

DSP640.2 IN-WALL DIGITAL ACTIVE LOUDSPEAKER USER GUIDE

MERIDIAN

Important safety instructions

- Read the instructions.
- Keep these instructions.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install only in accordance with the manufacturer's instructions.
- Refer all servicing to approved service personnel.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

This apparatus has been designed with Class 1 construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding pin).

This apparatus uses a single-pole power switch. As a result it is not isolated from AC mains power when switched off at the rear panel. The apparatus may be isolated from mains power either by unplugging the power connector from the rear of the unit, or by unplugging the connector at the opposing end of the power cord or cable from its supply outlet. As a result, either or both of these connectors should remain accessible.

Safety warnings



WARNING!
RISK OF ELECTRIC SHOCK – DO NOT OPEN
ATTENTION!
NE PAS OUVRIR – RISQUE DE DÉCHARGE ÉLECTRIQUE



Caution: to reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Climate

The equipment has been designed for use in moderate climates and in domestic situations.



Only use at an altitude not exceeding 2000m.

Safety warnings

- Do not expose the unit to dripping or splashing.
- Do not place any object filled with liquid, such as a vase, on the unit.
- Do not place naked flame sources, such as lighted candles, on the unit.

To avoid overheating

- Do not position the product in direct sunlight.
- Do not position the product near heat sources, such as a radiator.
- Do not position the product on a soft surface such as a carpet.
- Leave at least 10cm around the product to ensure sufficient ventilation.

To avoid interference

- Do not position the unit near strong electrical or magnetic radiation, such as near a power amplifier.

Radio interference

FCC Warning: This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in Subpart J, Part 15 of FCC rules for a Class B computing device. These limits are intended to provide reasonable protection against such interference in home installations.

CE

EEC: This product has been designed and type-tested to comply with the limits set out in EN55032:2015 and EN55024:2010 + A1:2015.

Copyright and acknowledgements

Sales and service in the UK

Meridian Audio Ltd, Latham Road, Huntingdon,
Cambridgeshire, PE29 6YE, England.

Tel (01480) 445678
Email info@meridian.co.uk

Designed and manufactured in the UK

Meridian Audio Ltd, Latham Road, Huntingdon,
Cambridgeshire, PE29 6YE, England.

Meridian Audio reserves the right to make changes and improvements to any of the products described in this document without prior notice.

Copyright © 2019 Meridian Audio Ltd.

Part no: P88468/2

Visit us on the Web

www.meridian-audio.com

Product registration

Register your DSP640.2 In-Wall Digital Active Loudspeaker at:

meridian-audio.com/register



Contents

Introduction	1
Specifications	3
Installing the DSP640.2	4
Front and back panel	9
Setting up the DSP640.2	11
Configuring the loudspeaker using the IR eye	13
RS232 control and configuration	14
Applications	16
RS232 commands	24
Index	31

Introduction

The DSP640.2 is perfect for delivering high-quality music discreetly in any living or cinema room, whether used in stereo systems, full surround sound set-ups, soundbar applications, or other single-loudspeaker installations.

It features two 140mm long throw bass drivers and two 85mm wide-range drivers for full-frequency response, each driven by an all-new bi-amp design featuring two 100W power amplifiers, making it capable of delivering full range sound at in excess of 105dB at 4m, with bass extension down to 35Hz.

Acoustics

The DSP640.2 has been designed for maximum dispersion and wide listening area plus minimum unwanted diffraction.

Each drive unit is powered individually by two dedicated 100W Class-D amplifiers with feedback on the output stage. This lowers the output impedance and reduces distortion and noise to levels experienced by only the best Class-AB amplifiers.

L+R mode allows a single loudspeaker to be used on its own while still reproducing all the audio present in a stereo recording, making the DSP640.2 a great choice for use as a soundbar below a TV screen, especially when combined with the Centre Elevation feature.

On-board DSP

On-board DSP provides thermal and dynamic bass protection while retaining very accurate transients, ensuring that when the loudspeaker is played at high levels – even over prolonged periods of time – it always delivers a clean, detailed and accurate sound.

Centre Elevation

Meridian's Centre Elevation technology, based on psychoacoustic research, raises the perceived image location from an under-screen loudspeaker so that it appears to come from the centre of the screen.

Enhanced Bass Alignment (EBA)

Meridian's innovative Enhanced Bass Alignment (EBA) uses two different technologies to time-align high, mid, and upper bass frequencies with the low bass, resulting in audibly improved bass transients and added life and clarity.

Enhancement technologies

Meridian's unique suite of proprietary technologies includes FIFO buffering, DSP upsampling, apodising filters, and MHR (Meridian High Resolution) to get the very best performance from all digital sources.

Construction

The DSP640.2 is designed to have an elegant profile, with only 100mm installation depth.

It is made up of a narrow, self-contained, all-metal enclosure with a metal mounting frame. Its purpose-built rough-in wall-box is available separately. The rough-in box is first fitted to the wall, the frame is mounted to it, and the loudspeaker enclosure is then bolted to the frame.

The rough-in box and frame can be adjusted for various wall materials and depths. The frame is designed for mounting into new-build partition and stud style walls or for retrofitting into stud or brick/stone-built walls.

A male-to-female IEC mains lead is supplied with the loudspeaker in order to connect it to the rough-in box, which is wired to power.

The paintable, perforated steel grille supplied with the loudspeaker can be fitted where required. The grille is held in place by powerful rubber-coated magnets which are attached to the aluminium extrusion that forms the front panel of the loudspeaker enclosure.

Controlling the loudspeaker

The loudspeaker can be controlled in three ways:

- In most installations, the loudspeaker will be controlled by another Meridian product within the system.
- Alternatively, the loudspeaker features an infra-red receiver which allows it to be controlled using a Meridian System Remote.
- Thirdly, the loudspeaker can be controlled using RS232 commands.

Specifications

Audio input

- 1 x Meridian SpeakerLink connector (RJ45).

Audio output

- 1 x Meridian SpeakerLink connector (RJ45).

Drivers

- Wide-range: 2 x 85mm.
- Bass: 2 x 140mm.

Amplifiers

- Wide-range drivers (each): 2 x Class-D amplifiers bridged for 100W into 8Ω.
- Bass drivers (each): 2 x Class-D amplifiers bridged for 100W into 8Ω.

Performance

- Peak SPL: 117dB @ 1m.
- Bass extension: 35Hz.

Front panel

- Switch selects **Right**, **L+R**, or **Left or Centre**.
- IR window.
- LED indicators show power status and configuration settings.

