MERIDIAN D6000 SETUP MANUAL

Boothroyd | Stuart Ltd.
13 Clifton Road
Huntingdon
Cambs. PE18 7EJ
England

Tel (0) 480 52144
Telex 32577 (MERIDN)
Fax (0) 480 459934

Author: Andrew M. Samalionis BEng(Hons)

CONTENTS

Appendices

1 Introduction

Congratulations on choosing D6000 Digital Active Loudspeakers.

We are confident that they will give a quality to your music that is unprecedented, and bring years of listening pleasure.

Because the D6000 is a sophisticated product you should read all the supplied documentation before fully installing the D6000, particularly if you intend to customise its functions.

We have supplied a 'Getting going' sheet for those of you who want to hear the D6000s now and maybe spend a little longer deciding on how best to set them up in your home.

D6000s can be adjusted in many ways, all of which are explained within this manual and the D6000 User manual.

If you have any queries regarding the D6000 remember that your *Meridian* dealer is selected for his expertise and you should refer to him in the first instance.

We have made this unique product as simple to use as possible so that it will bring you a new dimension of listening pleasure.

2 About this manual

This manual is intended for owners and users of D6000s. It provides all the information required to install, setup and program a pair of D6000s. This manual will guide you through the processes necessary to get a complete working system and give information on how to adjust the working system at a later date.

Although this manual is mainly useful up to the creation of a working system it may be necessary for re-programming at a later date and therefore should always be stored safely.

2.1 How to use this manual

The first four sections of this manual cover information that is useful to understand the operation of D6000 speakers.

Section 5 covers the physical setting up of the speaker including unpacking and positioning.

Connection to other components in your system is covered in section 6.

To program the speakers refer to section 7 and to re-program the speakers see section 8.

So if you have just received your D6000s it is advisable set up the speakers using the 'Getting going' sheet provided and then to read through the information contained in this manual. You will be able to decide how best to integrate the D6000s with the rest of your system and how to program them to achieve this.

If your system is already in place there is a special section for re-programming. This enables you to adjust the system for any new components you wish to introduce or to fine tune your system after you have lived with it for a while. This is section 8.

2.2 Related documentation

Your D6000s should be supplied with the following documentation:

- *Keycard*. A convenient card which describes the button functions of the D6000 handset and the D6000 display responses.
- *D6000 User Manual*. After the installation is working this and the Keycard are all you need.
- *D6000 Setup Manual*. This manual which describes in more detail how the D6000 works, how to achieve an installation, how to program or customise functions.
- *Getting going*. A fast installation guide for a simple system. How to get music while you decide on the details.

2.3 Conventions used in this manual

The following conventions are used in this manual. A **Bold** word refers to a user-specific part of the D6000, D6000 handset or another *Meridian* product; e.g.

- **D1** socket. This refers to the input socket on the back panel labelled D1 in the input bank. **D1** stands for Digital input number 1.
- Press **CD**. This refers to a key on the D6000 handset marked 'CD'.

Text between square brackets illustrates a display or cue in the front display window. e.g.

- **[d1. 27]** is the display for Digital input 1 and volume number 27. Sometimes only one or a few part of the display are important. In this case the other parts, that are not so important, are shown as '#' e.g. **[cd.##]** where ## is in this case the volume number.

Words appearing in the text in all upper-case italics usually refer to a status of the system; e.g. 'in *RADIO*', refers to the state after pressing **Radio** on the D6000 handset. 'In *STANDBY*' would mean after pressing **Standby**.

3 Speaker description

You will find it simpler to understand the processes in the D6000 if you consider it to be a combination of the following functions:

- Digital preamplifier to select and control up to four digital sources directly and to provide fixed and switched digital output for another device, usually the other D6000.
- Digital audio processor including decoding, error detection and correction, CRC and interpolation.
- Digital signal processor including tone controls, digital crossover, balance and volume.
- Three precision single-channel digital to analogue *Bitstream* converters for bass, mid-range and tweeter.
- Remote control for all functions including volume, balance, mute and various tone-control options.
- Controlling computer.

- *Meridian* 600-Series communicator.
- *Meridian* 200-Series communicator.
- 3-way active loudspeaker including four 75W power amplifiers per speaker.

4 General background

The D6000 contains some unique combinations of technology and you should bear the following in mind.

Each D6000 is controlled by an internal computer. This interprets the commands from the D6000 handset, communicates with other *Meridian* components, operates the display and supervises the digital audio process.

The D6000, in common with other components of the *Meridian* Multiroom system use a technique called 'source mapping'. Source mapping allows flexibility in the following attributes of the source:

- Its name.
- An associated display.
- The key on the D6000 handset that calls the source up.
- The physical input of the D6000 that receives the signal from this source.
- Whether the source is controllable.
- Where it is located.

This means that the D6000 is ultimately very flexible so the it can be programmed to respond the way you want it to.

4.1 Master and Slave speakers

In every room containing D6000s one of them is chosen either by its factory setting or by user set-up to be in charge of the other *Meridian* components in that room and we refer to it as the *Master* speaker. It takes charge of coordinating the functions of the other D6000 and it communicates with the rest of the *Meridian* products via the M-lead provided. The *Master* speaker is also the one that 'watches' the D6000 handset and so should be placed with the best view of the room but the connections to the rest of your system also have to be considered.

An installation uses two D6000s, one as the *Master* speaker and the other as a *Slave*. So the *Master* speaker accepts most of the inputs from the other components in your system and feeds the appropriate signal to the *Slave* together with instructions for what the *Slave* should be doing with that signal. The *Master* is in total control.

4.2 Left and Right

Since the digital audio signal is a stereo format the D6000s need to be told which is left and which is right. Physically the speaker cannot be reversed as they are made as a left and right pair. We refer to the left D6000 (viewed from the listening position) as the *Left* speaker. The *Left* speaker is identified by a gold stripe down the right front edge of the speaker which lines up with a similar stripe on the *Left* head unit.

We have not restricted you to having the *Master* speaker on the *Left*, this choice is independent since it affects the way the cables run in your installation. As supplied the D6000s are set up as a *Left Master* and a *Right Slave* as indicated by a spot in the appropriate box on the back of each speaker but this may be altered. A quick summary of how to swap *Master* and *Slave* is given in section 7 of the 'Getting going' sheet.

4.3 Control

The D6000s are operated either by commands received from the D6000 handset (supplied with the loudspeakers) or by commands received on the **Comms** cables of a *Meridian* installation, e.g. from the front panel of a 603.

The D6000 handset provides enough keys to allow you to drive a *Meridian* installation via the D6000s, and this is the preferred method.

D6000 is not *directly* operated by a 209 System handset. A 209 can operate some of the D6000 functions if you have a 603 or 201 in the same room. This is because when you select an input from one of the *Meridian* preamplifiers this information is sent to the *Master* speaker via the M-lead so that it can change the status of the D6000s. This may involve a display and an input change but this depends on the way the D6000s are setup.

As part of the installation however the 209 can still access features of the other products not catered for by the D6000 handset.

Note Facing Page 1 is a diagram of the top of the D6000 handset and the key legends.

4.4 Display

D6000 displays information to help you operate it. See the diagram of the front glass window area facing Page 1. Display information can include:

- **System 1** (red light), **System 2** (yellow light) and **System Local** (red and yellow lights)
- Blank display [.]
- *STANDBY* indication [.]
- *SETUP* information during programming
- Selected source type
- Selected input connection
- Volume number
- Tone control information
- Positive phase indication by dot [##.##]
- Loudness on indication by dot [## ##.]
- Muted condition
- Track and time information when the source is a digital one that includes these codes – e.g. CD
- Error messages
- CD track selection if used with a *Meridian* CD
- Frequency, Preset number and Preset selection when the installation includes a *Meridian* 204 FM tuner

For a full list of displays see Appendix C.

Note Using the **Display** key you can change the *Master* speakers display. e.g. the *Slave* speaker will display source and volume while the *Master* could display track, time or frequency information.

Note Only the *Master* can display track, time or frequency information as this comes from the products to the *Master* speaker via the M-lead and is not passed onto the *Slave*.

5 Unpacking and installation

Be sure to retain the packaging for possible future transportation.

WARNING Take great care when unpacking or repacking the D6000 that you do not put any pressure on the front area of the head unit or the side area of the base unit. The drive units will be damaged if pressed.

