOWN keys to highlight the speaker/channel level you want to adjust.
- Press the TEST key to generate the calibration tone
- Use the LEFT or RIGHT keys to adjust the level to your desired setting (75dB) on the SPL meter.
- Repeat this process until you are happy with all level settings.
- Use the UP or DOWN keys to highlight EXIT and press ENT to return to the ‘Speaker setup’ menu
- The test tone can be switched off by pressing the TEST key

Note: The adjustment range is from -15.0 dB to +15.0 dB with 0.5 dB steps.

Distance setup

Speaker distances must be correctly setup to ensure sound arrives simultaneously to the listening position.

DISTANCE SETUP	
> Left	6ft
Center	5ft
Right	6ft
Right surround	3ft
Right back	0ft
Left back	0ft
Left surround	3ft
Subwoofer	0ft
EXIT	

Setup Speaker Distances:

- Select “Speaker Setup / Distance setup” menu
- Use the UP or DOWN keys to highlight the speaker/channel you want to adjust.
- Use the LEFT or RIGHT keys to adjust the distance to the correct setting.
- Repeat this process until you are happy with all distance settings.
- Use the UP or DOWN keys to highlight EXIT and press ENT to return to the ‘Speaker setup’ menu.