Physical

- Dimensions: 1230mm* x 203mm x 102mm (48.5"* x 8.0" x 4.0") (H x W x D).
- Weight: 15kg (33lb).
- Grille dimensions: 1251.3mm x 222.5mm x 4mm (49.25" x 8.73" x 0.16") (H x W x D).

* Excluding frame and cable feed channel.

Power

- IEC mains lead supplied to connect loudspeaker enclosure to rough-in box.
- 500W max.
- 100-240V AC, 50/60 Hz.

Installing the DSP640.2

The loudspeaker is designed to be fitted in a Meridian wall box type RF600. If necessary, refer to the *RF600 Wall Box Installation Instructions*:

meridian-audio.com/RF600-installation

Contents

Each DSP640.2 loudspeaker is supplied with the following components:

- Mounting frame.
- Mains cable.
- M5 x 25mm button-head clamping screws 12 pieces.
- M5 x 10mm button-head lock screws 8 pieces.
- M5 x 20mm guide-in screws (with unthreaded tips) 12 pieces.
- Grille.
- Grab handle.
- M3 Allen key.
- Grille extractor tools – 2 pieces.

The mounting frame is fitted to the wall box prior to fitting the loudspeaker.

The grab handle can be used to help with lifting the loudspeaker into position.

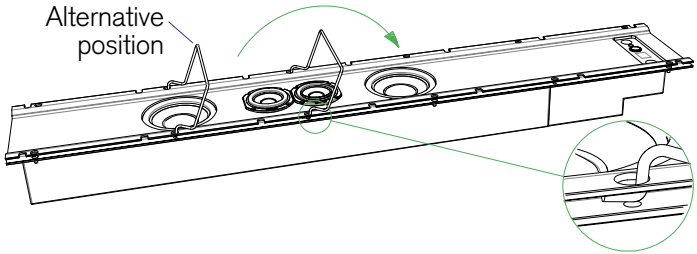
1. Prepare for installation

- Remove the mounting frame; it is packed underneath the loudspeaker within the packing carton.
- Remove the grab handle; it is packed in one of the foam packing pieces within the carton.

2. Fit the grab handle

- Insert the grab handle into the available holes either side of the tweeter (see illustration below).
- Rotate it so it locks into position.

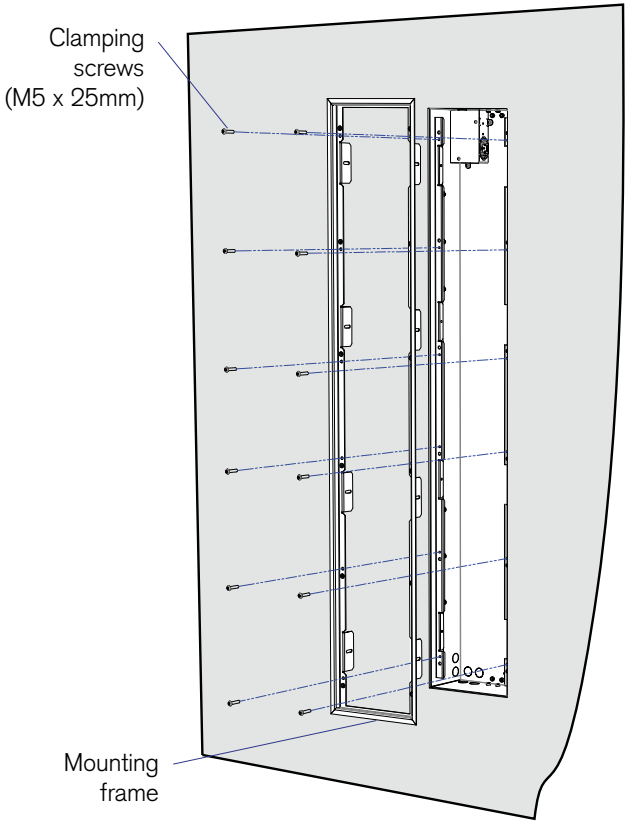
Note: the grab handle is not suitable to use when installing the loudspeaker horizontally.



3. Fit the mounting frame

- Slide the mounting frame into the wall box.
- Clamp the frame to the wall with the M5 x 25mm button-head clamping screws (12 pieces).

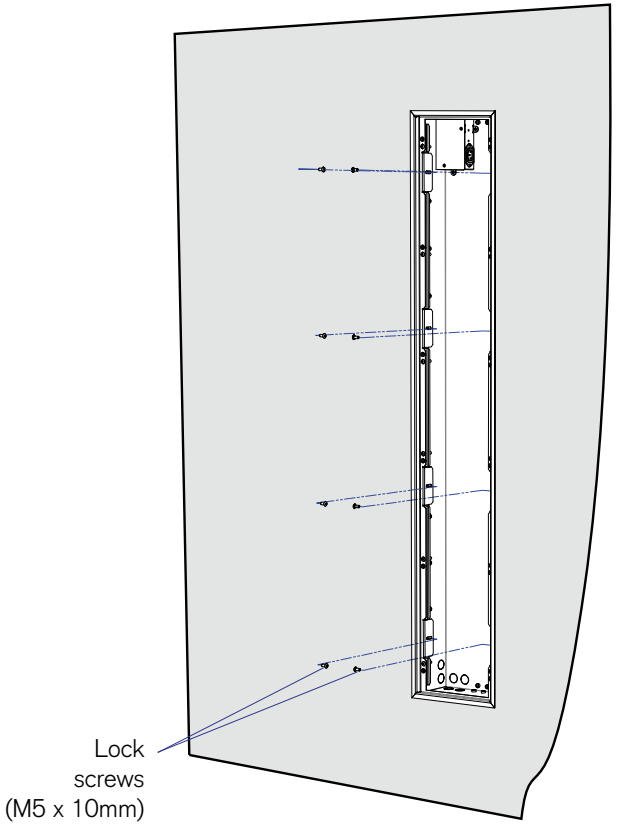
Tighten just enough to clamp the frame to the wall. Do not overtighten as this may distort the frame.