In the three packs you should find:

- 2 D6000 Digital active speaker base units complete with glass panels and grilles
- 2 D6000 head units complete with cups
- 8 screw-in spikes with lock nuts and foot caps
- Wrench for spikes
- 6 knurled screw-in spikes
- D6000 remote control handset
- Battery for D6000 handset
- D6000 User Manual
- D6000 Setup Manual
- Getting going sheet
- D6000 Keycard
- 2 Power cords suitable for your territory
- 2 head connection leads (may not be included on earlier models).
- Composite system cable M (phono + DIN + DIN to phono + DIN, 8 metres)
- Composite system cable S (phono + DIN to phono + DIN, 6 metres)
- Hex wrench 3mm, for drive units

5.1 Fitting the feet

It is easiest to fit the feet to the main speakers with them upside-down before removing the inner carton or foam packing. Each D6000 requires four feet to be fitted as follows:

- Locate the eight screw-in spikes with lock-nuts, foot caps and wrench provided.
- Each spike requires a lock-nut to be fitted about 2mm away from the end of its thread. If a foot is required rather than a spike fit the foot cap. Screw each foot into the threads on the bottom of the base units. Do not fully tighten the foot at this stage.
- When all four feet are fitted, carefully place the D6000s upright in their playing positions.
- Remove the rest of the packaging.

5.2 Installing the head units

- If the spikes on top of the base part of the speaker are not fitted then locate the six spikes and screw them in to the three holes in the top of each base section.
- Place the heads on top of the base units so that the gold stripes on the head and base units line up. The speakers have the correct orientation if the sloping sides on the heads are to the outside.
- Connect the lead that comes out of the top of the base unit to the socket in the back of the head unit. If this lead is not in place there will be a separate lead in the packaging. This must be connected as follows. The end of the lead marked with a red band should first be connected to the head unit and the other end then connected to the base unit. Disconnection should always be made from the base unit first and **NEVER** with the power connected and switched on.

Note This is for audio and without it you will only hear the bass frequencies of your source music.

It is advisable to remove the head units while movement of the speakers takes place. This is achieved by disconnecting the head lead from the base unit and lifting off the head. While not in place the head should be stored safely but care should also be taken of the surface they are placed upon as it may be damaged by the cups.

IMPORTANT: DO **NOT** DISCONNECT THE HEAD LEAD WHILE THE UNIT IS CONNECTED TO THE AC SUPPLY AND SWITCHED ON.

IMPORTANT Care must be taken while the head is not in position as this exposes its mounting spikes.

5.3 D6000 handset

The D6000 remote control handset uses infrared transmission to operate the D6000. It uses a PP3 battery (supplied but not installed).

When a key is pressed, an indicating light shows on the D6000 handset.

This light becomes inconsistent or weak when the battery needs changing.

Normally the battery will last up to a year but we recommend that you change the battery routinely every six months since there are no front-panel controls on the D6000 and the system requires the D6000 handset.

To fit the battery, place the D6000 handset face-down on a clean soft surface. Remove and retain the four screws which secure the bottom cover plate. Lift off the plate and carefully fit the battery to its connector. Place the battery in its lined compartment, replace the bottom cover plate and refit the screws.

To check the D6000 handset press any key and look for the flashing yellow light.

Note We advise that you use a good quality alkaline battery in your handset as this will last longer.

Note Do not store the unit where it may get overhot.

Note Do not store the unit face-down or rest objects (e.g. magazines) on top of the D6000 handset. This could cause one of the keys to be pressed and the battery life to be considerably shortened.

5.4 Siting

We recommend that you now get the system to a state were you can listen to music and adjust the position of the D6000s if necessary. This can be accomplished by following the instructions in the 'Getting Going Sheet' or the rest of this manual.

A pair of D6000s must be placed in suitable positions to get the best acoustic result but when moved should always have the head unit removed. See section 5.2.

For stereo, ideally the two speakers are placed equidistant from the main listening position, and the same distance apart.

D6000 has good treble dispersion and it will usually be located for best appearances perpendicular to a back wall.

The D6000 has Bass controls to allow adjustment of the low frequency response to room acoustics and positioning, nevertheless you should try to achieve the following:

- If possible have the most acoustically absorbent wall behind the speakers. This could be an open bookcase, curtained window or each side of a bow-window.
- If possible have each D6000 at least 50cm from a corner.
- If possible have each D6000 at least 10cm from the back wall.
- After finding by trial and error the best position for the D6000s where possible use the spiked feet under the black plastic protecting foot caps. This will give improved definition to the sound and better physical stability.
- If possible locate the listening position so that your head is at least 60cm from the wall behind you (unless it is acoustically absorbent).

Consider the following practical points:

- If possible locate the D6000s so that the electronics (back) of the speaker are not subjected to long-term strong sunshine. In *STANDBY* the back plates should be cool (less than hand-hot).
- If possible locate the D6000s so that the one chosen to be the *Master* speaker does not receive direct sunlight on the front display window. This can occur in higher latitudes during some part of the year and if it happens the D6000 may not 'see' your commands from the D6000 handset. No harm will be done to the D6000, it is simply inconvenient.
- The placement of the *Master* speaker also depends on the connections to it from the rest of your system so section 6 should be referred to.
- Do not, if possible, locate the D6000s with their backs to any heat source — e.g. central heating radiators.
- Try to arrange a separate AC power outlet for each D6000. The use of adapter units is discouraged, at best they degrade the possible sound quality.

5.5 Final adjustments

When you are happy that the D6000s are in the correct position you should adjust and finally tighten the feet with the wrench provided.

We strongly suggest that you try to use the spike feet to get the best sound.

- Foot caps may be fitted if the spikes are unacceptable.

The spikes allow the D6000s to rest firmly on the floor. The spikes pass through carpet to the wood or concrete below and do less damage than a wide foot.

The best sound will only be obtained if the D6000s are firmly mounted and cannot rock at all. If the finish of the floor prevents the use of spikes leave the plastic covers on but adjust the feet to the floor so that the D6000s are vertical and show no tendency to rock.

One or two days after installation check the tightness of the screws retaining the drivers. These screws may loosen in shipping or with extremes of temperature or humidity, and the speaker will not sound at its best if these are loose. These screws should be checked every few months particularly if the speakers are played loud for extended periods of time.

6 Connecting

You need to plan the connections for the installation you wish to achieve. It is best to do this while finalising the position of the D6000s as this may affect the way you connect the rest of your system and the positioning. The decision as to which speaker should be *Master* is also dependent on both positioning and connections.

The following sections will explain in detail the options open to you. Remember that your *Meridian* dealer is chosen for his expertise in this area and if in doubt you can always refer to him.

6.1 Connectors

Facing Page 1 is a diagram of the back panel of the D6000 showing the connection sockets. The following list describes their use.

- **Output Local** A DIN connector which is used to send information on to the D6000 *Slave*.

  NEVER connect an audio DIN lead to this socket.
- **Input Global** A DIN connector which is used to exchange information with other *Meridian* components. In one sense it can be thought of the communications input to this D6000.

  NEVER connect an audio DIN lead to this socket.
- **Optical comms** These three optical socket are used for connecting optical comms to other *Meridian* components and to the *Slave* speaker.
- **Opt 1** The first digital input using a fibre-optic cable.
- **Opt 2** The second digital input using a fibre-optic cable.
- **D1** The first digital input using a coaxial cable.
- **D2** The second digital input using a coaxial cable.
- **D OUT** A digital output which is selected by the D6000 to pass on to the other D6000, this means the *Slave* only needs to have one digital input connected.
- **AC** The lower panel contains the power supply and should already be adjusted for your local supply voltage — check the labelling. The panel contains a 3-pin IEC power inlet plug with a power switch and integral fuse holder.

6.2 Getting started

6.2.1 Locating the Master

The *Master* has the most connections made to it and is the one that connects directly to any other *Meridian* products, e.g. 602, 603, 607 or Multiroom components. In the final installation the *Master* should be located nearer to the sources since this will be tidiest. You should now be able to choose where the *Master* will be and therefore whether it is a *Left* or *Right* speaker.

6.2.2 Routing cables

Do not route the D6000 cables any nearer to TV or Radio antenna cables than is necessary. Try to keep any excess cable lengths coiled up as far from a tuner or television receiver as possible.

Where possible use dedicated AC power outlets for each D6000. In particular try not to use the same outlet group for any tuner or TV.

D6000 is a digital audio product and its use involves distributing digital audio signals. This is a new field and following the instructions could be important. Incorrect distribution of digital audio could lead to radio interference, noticeable errors or a lower than possible sound quality. Correct distribution will give you the best sound it is possible to have. You may be able to use the cables we supply.

6.2.3 AC connection

Before connecting to the AC supply check that the unit is adjusted to the correct voltage for your supply.

IMPORTANT: DO NOT MAKE CONNECTIONS OR INSERT OR REMOVE PLUGS WHILE THE UNIT IS CONNECTED TO THE AC SUPPLY AND SWITCHED ON.

Connect to AC power with the cord provided.

- Each D6000 should be connected to an approved AC outlet using the cord provided.
- If at all possible adapter or extension accessories should not be used even if of an approved type.
- If a power-line filter is to be used try to use a permanent type and be sure that it is approved to the standards of your territory and that it retains the grounding.

WARNING D6000 must be grounded

6.2.4 Connection using M and S-leads

For many systems only the supplied composite M and S-leads will be required. If this is not appropriate further information can be found in sections 6.3 and 6.5.

To get a CD player working with the D6000s do the following:

- Locate the cable marked with an 'S'. This is a DIN + Phono to DIN + Phono lead about 6m long.
- Connect one DIN plug to the **Global** socket and the the accompanying phono plug to the **D1** socket on the *Slave* D6000.
- Connect the other end to the **Local** socket and the **D OUT** socket of the *Master*.

This completes the interconnection of the D6000 pair. Then:

- Locate the cable marked with an 'M'. This is a DIN + DIN + Phono to DIN + Phono lead about 8m long.
- Locate the end with the single DIN and phono plug. Connect this DIN plug to the **Global** socket and the phono plug to the **D1** socket on the *Master*.
- At the other end of this cable locate the phono plug and connect it to the digital output of the CD player.

Note Getting this far should provide you with audio and any further connections gain control of any *Meridian* products in your system. For connection of *Meridian* comms see section 6.5.

6.3 Digital audio connections

6.3.1 General

Note A digital audio connection is made into the **D1** input if you use the **M** and **S** leads supplied as directed in section 6.2.4.

Digital audio has to be conveyed to both D6000s in the installation. This can be done directly from your source to each D6000 optically if:

- the source has multiple optical outputs, or:
- you are using a splitter device.

Normally each digital audio source is connected only to the *Master*, and then the selected source is passed from the **D OUT** socket of the *Master* to the *Slave* via the **S-lead** to the **D1** socket.

6.3.2 Coaxial sources

The D6000 has two coaxial digital inputs **D1** and **D2**. The **M** and **S** leads provided, which will be sufficient for the large majority of installations connect to the **D1** input and the **D OUT** output.

You will need to provide custom cables if:

- You wish to use **D1** and **D2**, or:
- You are wiring a *Multiroom* installation, or:
- You require cable lengths different from those provided, or:
- You intend to feed each D6000 directly using optical fibre.

In all cases the requirements are the same.

- Use standard phono plugs at each end.
- Use a very high-quality coaxial and optical cable. Coaxial must have a characteristic impedance of 75 ohms, be low-loss at video frequencies and be very well shielded. *Meridian* supply a double-shielded custom digital audio cable as an accessory.

6.3.3 Analogue connections

There are no analogue connections on the D6000 so any analogue sources must be first converted to digital. This has been catered for by the creation of a new product called the *Meridian* 607. This is an analogue to digital (A/D) converter that must be connected between your analogue source or pre-amplifier and the chosen input on the D6000.

We advise that you connect the output of your analogue source to the indirect input of the 607 and then feed either optical or coaxial to the D6000. Further information is available in the 607 User Manual.

6.4 Optical connections

This section is used to explain the use of any optical interconnects and may be used as the basis for setting up the completely optical system.

There are two different types of connection to be made, digital audio and communications.

Note Any unused optical connectors should have their covers fitted to ensure that there is no optical interference from external sources.

6.4.1 Optical digital audio

The D6000 has two optical digital inputs **OPT 1** and **OPT 2:**

- *either*

An optical source will be connected using an optic-fibre from the source to the *Master*. The *Slave* then receives the signal conveyed on coaxial cable from the **D OUT** of the *Master* using the S-lead. Using optical connections in this way is perfectly valid since it maintains the isolation between the source and the D6000s. The *Master* and *Slave* are not usually isolated from each other unless optical communications are used.

- *or*

Up to two optical sources are fed into both speakers individually using **OPT 1** for the first source and **OPT 2** for the second. The programming for this is covered in section 7.3.3.

An example system that uses the separate optical inputs is to use:

- 602 CD transport unit.
- 603 Control unit.
- 607 A\D converter.

The audio connections are as follows:

- The dual optical outputs of the 602 can be connected to the **O1** inputs of the *Master* and *Slave* speakers.
- The dual optical outputs of the 607 can be connected to the **O2** inputs of the *Master* and *Slave* speakers.
- The audio input to the 607 can come from the variable output of the 603 with the volume level set appropriately.
- Any other inputs from analogue sources can be fed via the 603.

Note The optical communications connections for this system are described in section 6.5.6

Note Long optic-fibre leads are available from *Meridian*.

6.4.2 Optical comms Master to system

Optical communications operates via a ring, where one unit starts a message passing it to its neighbour. Then the next unit passes the message on until the ring is completed. The ring can contain from two to as many products as is necessary. Each connection in the ring should go from a connector marked **OPTICAL COMMS IN** to a connector marked **OPTICAL COMMS OUT.**

An example system to achieve the full optical setup is to use

- 602 CD transport unit.
- 603 Control unit.
- 607 A\D converter.

Note The optical communications connections for this system are described in section 6.5.6

Note Optical comms ring connections need only be made to the *Master* speaker as the *Slave* speaker has its own connection to the *Master*.

6.4.3 Optical comms Master to Slave

Slave optical comms is not in the normal communication network and has no need of a return connection. The *Slave* link is made from the socket on the *Master* marked **OPTICAL COMMS LOCAL OUT** to the socket on the *Slave* marked **OPTICAL COMMS IN.**

The only advantage in using the *Slave* optical comms system is to isolate the *Master* from the *Slave.*

6.5 System comms connections

Note This connection is made for **System 1** if you use the **M** and **S** leads supplied. If you wish to use the leads supplied their connection is described in section 6.2.4.

The connection of *Meridian* comms can be quite complicated so each possible system is noted in the table below so that you can refer to this and the particular section of interest to you. The table is set out in three stages for incrementing number of products to be connected (i.e. 1, 2, 3).

Note Preamp refers to either 201 or 601.

Note CD refers to 602, 200, 206, 208, 207.

Note Other CD refers to 200, 206, 208, 207.

Note Tuner refers to either 204 or 604.

Note If the system is a *Meridian Multiroom* installation then refer to the Multiroom Technical Reference Manual.

Connection of one other product:

Product	*Sections*
603	6.2.4 and 6.5.1
Preamp	6.2.4 and 6.5.2
CD	6.2.4 and 6.5.3
Tuner	6.2.4 and 6.5.4

Connection of two other products:

Product	*Sections*
603 + 602	6.2.4 and 6.5.5
603 + 602 optically	6.5.6
603 + Other CD	6.2.4 and 6.5.7
603 + Tuner	6.2.4 and 6.5.8
CD + Tuner	6.2.4 and 6.5.9
CD + Preamp	6.2.4 and 6.5.10
Preamp + Tuner	6.2.4 and 6.5.11

Connection of three other products:

Product	*Sections*
603 + 602 + Tuner	6.2.4 and 6.5.12
603 + Other CD + Tuner	6.2.4 and 6.5.13
Preamp + CD + Tuner	6.2.4 and 6.5.14

6.5.1 Connection of 603

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **600 COMMS** on the 603.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.2 Connection of 201 or 601 Preamp

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the preamp.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.3 Connection of CD player

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the CD player.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.4 Connection of 204 or 604 Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the tuner.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.5 Connection of 603 + 602

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **600 COMMS** on the 602.
- Connect the optical comms between 602 and 603 as directed in the 603 User Manual.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.6 Connection of 603 + 602 optically

- Connect the 602 socket marked **OPTICAL COMMS OUT** to the 603 socket marked **OPTICAL COMMS IN.**
- Connect the 603 socket marked **OPTICAL COMMS OUT** to the D6000 socket marked **OPTICAL COMMS IN.**
- Connect the D6000 socket marked **OPTICAL COMMS OUT** to the 602 socket marked **OPTICAL COMMS IN.**

6.5.7 Connection of 603 + other CD

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200 COMMS** on the CD player.
- Connect the other DIN plug of the M-lead to the 603 via an I-adaptor.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the wrong socket.