4. Lock the frame into place

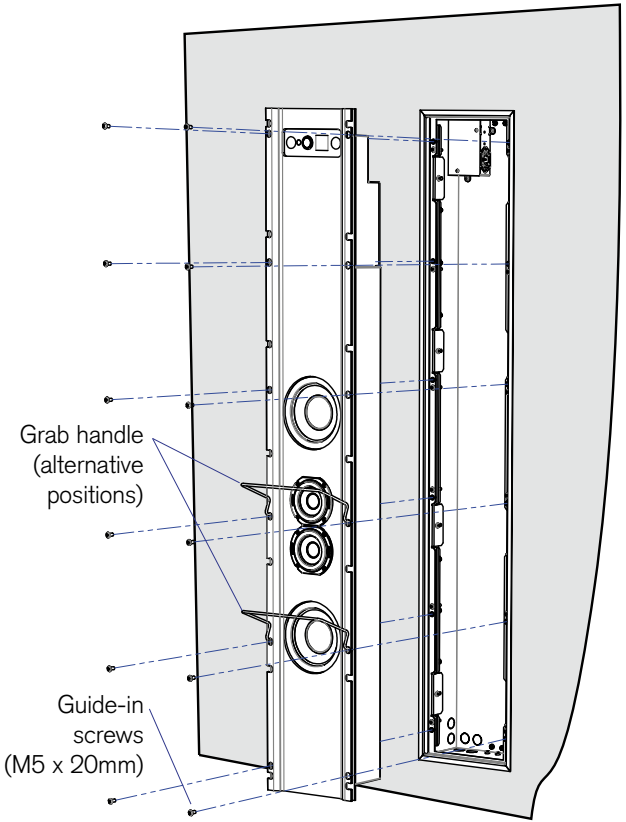
Once the frame is tight against the wall:

- Lock into place with M5 x 10mm button-head lock screws (8 pieces).
- Lock tight.



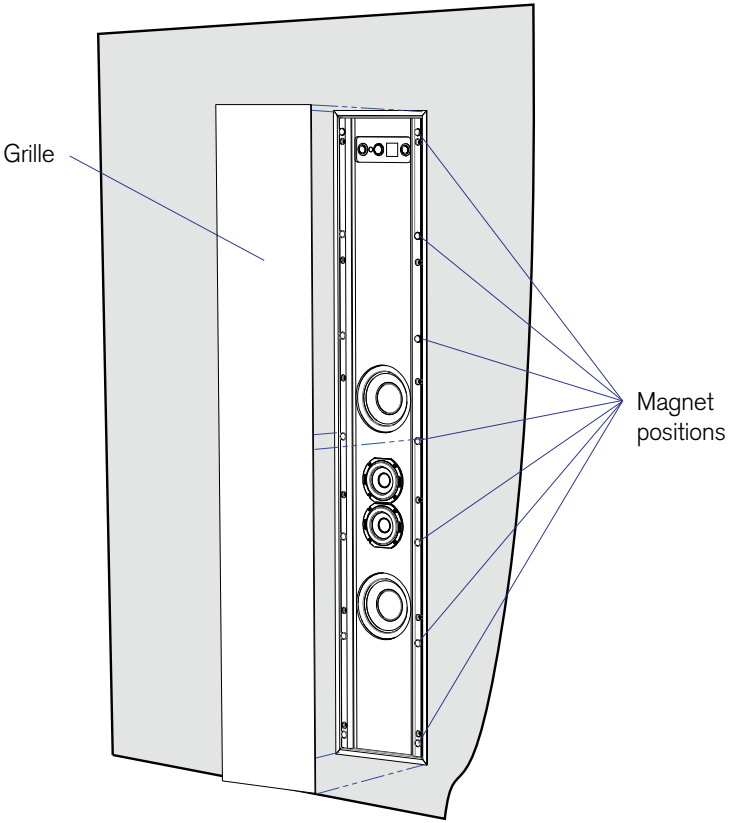
5. Fit the loudspeaker

- Using the grab handle, sit the loudspeaker on the lower edge of the wall box.
- Plug in the RJ45 cable(s) and AC supply.
- With the aid of the grab handle, slide the loudspeaker into position, inserting the top of the loudspeaker into the wall box first.
- Fix with M5 x 20mm guide-in screws (12 pieces).
- Remove the grab handle to fit the last pair of screws. This is no longer required.



6. Fit the grille

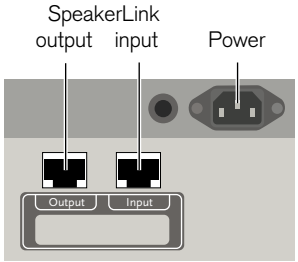
- Locate the lower edge of the grille at the bottom edge of the mounting frame for alignment.
- Lay the grille gently down onto the magnets, which will hold it in place.



Front and back panel

Connections

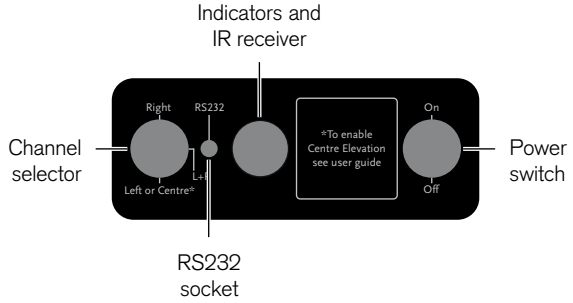
The following diagram gives details of the connections on the back of the loudspeaker:



Use this connection	To connect to this
SpeakerLink input	The SpeakerLink output of a Meridian controller or another loudspeaker when connecting in a daisy-chain.
SpeakerLink output	The SpeakerLink input of another loudspeaker when connecting in a daisy-chain.
Power	The RF600 wall box power output using the supplied plug-in mains cable.

Front panel

The following diagram gives details of the front panel:



Item	Description
Channel selector	Specifies the loudspeaker's role in the system. See *Setting up the DSP640.2 In-Wall Digital Active Loudspeaker*, page 11.
RS232 socket	Allows you to configure the loudspeaker. See *RS232 via the front-panel socket*, page 15.
Power switch	Controls the mains supply to the loudspeaker.

Status indicators

Status	Description
Steady blue	Loudspeaker in standby.
Steady white	Loudspeaker operating.

For an explanation of the configuration status indicators see *Configuring the loudspeaker using the IR eye*, page 13.

Setting up the DSP640.2

This section explains how to set up the loudspeaker in each of the typical applications.

Using the loudspeaker on the left of the system

- Set the channel selector switch to **Left or Centre**.

In a multichannel system this applies to all loudspeakers on the left-hand side of the room

Using the loudspeaker on the right of the system

- Set the channel selector switch to **Right**.

In a multichannel system this applies to all loudspeakers on the right-hand side of the room

Using a single loudspeaker individually with a TV

- Set the channel selector switch to **L+R**.

If the loudspeaker is located below the display screen Centre Elevation can be used to raise the sound image up to the screen.

- Choose between **Off** (lowest), **Minimum**, **Medium**, or **Maximum** (highest).

The ideal setting will depend on the layout of the loudspeaker and screen.

When the channel selector switch set to **L+R** Centre Elevation can be adjusted via RS232; see *RS232 control and configuration*, page 14. The setting will be retained even if the loudspeaker is powered off.