6.5.8 Connection of 603 + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **600 COMMS** on the 603.
- Connect the other DIN plug of the M-lead to the socket marked **201/2** on the tuner.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the wrong socket.

6.5.9 Connection of CD + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the CD player.
- Connect the other DIN plug of the M-lead to the socket marked **201/2** on the tuner.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the wrong socket.

6.5.10 Connection of CD + Preamp

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the CD player.
- Connect the other DIN plug of the M-lead to the socket marked **200/600 COMMS** on the preamp.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the wrong socket.

6.5.11 Connection of Preamp + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **cd** on the tuner.
- Connect the Q-lead, provided with the tuner between the socket marked **201/2** on the tuner to the socket marked **200/600 COMMS** on the preamp.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.12 Connection of 603 + 602 + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **600 COMMS** on the 602.
- Connect the optical comms between the 602 and 603 as directed in the 603 User Manual.
- Connect the 603 socket marked **600 COMMS** to the tuner socket marked **CD** using a B-lead.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.13 Connection of 603 + other CD + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **600 COMMS** on the 603.
- Connect the other DIN plug of the M-lead to the socket marked **201/2** on the tuner.
- Connect the lead supplied with the CD player between the socket marked **200/600 COMMS** on the CD player to the socket marked **CD** on the tuner.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

6.5.14 Connection of Preamp + CD + Tuner

- Connect one of the DIN plugs on the free end of the M-lead to the socket market **200/600 COMMS** on the CD player.
- Connect the other DIN plug of the M-lead to the socket marked **CD** on the tuner.
- Connect the Q-lead between the socket marked **200/600 COMMS** on the preamp and the socket marked **201/2** on the tuner.

Note the two DIN plugs at this end of the **M-lead** are different and damage will result if you try to force the wrong plug into the socket.

7 Programming

7.1 Introduction

Programming of D6000s should take place after you have setup the speakers and sorted out most of the connections. If you have the speakers working with some kind of digital input (e.g. a CD player) with the programming as provided i.e.. *TYPE 1*, then you can always go back to that start point if a mistake is made.

7.1.1 Introduction to systems

If you are adding to a *Meridian* Multiroom installation then you must take account of the *logical* communication control to the sources.

The Multiroom system allows D6000 to communicate to both the **System 1** and **System 2** sections of a 201 preamplifier.

In any system, controllable sources e.g. 208 or 204 can be attached for *control purposes* to either **System 1** or **System 2**, this allows you to control two products of the same type from the D6000 by putting one on **System 1** and the other on **System 2.**

Note The sources could be in the same room as the D6000.

- D6000 controls **System 1** sources when it is set to System 1 (red light)
- D6000 controls **System 2** sources when it is set to System 2 (yellow light)
- If you are not using a two-system 201 or if you do not have two sources of the same type then during the setup assign all sources to **System 1** and make **System 2** non-existent.

In a D6000 installation you can also define a so-called **Local system.** This local system is a way of telling the D6000 that source keys on the D6000 handset will directly select D6000 inputs without changing settings on a *Meridian* Multiroom installation. It is quite possible to use **System 1** to direct D6000 handset source keys to a 201 and to switch to **System local** to select other direct inputs *with the same keys.*

Note Type 6 is the only standard system that uses **System 2. System local** is not set up in any default types.

7.1.2 Introduction to sources

The D6000 handset has six source keys **CD, Radio, LP, Tape1, Tape2** and **Video.**

You can set up a different source and routing for each of these keys for *each* of **Systems 1, System 2** and **System local,** i.e. if you wanted to you could select between fourteen sources (six on **System 1** into one input of the D6000, six on **System 2** into a second input on the D6000 and the other two sources directly into the D6000).

Note Appendix B explains all the options available with the D6000 and can be referred to when deciding on how to connect and control your sources.

7.1.3 Introduction to programming

Programming is the process of telling the D6000 what you want it to do when the D6000 handset is used. It is based round the *TYPE* system where there are six different *TYPES* and you choose the best *TYPE* for the system you have. Programming is achieved using the D6000 handset so you will have to follow the instructions in section 5.3 to get the handset working first.

The first step in programming D6000s is to choose and select the start *TYPE*. Appendix A gives an overview of the six different *TYPES* and Appendix B an overview of the options available with D6000 as a whole.

Note At any time whilst programming the D6000s you can turn the power off to the speaker you are working on and all that you have done will be remembered. To restart programming see section 8.

Note When you have completed the programming it is only necessary to turn the power off to the speaker and turn it back on again to get out of the programming mode.

7.2 Type selection, the first step

To programme D6000 speakers it is best to choose a starting point from one of the six standard *TYPES*. These are described in Appendix A and it may be possible to find one that meets your needs exactly. Otherwise choose the one that is closest to your requirements. Once you have chosen the *TYPE* follow these steps to select it and setup *Master, Slave,* (see section 4.1) *Left* and *Right* (see section 4.2) speakers.

- Power the *Left* speaker (indicated by the gold stripe down the right hand side of the speaker) alone while continually pressing the number key on the D6000 handset that corresponds to the *TYPE* you have chosen (e.g. *TYPE 1* is selected with a 1). The speaker will display **[L.]**.

This display tells you that the speaker will be a *Left Master.* To change it to a *Left Slave* if required:

- Press **Play.** The display will show **[L. S.]**.
- Turn off the power to the speaker if you wish to use the *TYPE* as specified. Otherwise adjust the programming to your requirements using the information in the rest of section 7 and then turn off the power to the speaker.
- Power the *Right* speaker (indicated by the gold stripe down the left hand side of the speaker) alone while continually pressing the number key on the D6000 handset that corresponds to the *TYPE* you have chosen (e.g. *TYPE 1* is selected with a 1). The speaker will display **[L.]**.
- Press **Left** to obtain the **[r.]** display.

The second part of the display is blank telling you it is still a *Master.* To make this speaker into a *Right Slave* if required:

- Press **Play.** The display will show **[r. S.]**.
- Ensure that you have set the two speakers to opposite settings. For example if you set the *Left* speaker to **[L.]** then the *Right* must be **[r. S.]**.
- Turn off the power to the speaker if you wish to use the *TYPE* as specified. Otherwise adjust the programming to your requirements using the information in the rest of section 7 and then turn off the power to the speaker.
- Mark both speakers on the back in the area provided in the label. Use a pencil so that you can change the marking in future.

You now have your speakers set up in the start *TYPE* of your choice. The following sections explain how to modify this setting to fine tune the system. You will find in Appendix B a list of the different options available to you. This should give you an overview of what you can and cannot do with D6000s.

Note D6000s should not be switched on, under normal conditions, with any key on the D6000 handset pressed as this may select a new *TYPE* and change any previous programming.

7.3 Root menu options

The *ROOT MENU* controls the overall operation of the D6000s with options for: *Master*, *Slave*, *Left*, *Right*, separate optical feed for *Slave* and blank display on Slave.

You get to the *ROOT MENU* by: *TYPE* selection (see section 7.2), editing *TYPE* (see section 8) or at any position in the programming process by pressing **Reset**.

7.3.1 Master, Slave options

To make the speaker into a *Master* or a *Slave* use the **Play** key on the D6000 handset while in the *ROOT MENU*.
Slave indicated by **[###S]**
Master indicated by the absence of the *Slave* indication

7.3.2 Left, Right options

To make the speaker into a *Left* or a *Right* speaker use the **Left** key on the D6000 handset while in the *ROOT MENU*.
Left indicated by **[L.###]**
Right indicated by **[r.###]**

7.3.3 Optical slave option

The optical *Slave* option allows the two optical digital feeds for the slave to come directly from two different sources, rather than via the *Master* speaker. The *Slave* will follow the optical source that the *Master* selects as shown in the table below. (Using *TYPE 1* as an example):

Key	*Master input*	*Slave input*
CD	**D1**	**D1**
Radio	**D2**	**D1**
LP	**D2**	**D1**
Tape 1	**D2**	**D1**
Tape 2	**OPT 2**	**OPT 2**
Video	**OPT 1**	**OPT 1**

To make the system into an optical *Slave* system you must use the **Stop** key on the D6000 handset while in the *ROOT MENU* after you have made the speaker into a *Master*.

Optical *Slave* system indicated by **[##OP]**

Note The only *TYPE* that includes this as standard is *TYPE 3*. The *Master Slave* input selection is shown in the following table for *TYPE 3*:

Key	*Master input*	*Slave input*
CD	**OPT 1**	**OPT 1**
Radio	**OPT 2**	**OPT 2**
LP	**OPT 2**	**OPT 2**
Tape 1	**OPT 2**	**OPT 2**
Tape 2	**OPT 2**	**OPT 2**
Video	**OPT 2**	**OPT 2**

Note This *TYPE* is also covered in Appendix 3

7.3.4 Slave blank display option

To make the *Slaves* display blank you must use the **Bass** key on the D6000 handset while in the *ROOT MENU* after you have made the speaker into a *Slave*. In this case the *Slave* will show:

- [.] in *STANDBY*
- [.] in *PLAY*

7.4 System menu options

The *SYSTEM MENU* controls the operation of the three systems of the D6000s with options for: which *Meridian* preamplifier will the system control, which system will be the start system (i.e. which system will be activated when a source key is pressed while in *STANDBY*) and system protocols.

You get to the *SYSTEM MENU* by pressing **Standby** at any time in the programming process.

7.4.1 Preamplifier options

The first digit in the *SYSTEM MENU* indicates the presence of the dominant preamplifier in the system.

Note the preamplifier you select could be different for each of **System 1** (red light), **System 2** (yellow light) or **System local** (both lights).

The options offered are:

- **[n###]** 'n' in the first digit has the meaning 'system is non-existent'. The system that does not exist is the one whose light is on in the window. If you only have one system active e.g. **System 1** or **System 2** then you cannot make it non-existent, however in these circumstances you should set the unused systems to **[n###]**.
- **[6###]**. The 6 in the first digit tells you that for this system the D6000 is the only controllable preamplifier connected (i.e. the source keys on the D6000 handset will only select between the four inputs of the D6000 and not control any external *Meridian* preamplifier. For **System local** only options 'n' and '6' are available.
- **[1###]** The 1 means that the preamplifier for this system will be a *Meridian* 201 or 603 and that source keys on the D6000 handset will automatically switch the inputs on the preamplifier regardless of other selections.
- **[7###]** The 7 means that the preamplifier for this system will be a *Meridian* CD/Pre (eg. 207 or 208). The first four input keys **CD, Radio, LP** and **Tape1** on the D6000 handset will automatically switch the inputs on the CD/Pre regardless of other selections. Input keys **Tape2** and **Video** will select **CD** on the CD/Pre.

To move through these options press **Volume up**.

7.4.2 Start system

You can define the start system for the D6000 while in the *SYSTEM MENU*. The start system is the one selected when you bring the D6000 out of *STANDBY*. If the D6000 is part of a Multiroom installation it can be helpful for it to default to one of the systems (1,2 or Local).

- If the system light is the one you want to be the start system, press **Play**.

The display will change to **[###S.]** Here 'S' in the last position says this is the start system. You can only remove the 'S' by positively assigning another system to start, i.e. with a different system light lit in the window press **Play**.

7.4.3 System protocols

Multiroom systems have protocols which allow you to define the extent to which any room can interfere with the main system.
For active **Systems 1** or **2** you can select the protocol flag in the third digit of the display:

- Press **Stop** to rotate between these settings and displays.
- **[## #]** Blank in third position means system 'open'. If you are in any doubt use this setting.
- **[##n#]** n in the third digit means no control of sources on this system i.e. listening only.
- **[##U#]** U in the third digit means no control of sources that are *in use* elsewhere on this System.

7.5 Source menus

The Source menus are used to re-define how the keys on the D6000 handset work in terms of what the D6000 displays, which input is selected and where that input is in the three systems available.

These parameters are already set up by the *TYPE* chosen as the start *TYPE* but can be adjusted using the following menus.

7.5.1 Source menu 1 options

SOURCE MENU 1 controls the display on the D6000 that will result when a key on the D6000 handset is pressed in normal use. Think of it as defining the keypad to your needs.

The purpose of this section is not only cosmetic, certain displays have specific meanings. Refer to Appendix C.

To get into *SOURCE MENU 1*: from the *ROOT MENU* or the *SYSTEM MENU* press the source key you want to define or from *SOURCE MENU 2* press **Right**.
SOURCE MENU 1 display looks like **[cd.cd.]**. The first cd indicates the D6000 handset key being defined and the second indicates the display that will result after pressing this key. Display options are:

- **[??.cd.]** Means that the source selected will be a *Meridian* CD player. D6000 will try to control the CD player in normal use on functions like **Play, Stop** or track selection. (See D6000 User Manual). If you use any non-*Meridian* CD player it will work but the D6000 will try to pass commands to it which may cause a delay in operation. This display also tells the D6000 to look for and check subcode in a digital input.
- **[??.Cd.]** Means that the source is a CD player that is non-*Meridian* and therefore the D6000 cannot control the functions of that CD player. It still looks for subcode in the digital input.
- **[??.rd.]** Means that the source is a *Meridian* 204 FM tuner. The D6000 expects to be able to control this tuner, see D6000 User Manual, and so enables those keys on the D6000 handset.
- **[??.dr.]** Means that the source is a *Meridian* 604 FM tuner. The D6000 expects to be able to control this tuner and so enables those keys on the D6000 handset. This display also tells the D6000 to look for and check subcode in a digital input.
- **[??.tu.]** Means that the source is not a *Meridian* 204, but it is a tuner.
- **[??.CC.]** Means CD Changer that can be controlled by a 232 translator. Subcode is present and read to display track and time information.
- **[??.LP.]** Means that the source is a turntable.
- **[??.dt.]** Means that the source is a digital tape recorder.
- **[??.SA.]** Means that the source is a digital satellite audio source.
- **[??.t1.]** The Tape 1 display, no special meaning.
- **[??.t2.]** The Tape 2 display, no special meaning.
- **[??.t3.]** The Tape 3 display, no special meaning.
- **[??.t4.]** The Tape 4 display, no special meaning, normally associated with the **Video** key.
- **[??. n]** This final option selects the **??** key to be non-existent. By using this option you can prevent the selection of unused inputs to the installation.

Use **Next** or **Prev** to adjust the second legend.
Note The choice of display/input type is completely independent from the D6000 handset key to which it is assigned. If it suits your purpose you can make several sources non-existent **[??. n]**, or several of the same type e.g. **[cd.dt.]** and **[rd.dt.]**.

7.5.2 Source menu 2 options

SOURCE MENU 2 is used to define which input will be selected for any given source key on the D6000 handset.
You get to *SOURCE MENU 2* by using the **Left** key while in *SOURCE MENU 1* or the **Right** key while in *SOURCE MENU 3*.

The display will be like **[cd.d1]**. The first part of the display tells you which key of the D6000 handset you are setting up. The second part of the display tells you which input on the back panel of the *Master* D6000 will be selected when this key is pressed. The choices are:

- **[??.d1]** Input **D1** selected
- **[??.d2]** Input **D2** selected
- **[??.O1]** Input **OPT 1** selected
- **[??.O2]** Input **OPT 2** selected

Use **Next** and **Prev** to select the second legend.

7.5.3 Source Menu 3

SOURCE MENU 3 is used to define which system the *Meridian* products will be in.

You get to *SOURCE MENU 3* by using the **Left** key while in *SOURCE MENU 2*.

Note It is only possible to get to this menu if the chosen display in *SOURCE MENU 1* is one of **cd, rd, CC, dr** (i.e. one of the *Meridian* sources).

The display will be like **[cd. 1]**. The first part of the display tell you which key of the D6000 handset you are setting up. The second part of the display tells the D6000 which system the *Meridian* product is in from the point of view of communications. The choices are **System 1** and **System 2.**

To change the setting use **Next** or **Prev.**

Note If you are in doubt set this parameter to 1.

Note If the installation is not Multiroom or does not employ **System 2** do not select option 2.