Centre Elevation is only appropriate for loudspeakers located below the display screen, or the mid-height point of an acoustically transparent screen. It may be of limited benefit if the distance between the loudspeaker and the screen is small relative to the distance between the screen and the listening position.

Using the loudspeaker to play a mix of left and right audio in other situations

- Set the channel selector switch to **L+R**.

This will play a balanced mix of left and right audio, allowing a single loudspeaker to reproduce all the audio present in a stereo recording. It also provides a useful option for systems using multiple speakers where the listening area does not have clearly-defined left and right loudspeaker positions.

Using the loudspeaker as a centre channel

- Set the channel selector switch to **Left or Centre**.

If the loudspeaker is below the display screen Centre Elevation can be used to raise the sound image up to the screen.

- Choose between **Off** (lowest), **Minimum**, **Medium**, or **Maximum** (highest).

The ideal setting will depend on the layout of the loudspeaker and screen.

As well as improving the sense of dialogue coming from centre stage, Centre Elevation can enhance the integration of sounds that pan from left and right in a multichannel system.

When set to **Left or Centre**, the loudspeaker needs to have **Centre mode** activated in order to make Centre Elevation available. This can be done using a Meridian System Remote as described in *Configuring the loudspeaker using the IR eye*, page 13, or via RS232 as described in *RS232 control and configuration*, page 14.

In **Centre mode**:

If the system features a suitably-equipped Meridian controller product, Centre Elevation can be adjusted via the menu system of the controller product. Check the user guide of the controller product to see whether it supports the Centre Elevation menu and how to adjust it.

Regardless of the other equipment in the system, Centre Elevation can be adjusted via RS232. The setting will be retained even if the loudspeaker is powered off, so the optimal setting can be chosen at the time of installation as a one-off operation.

Centre Elevation is only appropriate for loudspeakers located below the display screen, or the mid-height point of an acoustically transparent screen. It may be of limited benefit if the distance between the loudspeaker and the screen is small relative to the distance between the screen and the listening position.

Configuring the loudspeaker using the IR eye

Some settings can be changed by sending commands from a Meridian System Remote (not supplied) directed at the IR eye while powering-up the loudspeaker. The status of the setting is indicated by flashing indicators behind the lens of the IR eye immediately after the operation.

Centre mode

Centre mode can be toggled off and on by holding down the Left-cursor key (<) while powering-up the loudspeaker.

Status	Description
White indicator flashes four times	Centre-mode activated.
Blue indicator flashes four times	Centre-mode deactivated.

IR eye

The IR eye on the front-panel of the loudspeaker can be enabled or disabled by holding down the **Next** and **Previous** keys respectively while powering-up the loudspeaker.

Key and status	Description
Next key White indicator flashes twice	IR eye on.
Previous key Blue indicator flashes twice	IR eye off (default).

Factory reset

A factory reset can be performed by holding down the **Stop** key while powering-up the loudspeaker.

Status	Description
White indicator flashes three times	The loudspeaker has been reset.

RS232 control and configuration

For the full list of RS232 commands for DSP loudspeakers see RS232 commands, page 24. This covers non-volatile settings relating to installation options as well as standard control commands to be used by third-party control systems.

Centre mode and Centre Elevation

The commands used for Centre mode and Centre Elevation are detailed here as these features most often generate the need to use RS232 with the loudspeaker.

Centre mode

The RS232 commands related to Centre mode are as follows:

Command	What it does
CmON	Activates Centre mode.
CmOFF	Deactivates Centre mode.
Cm	Returns the current status of Centre mode.

When the channel selector switch is set to **L+R** Centre mode is activated by default; otherwise it is deactivated by default.

Centre Elevation

The RS232 commands to adjust Centre Elevation are as follows

Command	What it does
CESL	Enables control of Centre Elevation by commands over SpeakerLink.*
CEOFF	Switches Centre Elevation off.*
CEMIN	Sets Centre Elevation to Minimum.
CEMED	Sets Centre Elevation to Medium.
CEMAX	Sets Centre Elevation to Maximum.

* By default, the loudspeaker is set to CESL and Centre Elevation will remain set to off until it is changed by a valid command over SpeakerLink.

RS232 connection options

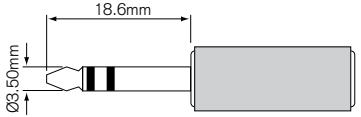
The loudspeaker can receive RS232 commands via the socket on its front-panel or via the SpeakerLink input socket on the back of the loudspeaker. Their respective locations make the two connections suitable for particular use-cases.

RS232 via the front-panel socket

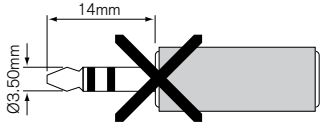
The front-panel RS232 allows you to configure the loudspeaker to suit its role in the system, or perform firmware updates.

A cable suitable for connecting to the front-panel RS232 socket, terminated in a female DB9 plug, is available from authorised Meridian dealers: Meridian part number: PA10824

The socket accepts the longer version of the three-way, 3.5mm ($\frac{1}{8}$ inch) minijack plug, eg Schurter part no. 4802.1300:



The standard minijack plug commonly used on headphones and ear-buds with a shorter 14mm plug cannot be used:



RS232 via the SpeakerLink input

If the loudspeaker is installed behind a projection screen or under a fabric wall-covering, the front-panel RS232 socket may be inaccessible. In this case the SpeakerLink input cable, which also carries RS232 connections, can be used to configure the loudspeaker.

- Temporarily disconnect the SpeakerLink cable from the product feeding the loudspeaker.
- Connect the RJ45 plug into an RJ45 Inline Coupler to provide an RJ45 socket.
- Connect the RJ45 socket to an RJ45 to RS232 cable.

An RJ45 to RS232 cable, terminated in a female DB9 plug, is available from authorised Meridian dealers: Meridian part number SK1622.

Where loudspeakers are daisy-chained, access to the SpeakerLink input of the downstream loudspeakers can be provided by routing all SpeakerLink feeds through RJ45 couplers located in the rack.