8 Editing setup

It is possible to get into the programming mode without changing all the previous settings. This is useful for editing the work you may already have done or to adjust the system for the addition of a new component. To edit the setup:

- Power up the speaker alone while continually pressing the **0** key on the D6000 handset.

This will gain you access to the *ROOT MENU* and further programming is covered in section 7.

Note This method give no indication of what *TYPE* has previously been chosen as it may have been edited and look nothing like the standard *TYPE*.

Appendix A, D6000 types

Appendix A1

Type 1 setup, Meridian CD as preamp (via 607) 204 connected

The *Meridian* compact disc player range includes players that have built in preamplifiers, these include the 207 and 208. To use the analogue inputs of these units it is necessary to put a 607 A\D converter between the fixed output of the preamp section and the **D2** input of the D6000. Using this **Type 1** it is possible to set up a system that controls one of the previously mentioned CD preamp combinations and a 204 FM tuner. It is **Type 1** that is factory set with one D6000 as a *Left Master* and the other as a *Right Slave.*

Controls

The operation of this system is described in detail in section 5 of the D6000 User manual.

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**D1**	**[cd.##]**	cd[3]	**CD**
Radio	**D2**	**[rd.##]**	204	**Line**
LP	**D2**	**[LP.##]**	None	**LP** or **Phono**
Tape 1	**D2**	**[t1.##]**	None	**Tape**
Tape 2	**OPT 2**	**[dt.##]**	None	**CD**
Video	**OPT 1**	**[SA.##]**	None	**CD**

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. cd in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.
3. 'cd' means one of the *Meridian* CD player range.

Appendix A2

Type 2 setup, 201 or 603 as preamp (via 607), Meridian CD and 204 connected

Controls

See Appendix A for two system operation. Keys and sources are mapped and controlled as follows:

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**D1**	**[cd.##]**	cd[3]	**CD**
Radio	**D2**	**[rd.##]**	204	**Radio**
LP	**D2**	**[LP.##]**	None	**Phono** or **LP**
Tape 1	**D2**	**[t1.##]**	None	**Tape 1** or **Tape**
Tape 2	**D2**	**[t2.##]**	None	**Tape 2** or **DAT**
Video	**D2**	**[t4.##]**	None	**Video**

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. CD in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.
3. 'cd' means one of the *Meridian* CD player range.

Appendix A3

Type 3 setup, 201 or 603 as preamp (via 607), Meridian CD and 204, all connected optically

Note Optical feed for *Slave* speaker is in operation here. (See section **6.4.1**)

Controls

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**OPT 1**	**[cd.##]**	cd[3]	**CD**
Radio	**OPT 2**	**[rd.##]**	204	**Radio**
LP	**OPT 2**	**[LP.##]**	None	**Phono** or **LP**
Tape 1	**OPT 2**	**[t1.##]**	None	**Tape 1** or **Tape**
Tape 2	**OPT 2**	**[t2.##]**	None	**Tape 2** or **DAT**
Video	**OPT 2**	**[t4.##]**	None	**Video**

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. CD in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.
3. 'cd' means one of the *Meridian* CD player range.

Appendix A4

Type 4 setup, non-Meridian sources primarily coaxial

Controls

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**D1**	**[Cd.##]**	None	None
Radio	**D2**	**[tu.##]**	None	None
LP	**D2**	**[LP.##]**	None	None
Tape 1	**D2**	**[t2.##]**	None	None
Tape 2	**OPT 2**	**[dt.##]**	None	None
Video	**OPT 1**	**[SA.##]**	None	None

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. cd in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.

Appendix A5

Type 5 setup, non-Meridian sources primarily optical

Controls

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**OPT 1**	**[Cd.##]**	None	None
Radio	**OPT 2**	**[tu.##]**	None	None
LP	**OPT 2**	**[LP.##]**	None	None
Tape 1	**OPT 2**	**[t1.##]**	None	None
Tape 2	**D2**	**[t2.##]**	None	None
Video	**D1**	**[t4.##]**	None	None

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. CD in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.

Appendix A6

Type 6 setup, 202 as 2-system preamp (via 607)

Controls for System 1

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**D1**	**[Cd.##]**	None	None
Radio	**OPT 1**	**[tu.##]**	None	None
LP	**OPT 1**	**[LP.##]**	None	None
Tape 1	**OPT 1**	**[t1.##]**	None	None
Tape 2	**OPT 1**	**[t2.##]**	None	None
Video	**OPT 1**	**[t4.##]**	None	None

Controls for System 2

Key	*D6000 Input*	*Display*	*Control*[1]	*Preamplifier source selection*[2]
CD	**D2**	**[Cd.##]**	None	None
Radio	**OPT 2**	**[tu.##]**	None	None
LP	**OPT 2**	**[LP.##]**	None	None
Tape 1	**OPT 2**	**[t1.##]**	None	None
Tape 2	**OPT 2**	**[t2.##]**	None	None
Video	**OPT 2**	**[t4.##]**	None	None

1. *Control* indicates which, if any, *Meridian* products can be controlled by the D6000 handset when connected to the communications network and selected by the D6000. eg. CD in this column means that *Meridian* CD players can be played, paused, stopped, etc., from the D6000 handset if **CD** is pressed on the D6000 handset first.
2. *Preamplifier source selection* indicates which input on a *Meridian* preamplifier would be selected if the communications network were connected correctly.

Appendix A7

Test setup

Test setup is not recommended for everyday use, however as the name suggests it is very useful for testing the installation and the speakers.

The main advantages of test mode are that you can directly display which physical input of the D6000 has been selected and that entering and leaving this mode does not change any of the programming you may have done previously

This configuration has no left/right standard. **System** toggles the installation left/right. One speaker will show a red light indicating that it is the right digital channel, the other, left shows a yellow light.

- Power the *Master* speaker alone while continually pressing the **Next** key on the D6000 handset. The speaker will display **[d1. 67]**.
- Switch it off. You have now set the *Test Master*.
- Power up the *Slave* speaker alone while continually pressing the **Prev** key on the D6000 handset. The speaker will display **[d1. 67]**.
- Switch it off. You have now set the *Test Slave*.

If you now turn both speakers on they will come up in test mode. To get back to normal user mode power the speaker with the **Reset** key pressed.

Controls

Key	*D6000 Input*	*Display*	*Comments*
CD	**D1**	**[d1.##]**	No control of any sources
Radio	**D2**	**[d2.##]**	No control of any sources
LP	**OPT 1**	**[O1.##]**	No control of any sources
Tape 1	**OPT 2**	**[O2.##]**	No control of any sources

Appendix B, D6000 Options

B1 Speaker options

The *Master* speaker can be on the left or the right but the other side must be the *Slave* (See section 4.1) i.e. Speakers can be either *Left Master* and *Right Slave* or *Right Master* and *Left Slave*.

Left and *Right* speakers are set by the gold stripe down one side of the front of the speaker. The *Left* speaker having the stripe down the right side and the *Right* speaker down the left side. See section 4.2

B2 D6000 input options

Input options are directly displayed in test mode showing the input with the volume number **##**:

Key	*Display*	*Input*	*Type*
CD	**[d1.##]**	**D1**	coaxial
Radio	**[d2.##]**	**D2**	coaxial
LP	**[O1.##]**	**OPT 1**	optical
Tape 1	**[O2.##]**	**OPT 2**	optical

Change is automatic on switching sources.

B3 Slave options

It is normal for the *Slave* to have its digital audio passed onto it by the *Master*. But it is possible for the *Slave* to be connected with a separate optical feed from your source (see section 7.3.3). This option is not available for coaxial digital audio.

Note This must be set up in the *Master* speaker.

You also have the option to blank the display on the D6000 *Slave* speaker. (See section 7.3.4).

B4 System options

There are three systems supported by the D6000 for control purposes. Two (**Systems 1** and **2**) can be used to control external *Meridian* preamplifiers and the third (**System local**) just controls the D6000.

Systems 1 and **2** can use all the six source keys on the D6000 handset and therefore select up to twelve sources between them.

System local just controls the four input of the D6000.

Note System options are more fully explained in section 7.4.

B5 Start system option

If you are using more than one system you will have to decide which system will come up from the *STANDBY* state, this is explained in section 7.4.2.