Connections

The two cables use the following connections for RS232:

Function	Female DB9	Minijack	RJ45
RS232 Tx.	3	Tip	6
RS232 Rx.	2	Ring	3
Ground	5	Shield	5

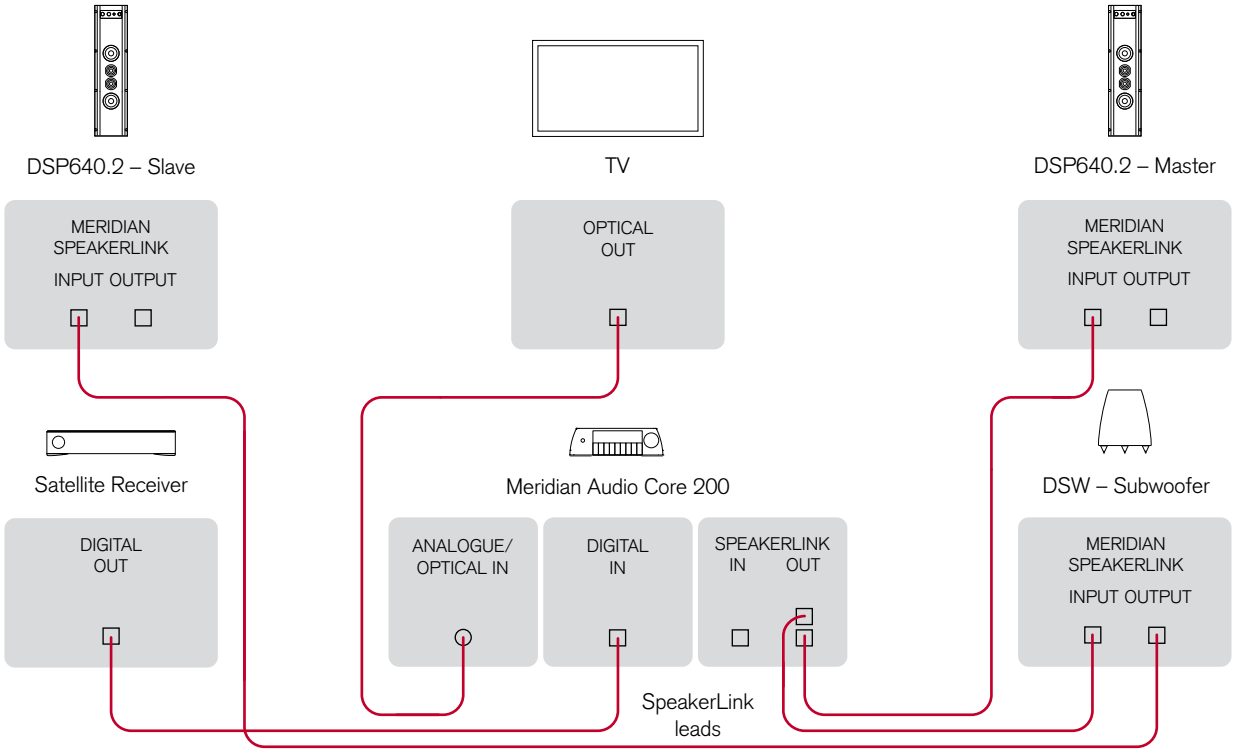
Applications

To connect an Audio Core 200 and DSW in a 2.1 system

The DSP640.2 loudspeakers are ideal for a compact home entertainment system based on a Meridian Audio Core 200.

- Connect analogue and digital sources, such as a TV and satellite receiver, to the appropriate inputs on the AC200.
- Connect the lower SpeakerLink output on the Audio Core 200 to the SpeakerLink input of the Master DSP640.2 loudspeaker, using a Meridian SpeakerLink lead.
- Connect the upper SpeakerLink output on the Audio Core 200 to the SpeakerLink input of the DSW subwoofer, using a Meridian SpeakerLink lead.
- Connect the SpeakerLink output from the DSW subwoofer to the Slave DSP640.2 loudspeaker, using a Meridian SpeakerLink lead.
- Set the Channel selector to the **Left or Centre** position on the left DSP640.2 loudspeaker, to the **Right** position on the right DSP640.2 loudspeaker, and to the **1+2** position on the DSW subwoofer.

The subwoofer level and crossover are adjustable from the AC200 menus.

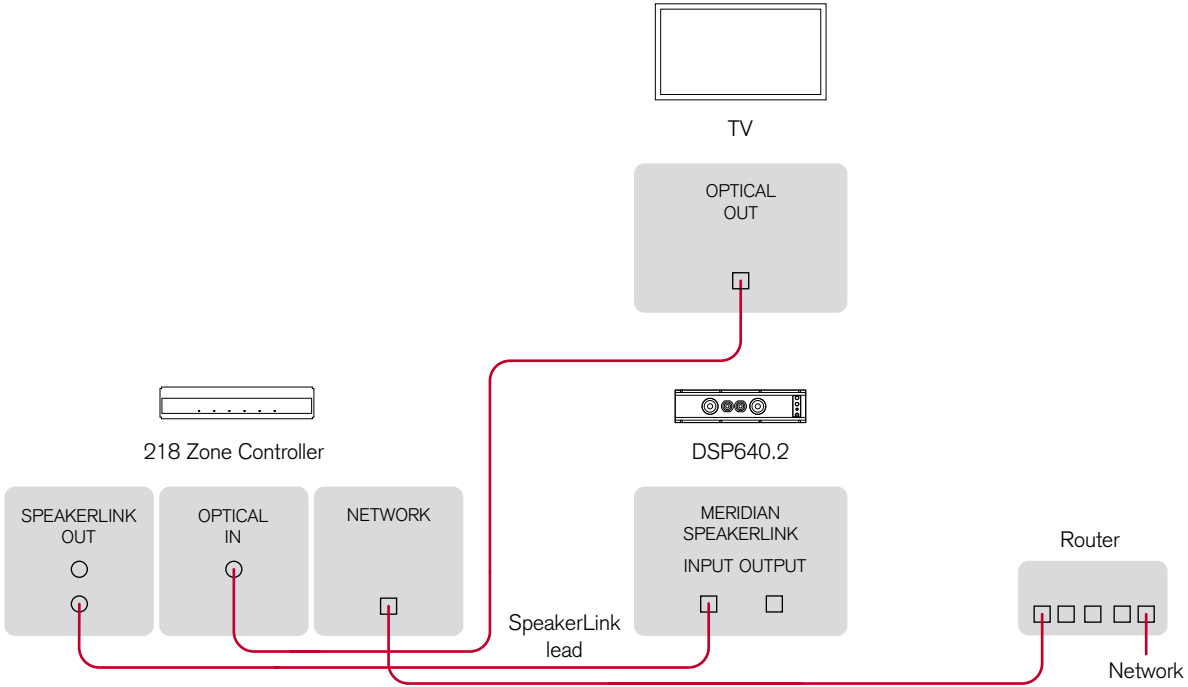

DSP640.2 – Slave
TV
DSP640.2 – Master
MERIDIAN SPEAKERLINK
INPUT OUTPUT
OPTICAL OUT
MERIDIAN SPEAKERLINK
INPUT OUTPUT
Satellite Receiver
Meridian Audio Core 200
DSW – Subwoofer
DIGITAL OUT
ANALOGUE/ OPTICAL IN
DIGITAL IN
SPEAKERLINK IN OUT
MERIDIAN SPEAKERLINK
INPUT OUTPUT
SpeakerLink leads

To connect a 218 to a single loudspeaker

The DSP640.2 loudspeaker can be used individually with a TV, or in another single loudspeaker system, controlled by a 218 Zone Controller.