B6 External preamplifier options

There are two type of *Meridian* preamplifier available and it is possible to choose which of these you wish to control. The first type is the standard preamplifier (i.e. 201 or 603) and the other type includes a CD player (i.e. 207 or 208).

Note These are analogue preamplifiers and the outputs must be converted using a 607 or other A/D converter.

Source selection using the D6000 handset is limited in that no matter how you set up the D6000 the keys will always select the same input on the preamplifier being used. This can be adjusted on the 603 by programming it in its own right (See 603 user manual) but the other preamplifiers do not have this option. Keys control inputs as follows:

Key	*207/208 Input*	*201 Input*	*603 Input*
CD	**CD** (internal)	**CD**	**D1**
Radio	**Line**	**Radio**	**Radio**
LP	**LP**	**LP**	**LP**
Tape 1	**Tape**	**Tape 1**	**Tape in**
Tape 2	**CD** (internal)	**Tape 2**	**D2**
Video	**CD** (internal)	**Video**	**Video**

Note Selection is explained in section 7.4.1.

B7 Display options

Source type selection is displayed along with the volume number **##** in the following displays:

- **[cd.##]** *Meridian* CD only
- **[rd.##]** *Meridian* 204 FM tuner only
- **[LP.##]** turntable
- **[t1.##]** Tape 1
- **[t2.##]** Tape 2
- **[t3.##]** Tape 3
- **[t4.##]** Video/Tape4
- **[tu.##]** non-*Meridian* tuner
- **[SA.##]** Satellite
- **[dt.##]** DAT
- **[Cd.##]** non-*Meridian* CD
- **[CC.##]** non-*Meridian* multi-disc CD
- **[dr.##]** *Meridian* 604 Digital tuner only
- **[nA]** not available (momentary display).

Note These are the 'normal' displays of the D6000 with positive phase and loudness off.

B8 D6000 handset control options

Sources—up to six source keys available, but can double up if **System** key used.

Balance—Left/Right balance up to 30 volume steps

Standby—Put the D6000 and other *Meridian* components in the *STANDBY* state.

Meridian CD control—Available using the grey keys.

Meridian 204 FM tuner control—Available using the grey keys.

Absolute phase—Inverts the absolute phase of the digital signal.

Bass—Alters the low frequency response of the D6000.

Tilt—Alters the high frequency response of the D6000.

Loudness—Alters the low frequency response at low volume levels.

Axis—Alters the ideal listening height of the D6000s.

Memory—Stores and recalls the response settings.

Display—Alters the D6000 display.

Volume—Changes the volume of the music.

Mute—Attenuates the sound.

System—Used to control different Systems.

Reset—Resets the responses to there default settings.

Appendix C, D6000 displays

C1 Source displays

The # is used to represent numbers and letters. Source type selection is displayed along with the volume number in the following displays:

- **[cd.##]** *Meridian* CD
- **[rd.##]** *Meridian* 204 FM tuner
- **[LP.##]** turntable
- **[t1.##]** Tape 1
- **[t2.##]** Tape 2
- **[t3.##]** Tape 3
- **[t4.##]** Video/Tape4
- **[tu.##]** non-*Meridian* tuner
- **[SA.##]** Satellite
- **[dt.##]** DAT
- **[Cd.##]** non-*Meridian* CD
- **[CC.##]** non-*Meridian* multi-disc CD
- **[dr.##]** *Meridian* 604 Digital tuner
- **[nA]** not available (momentary display).

Note These are the 'normal' displays of the D6000 with positive phase and loudness off.

C2 Phase and loudness indication

All of the source + volume displays shown in appendix A1 are used to indicate the status of the phase and loudness functions e.g:

- **[##.##]** positive phase loudness off
- **[##.##.]** positive phase loudness on
- **[## ##]** negative phase loudness off
- **[## ##.]** negative phase loudness on

i.e. point after source indicates positive phase and point after volume number indicates loudness on.

C3 Input displays

In test mode we have D6000 inputs displayed with volume number ##:

- **[d1 ##]** **D1** input selected
- **[d2 ##]** **D2** input selected
- **[O1 ##]** **OPT 1** input selected
- **[O2 ##]** **OPT 2** input selected

Change is automatic on switching sources.

C4 CD displays

Using **Display** the *Master* can show:

- **[#]** track display 1 to 9
- **[##]** track display 10 to 99
- **[#.#]** track + index display 1 to 9
- **[##.##]** track + index display 10 to 99
- **[End]** display of end of CD.

or:

- **[##.##]** disc-time display (counting)

or:

- **[#.##]** track-time display (counting)

If the CD player is a *Meridian* CD:

- **[dir.]** *Meridian* CD is loading the disc.
- **[----]** No disc loaded in the player
- **[--##]** A disc with ## tracks is loaded, but it is stopped.
- **[---]** A disc stopped with time display selected.
- **[--]** A disc stopped with track-time display selected.
- **[Pse]** The cd player is paused.

C5 204 tuner displays

Using **Display** the *Master* can show:

- **[###.#]** Frequency in MHz

or:

- **[P. #]** preset number.

C6 Select displays

When using a *Meridian* 204 or *Meridian* CD preset numbers or tracks can be selected with **Next** or **Prev**, or with numbers.

- **[S. #]** This is a select display.
- If on *CD* use **Play** to action.
- If on *Radio* use **Play** to action.

C7 Tone control displays

Tone controls can be reviewed or modified when their cursors are up. The cursors are:

- **[NOr]** loudness function off
- **[LOUd]** loudness function on
- **[b. ##]** bass shelf cursor
- **[t. ##]** tilt cursor

C8 Other function displays

Other functions can be reviewed or modified when their cursors are up. The cursors are:

- **[POS]** absolute phase positive
- **[nEG]** absolute phase negative
- **[A.-#]** axis cursor

C9 Memory displays

- **[Sto.]** Store
- **[rEc.]** Recall
- **[rES.]** Reset

C10 Balance displays

- **[L. ##]** balance set ## to left
- **[r. ##]** balance set ## to right

C11 Error displays

- **[C. 72]** This is the calibrate mode display. Any adjustments made in this mode will change the response of your speaker. Read Appendix E immediately.
- **[Err.]** You have tried to select a track or preset that does not exist.
- **[nA.]** You have tried to select a system or input source that has been nullified.
- **[boot]** A boot error has occurred, the D6000 needs to be reprogrammed.

- **[junk]** A display of meaningless characters indicates that electrical interference has disturbed the microprocessor and that it will be necessary to switch the D6000 off and on. No harm will have resulted if it reboots normally.

C12 Version number

The version number of the software in the D6000 can be seen in *STANDBY* by pressing **Display**. The D6000 will respond [#.#] where #.# is the version.

Appendix D, Help!

D1 Interference

Note D6000 is a digital audio and computing device which has been designed to very high standards of Electromagnetic Compatibility.

FCC WARNING: This equipment generates uses 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.
If this equipment does cause or suffer from interference to/from radio or television reception then the following measures should be tried:

- Check that the system is adequately grounded in accordance with the instructions.
- Reorient the receiving aerial or route the antenna cable of the receiver as far as possible from the D6000 and its cabling.
- Ensure that the receiver uses well-screened antenna cable.
- Relocate the receiver with respect to the D6000s.
- Connect the receiver and this product to different AC outlets.
- If the problem persists contact your dealer.

CANADA This product complies with the Class B limits laid down by the Canadian Department of Communications.
VDE This product has been designed to comply with VDE 0871/6.78 as a Class B device.
EEC This product has been designed to comply with the limits set out by the CISPR 14 committee of the IEC.
REMEMBER to switch all units off before changing any connections.

D2 No sound

- Check the AC power supply to D6000 — indicated by the [.] *STANDBY* display in the window.
- Check AC supply to other units of system.
- Check correct source is selected and that the source itself is running and producing music.
- Check interconnections are made to correct sockets.
- Check that the D6000 is not in Mute, i.e. the display does not say [Att..].
- Check volume is set, to say 35, for audibility.

If there is still no sound reset the D6000 by switching the power off, wait 30 seconds, switch back on.

D3 Sound from one channel only

- Check interconnect and speaker wiring
- Do both displays say the same thing?

D4 Channels reversed

Remember that for digital inputs left or right is determined at setup, see section 7. Default conditions set *Master* to *Left*.

- If necessary reconfigure, see section 8.

D5 Settings lost

- Check the procedures set out in section 7.
- Contact your dealer.