- Connect the lower SpeakerLink output (labelled Master) on the 218 Zone Controller to the DSP640.2, using a Meridian SpeakerLink lead.
- Set the Channel selector to the **L+R** position on the DSP640.2.
- Connect the Network socket from the 218 Zone Controller to a LAN network connection on your Router, using CAT5 cable.
- Connect the optical output of the TV to the optical input of the 218.

Audio can be streamed to the system and controlled via the Network socket on the 218.

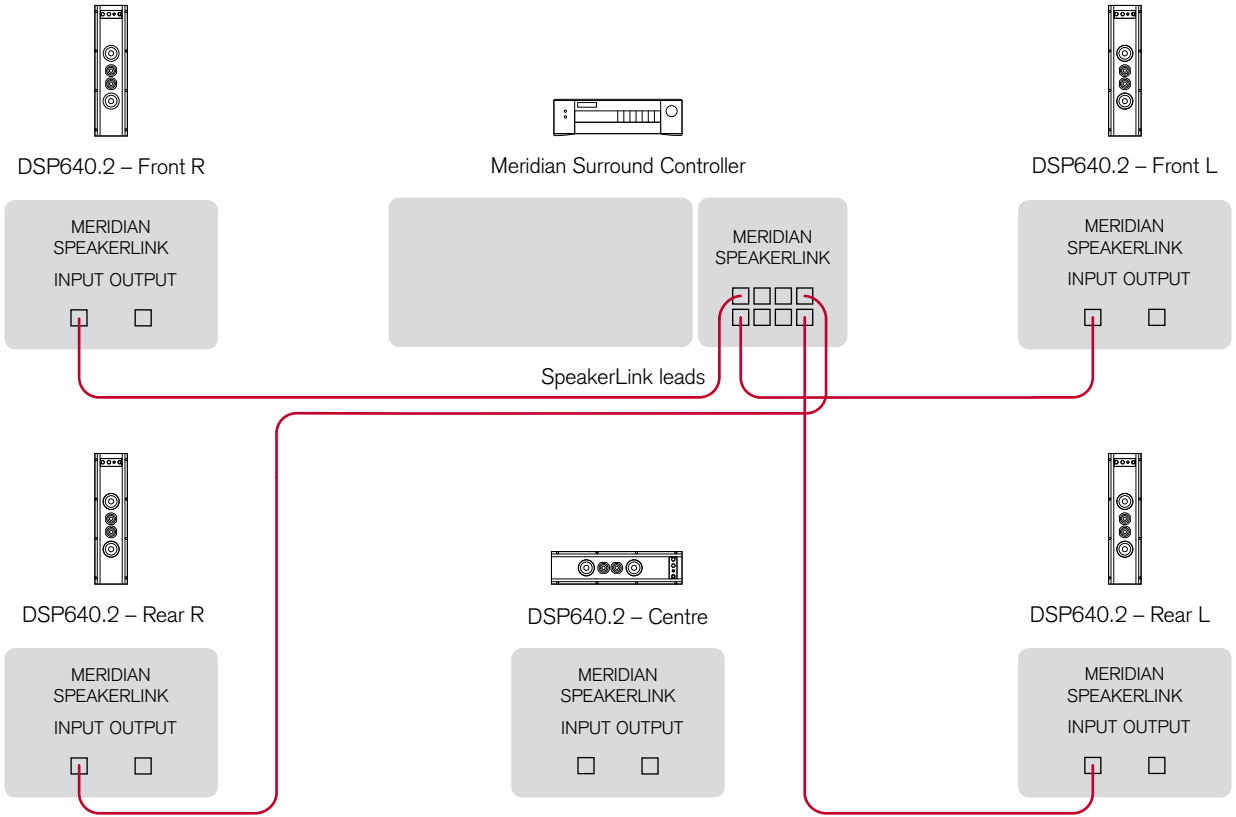

TV
OPTICAL
OUT
218 Zone Controller
DSP640.2
SPEAKERLINK
OUT
OPTICAL
IN
NETWORK
MERIDIAN
SPEAKERLINK
INPUT OUTPUT
Router
SpeakerLink
lead
Network

To use DSP640.2 loudspeakers in a Meridian Digital Theatre

DSP640.2 loudspeakers are ideal as the front, rear, and centre loudspeakers in a Meridian Digital Theatre, in conjunction with a Meridian Digital Surround Controller such as the G65. The following diagram shows how to connect the loudspeakers using “home run” wiring.

- Connect the L+R SpeakerLink output on the lower row (labelled Master) of the G65 to the front left DSP640.2 loudspeaker, using a Meridian SpeakerLink lead.
- Connect the appropriate SpeakerLink outputs on the G65 to each of the remaining loudspeakers, using Meridian SpeakerLink leads.
- Make sure the Channel selector on each DSP640.2 is set to the **Left or Centre** position on the left and centre loudspeakers and to the **Right** position on the right loudspeaker.

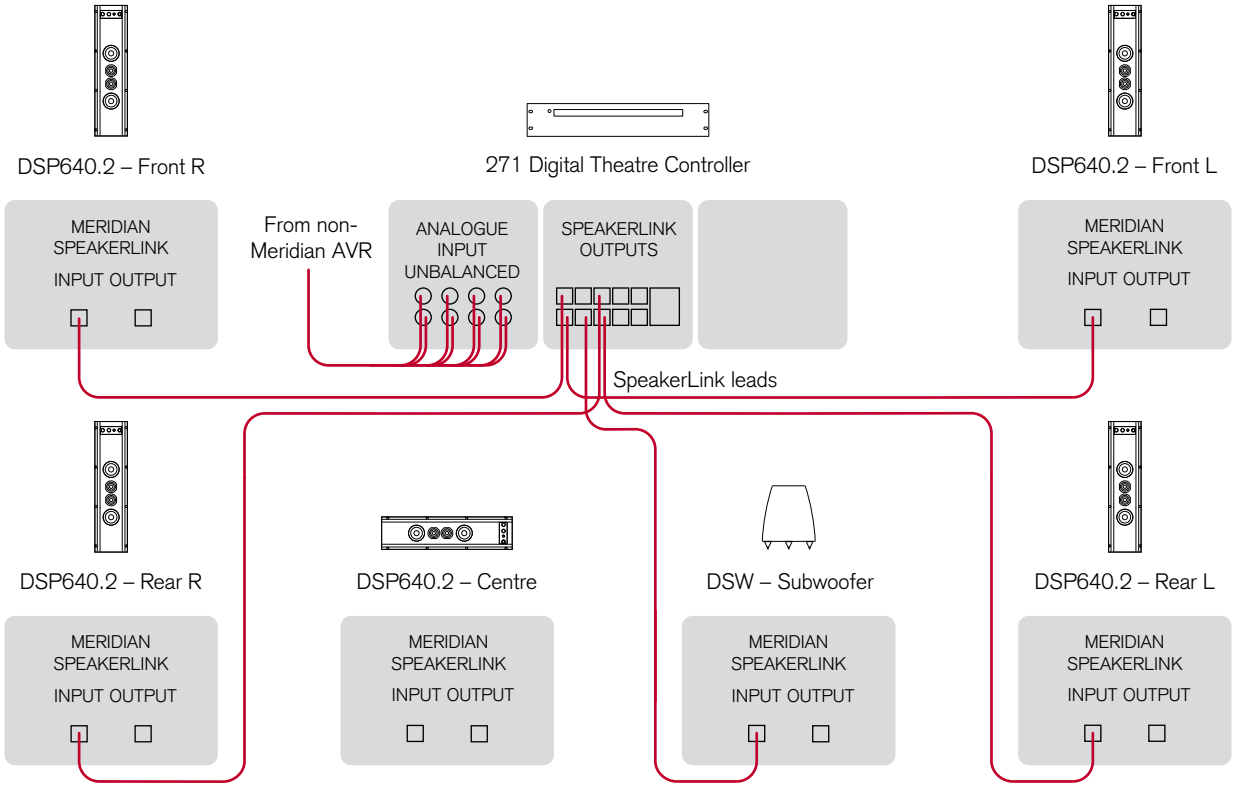
Alternatively you can connect the loudspeakers using “daisy chain” wiring: connect the front and rear L loudspeakers to the G65, and then link each pair of loudspeakers together by connecting the output from the L loudspeaker to the input of the R loudspeaker.


DSP640.2 – Front R
Meridian Surround Controller
DSP640.2 – Front L
MERIDIAN SPEAKERLINK
INPUT OUTPUT
MERIDIAN SPEAKERLINK
MERIDIAN SPEAKERLINK
INPUT OUTPUT
SpeakerLink leads
DSP640.2 – Rear R
DSP640.2 – Centre
DSP640.2 – Rear L
MERIDIAN SPEAKERLINK
INPUT OUTPUT
MERIDIAN SPEAKERLINK
INPUT OUTPUT
MERIDIAN SPEAKERLINK
INPUT OUTPUT

To use DSP640.2 loudspeakers with a Meridian 271 and a non-Meridian AVR

The Meridian 271 Digital Theatre Controller acts as an interface between a non-Meridian surround-sound processor (AVR) and Meridian DSP loudspeakers. This is a 5.1 system based on an AVR with unbalanced analogue outputs. The same connection method can be used for systems with more channels, such as those which support immersive audio formats.

- Set the channel selector switch on each of the DSP640.2 loudspeakers according to its role within the system.
- Connect the DSP640.2 loudspeakers to the SpeakerLink outputs on the 271 as appropriate for their position in the system. By convention, loudspeakers on the left-hand side of a Meridian system and the centre-channel loudspeaker use odd channel numbers (1, 3, 5, etc.) and loudspeakers on the right-hand side of the system use even numbers (2, 4, 6, etc.)
- Connect the unbalanced analogue outputs from the AVR to the unbalanced analogue inputs on the 271, using RCA phono cables.


DSP640.2 – Front R
271 Digital Theatre Controller
DSP640.2 – Front L
MERIDIAN SPEAKERLINK
INPUT OUTPUT
From non-Meridian AVR
ANALOGUE INPUT UNBALANCED
SPEAKERLINK OUTPUTS
MERIDIAN SPEAKERLINK
INPUT OUTPUT
SpeakerLink leads
DSP640.2 – Rear R
DSP640.2 – Centre
DSW – Subwoofer
DSP640.2 – Rear L
MERIDIAN SPEAKERLINK
INPUT OUTPUT

RS232 commands

RS232 is one of several interfaces carried by the Meridian Speakerlink RJ45/Cat5 connection. The Meridian Distributor and the Meridian AC12 make this interface available on a standard RS232 connector.

DSP520 and DSP640 loudspeakers had an alternative RS232 connection added to their front-panel with a hardware change late in 2018. Units with this second connection are designated by serial number 300000 or later.

Products and versions

This chapter applies to these products and firmware versions:

DSP3200:	1.2.0 or higher
DSP3300:	1.2.0 or higher
DSP320:	All versions
DSP520:	1.3.6 or higher
DSP640:	1.3.6 or higher
M6:	1.1.0 or higher
DSW:	1.1.0 or higher

Port settings

9600 Baud, 8 data bits, 1 stop bit, no parity, no flow control

Command format

RS232 commands consist of ASCII characters which are case sensitive. Some commands require parameters, so these are followed by additional characters. All commands are terminated with a carriage return. For example:

To change the volume level to 45, the command is: VN45

This will cause the loudspeaker to change its volume and respond with: Volume 45

Non-volatile configuration and reset

Some of the RS232 commands described in this document produce non-volatile (lasting) configuration changes in the DSP loudspeaker. These commands should be used carefully because they may affect the sound and operation of the loudspeaker without giving any obvious external indications.

An RS232 command is provided to reset the loudspeaker to its default configuration. For loudspeakers with IR receivers such as DSP520 and DSP640, the loudspeaker may also be reset by powering-up with the stop key pressed on the MSR+ remote control. This is confirmed by three flashes from the white lights on the loudspeaker.

Loudspeaker control commands

These commands are used for everyday control of a pair loudspeakers such as by a control system connected to the master loudspeaker through a Meridian Distributor.

Command Type	Code	Parameters	Meaning	Function	Example Response
Source Selection	CD	None, sb [1]	Select source	Select source 0	CD 65
	RD	None, sb [1]	Select source	Select source 1	Radio 65
	LP, AX or MS	None, sb [1]	Select source	Select source 2	SLS 65
	TV	None, sb [1]	Select source	Select source 3	TV 65
	TA, T1 or IP	None, sb [1]	Select source	Select source 4	iPod 65
	T2 or SA	None, sb [1]	Select source	Select source 5	SAT 65
	CR or DC	None, sb [1]	Select source	Select source 6	Disc 65
	CB	None, sb [1]	Select source	Select source 7	Cable 65
	TX or DV	None, sb [1]	Select source	Select source 8	DVD 65
	V1 or US	None, sb [1]	Select source	Select source 9	USB 65
	V2 or MX	None, sb [1]	Select source	Select source 10	Mixer 65
	LD or GA	None, sb [1]	Select source	Select source 11	Game 65
	SB	None	Standby	Standby	.
	MU	None	Mute	Mute	Mute 65

Command Type	Code	Parameters	Meaning	Function	Example Response
Volume	VN	##	Volume number	Go to volume number	Volume 65
	VP	None	Volume Plus	Increase volume	Volume 66
	VM	None	Volume Minus	Decrease volume	Volume 64
Audio Effects	TN	±##.#	Treble Number	Go to Treble number	Treble + 6.0
	BN	±##.#	Bass number	Go to bass number	Bass + 5.0
	LN	±##	Left number	Go to balance setting	Left 3
	RN	±##	Right number	Go to balance setting	Right 6
	P+	None	Phase +	Phase +	Phase +
	P-	None	Phase -	Phase -	Phase -
Display	DI	ON, OFF	Display	Light on or off	Light On

Source control commands

These commands allow control of a Meridian source connected to the master loudspeaker. No response is given on RS232.

Code	Meaning/Function
PL	Play
ST	Stop
PS	Pause
RP	Repeat
NE	Next
PR	Previous
FF	Fast Forward
FB	Fast Back
MP	Menu up
MM	Menu down
ML	Menu left
MR	Menu right
N0 - N9	Number keys
SR	Store
CL	Clear

Configuration

These commands affect only the connected loudspeaker. They configure features of the loudspeaker that would otherwise be inaccessible without a SpeakerLink capable controller.

The settings made are non-volatile (ie they remain when the loudspeaker is powered down). These settings can override commands from a SpeakerLink controller, so they should be used with caution. To restore SpeakerLink control, choose the SL parameter.

Command Type	Code	Parameters	Meaning	Example Response
IR receiver [2]	IR	ON	Turns on IR receiver eye	IR on
		OFF	Turns off IR receiver eye	IR off
Speaker position	BO	SL	Boundary EQ controlled by Speakerlink	NV Boundary Speakerlink
		FR	Free-space equalization [3]	NV Boundary Free
		WA	Wall equalization	NV Boundary Wall
		SH	Shelf equalization	NV Boundary Shelf
		CO	Corner equalization	NV Boundary Corner
Subwoofer	SW	SL	Subwoofer Controlled By Speakerlink	NV Subwoofer Speakerlink
		OFF	Subwoofer Off	NV Subwoofer Off
		1	Subwoofer Crossover 1	NV Subwoofer Sub 1
		2	Subwoofer Crossover 1	NV Subwoofer Sub 2
		WI	Subwoofer Wideband	NV Subwoofer Speakerlink
	SG	+/-##	Subwoofer Gain [4]	NV Sub Gain 12

Command Type	Code	Parameters	Meaning	Example Response
Audio Effects	EA	SL, ON, OFF	Enhanced Bass Alignment (EBA)	NV EBA On
	EC	SL, OFF, MIN, MED, MAX	Enhanced Boundary Control (EBC)	NV EBC Med
	RH	###	Room Height in cm for EBC [5]	NV EBA Room Height 210cm
	CE	SL, OFF, MIN, MED, MAX	Centre Elevation	NV Centre Elevation Min
	LO	SL, ON, OFF	Loudness	NV Loudness Speakerlink
	Cm [6]	ON, OFF	Centre mode	NV Left or Centre
	Mm	SL, MU, MO	Music/Movie Mode [7]	NV Music Mode
Status/Reset	NV	None	Non-volatile	A list of the non-volatile settings
		RS	Non-volatile Reset	Resets all non-volatile settings

Utility/diagnostic

Code	Meaning	Response
`IR2`	Infra-red receiver status	IR on/IR off
`Cm`	Centre mode status	A text description of the status
`ID`	Identity	A list of product name and versions
`!R`	Reset	Bye

Notes

1. When in standby, a source selection command may be followed by sb (e.g. `CDsb`). This allows e.g. a connected Distributor to change source, but the speakers will remain in standby.

2. Available only on Meridian DSP320, DSP520 and DSP640.

3. Free-space equalization is not available on in-wall loudspeakers.

4. The non-volatile subwoofer gain is only used when the non-volatile subwoofer setting is not SL. The range is -15 to +15 in 1dB steps.

5. The non-volatile room height is only used when the non-volatile EBC setting is not SL. The range is 150 to 400cm in 1cm steps.

6. Centre mode applies only to DSP640.2 and DSP640.2

7. Music/Movie mode applies only to the Meridian DSW.

Index

A

applications
  Audio Core 200 and DSW in a 2.1 system 16
  connecting a 218 to a single loudspeaker 18
  connecting to a Meridian 271 and a non-Meridian AVR 22
  Meridian Digital Theatre 20
AVR, connecting to 22

B

back panel 9
back panel connections 9
balanced outputs 9

C

Centre Elevation 11, 12, 14
  controlling via RS232 14
Centre elevation 1
Centre mode 12
  controlling via RS232 14
  turning on or off 13
channel selector 9
  L+R 11
  Left or Centre 11, 12
  Right 11
components 4
configuring using the IR eye 13
controlling the loudspeaker 2

E

Enhanced Bass Alignment (EBA) 1

F

factory reset 13
front panel 9

G

grab handle, fitting 4
grille, fitting 8

I

indicators 10
installation
  fitting the grab handle 4
  fitting the loudspeaker 7
  fitting the mounting frame 5
  fitting the scrim and grille 8
  locking the frame into place 6
  preparation 4
installing 4
IR eye 13
  enabling or disabling 13

M

Meridian 218, connecting to 18
Meridian 271, connecting to 22
Meridian Audio Core 200, connecting to 16
Meridian Digital Theatre 20
mix of left and right audio, playing 11
mounting frame, fitting 5

P

power input 9
power switch 9

R

registration iv
RS232 commands 24
  configuration 28
  loudspeaker control 25
  source control 27
  utility/diagnostic 30
RS232 connections 14
  via the front-panel socket 15
  via the SpeakerLink input 15
RS232 control and configuration 14
RS232 socket 9

S

safety warnings iii
scrim, fitting 8
setting up 11
  as a centre channel 12
  individually with a TV 11
  on the left of the system 11
  on the right of the system 11
  to play a mix of left and right audio 11
soundbar applications 1, 11, 18
SpeakerLink input 9
SpeakerLink output 9
specifications 3
status indicators 10

T

television, use with 11