D6 Hum

Hum is normally only expected on analogue sources. Check the grounding of the analogue preamplifier. See the handbook supplied with your preamplifier for help.

D7 Clicks with digital sources

Clicks appearing in the sound when switched to a digital source. There are two likely possibilities:

- Clicks only occur when the source is running (playing). Due to error correction or transmission failure. First check the condition of the disc or tape. If the player is a *Meridian* 207 or 208 look for a flashing **Error** light. Check integrity of connections between the digital audio source and the D6000. Are you using good 75 ohm cable?
- Clicks occur randomly with the source selected but stopped. This may be the result of loss of lock due to gross electrical interference. Try to establish if there is an appliance elsewhere in the house causing the disturbance (e.g. central heating, pumps and fans). If necessary suppress it.

Note D6000 has a high performance power-line filter circuit.

D8 Meridian CD does not respond

- Check that all connections have been made between the *Master* speaker and the *Meridian* CD.
- Check that the D6000 is setup for controlling a *Meridian* CD. Press **CD** on the D6000 handset and ensure that the display is like **[cd.##]** and not **[Cd.##]**. Refer to section 7.5.1 and Appendix B7.

D9 204 does not respond

- Check that all connections have been made between the *Master* and the 204. If the 204 is the only other *Meridian* equipment connect the appropriate DIN-plug on the **M-lead** to the socket marked 'CD' on the 204.

- Check that the 204 is fitted with software of an adequate level. D6000 requires **[204.A]** or later. To see the version press **Mode * Set** on the 204 front-panel when the 204 is not in *STANDBY*. Version numbers count 1–9, then A–Y. If the software in your 204 is earlier than **[204.A]** your dealer will be able to obtain an up-to-date EPROM and fit it. Operating code can always be updated.
- Check that the D6000 is setup for controlling a 204. Press **Radio** on the D6000 handset and ensure that the display is like **[rd.##]** and not **[tu.##]**. Refer to section 7.5.1 and Appendix B7.

D10 201 does not respond

- Check that all connections have been made between the *Master* and the 201. If the 201 is the only other *Meridian* equipment connect the appropriate DIN-plug on the **M-lead** to the **200-Comms** socket on the 201.
- Check that the 201 is fitted with software of an adequate level. D6000 requires **[201.7]** or later. To see the version follow the instructions in the manual supplied with the 201. Version numbers count 1–9, then A–Y. If the software in your 201 is earlier than **[201.7]** your dealer will be able to obtain an up-to-date EPROM and fit it. Operating code can always be updated.
- Check that the D6000 is setup for controlling a 201. Press **Video** on the D6000 handset and ensure that the display is like **[t4.##]**. Refer to section 7.5.1 and Appendix B7.

D11 D6000s do not respond

The communications between handset and speaker could be being interrupted by sunlight in the optical comms input. Any unused optical sockets should have there covers fitted to stop this interferance.

D12 D6000s go silent when used hard

D6000 has a temperature sensing system on board that prevents overheating of the electronics. The sound will reset on cooling down. What have you been playing?

Appendix E, Calibrate mode

WARNING THIS MODE MAY CHANGE THE RESPONSE OF YOUR SPEAKER AND SHOULD ONLY BE USED BY A QUALIFIED SERVICE ENGINEER.

The process of calibration is carried out during production to alter the level of tweeter, mid-range and bass to compensate for the variability found in drive units. It should therefore only be used if a drive unit needs to be replaced.

The calibration levels are noted in two places. All three levels are noted behind the glass section of the front of the D6000 and the tweeter and mid-range levels underneath the head unit. To remove the front glass of the D6000 and read the levels you must slide the front glass section vertically upwards from the main base unit and then pull forward. Fitting the glass section is the opposite of the removal process.

To enter calibration mode:

- Power the speaker with the **Memory** key pressed

The calibration display looks like **[C. 72]**. This shows that you are in calibrate mode and that the volume level is 72. The **D1** input is selected in this mode. A number of, internally generated, test impulses are available in calibrate mode, these include:

- One sample width impulse (Red light).
- Four sample width impulse (Yellow light).
- One sample width impulse with filtering.
- Four sample width impulse with filtering.

To switch from the **D1** input to the test impulses:

- Press **Play.**

To switch between the short and long impulses:

- Press **Axis.**

To introduce the filter to the impulse:

- Press **Bass.**

The presence of the filter is indicated by the display **[#F.##]**

To set the levels of the three drive sections:

- Press **CD** for bass—range 0 to -3.
- Press **Radio** for mid—range 0 to -7.
- Press **LP** for tweeter—range 0 to -7.

Note Each step is equivalent to a -0.5 dB level drop. So to raise the level of one section you must lower the other two sections.

Note The impulse signal is still operative in this mode.

To get back to the initial calibrate mode that selects the **D1** input:

- Press **Standby.**

Once calibration is compete it is necessary to switch the D6000 off and then on again while pressing **Reset.**

This should bring you back into the normal playing state.

Appendix F, D6000 specification

Inputs

D1, D2 digital cable	IEC 958, automatic subcode extraction from digital signal
Opt 1, Opt 2 digital optical	EIAJ interface as D1, D2 Subcode extracted from digital signal
Communications	Systems 1, 2 and Local for *Meridian* systems

Outputs

D OUT digital audio	IEC 958, selected copy of input signal
Communications	Systems 1, 2 and Local for *Meridian* systems

Power amplifiers

Tweeter	75W mean power
Midrange	75W mean power
Bass	2x 75W mean power
Acoustic	typically > 115dB spl @ 1m

Distortion

At any settings below clipping	<0.02% thd
typically	<0.01%

Noise

Absolute S/N any channel	<-110dB CCIR
Acoustic	<20dBspl @ 1m

Digital processing

- Automatic synchronisation to input signal.
- Automatic identification of frequency to enhance lock-in.
- Proprietary PLL for lowest jitter, <100pS peak word—word.
- CRC validity checking of input signal
- Error correction and concealment
- DAC used in dual differential *Bitstream* mono high-precision mode to achieve 16 bits precision.
- Passive DAC filter for highest quality sound.
- Processing and display of sub-code.
- Digital filtering for tweeter, mid range and bass.
- Digital signal processing for balance and volume control.

Loudspeakers

Bass	4x 160mm doped paper bass
Mid range	160mm polypropylene high efficiency mid range
Tweeter	Boothroyd Stuart 25mm piston, Al dome, silver coil

Cabinets:

Bass	Constructed from 20mm MDF.
Head	Heavy multi braced Finnish fine birch plywood. In-
ternal volume 8.5 litres	

Power required

Voltage	100—125V AC 50—60Hz, or: 200—250V AC 50—60Hz
Consumption	20VA *STANDBY*, 600VA max.
Dimensions	280mm x 1360mm x 430mm, W x H x D
Weight	130kg heavy

Master setup

ROOT MENU

Channel	Left [L.]	Right [r.]	
Slave uses Optical?	Yes [?.OP.]	No [?]	

SYSTEM 1 setup, **red** light in window

SYSTEM MENU

D6000 [6. ??]	Pre [1. ??]	CD [7. ??]	None [n. ??]	Vol
Start on system 1?	Yes [? S.]	No [?]		Play
Protocols	Open [? ?]	Use [? U?]	Close [? n?]	Stop

System 1 SOURCE MENU 1		*SOURCE MENU 2*	*SOURCE MENU 3**	Any input
Sources	*Display types*	*D6000 input*	*System*	
CD	[cd.]	[cd.]	[cd.]	L, Nxt, Prv
Radio	[rd.]	[rd.]	[rd.]	L, Nxt, Prv
LP	[LP.]	[LP.]	[LP.]	L, Nxt, Prv
Tape1	[t1.]	[t1.]	[t1.]	L, Nxt, Prv
Tape2	[t2.]	[t2.]	[t2.]	L, Nxt, Prv
Video	[t4.]	[t4.]	[t4.]	L, Nxt, Prv

SYSTEM 2 setup, **yellow** light in window

SYSTEM MENU

D6000 [6. ??]	Pre [1. ??]	CD [7. ??]	None [n. ??]	Vol
Start on system 2?	Yes [? S.]	No [?]		Play
Protocols	Open [? ?]	Use [? U?]	Close [? n?]	Stop

System 2 SOURCE MENU 1		*SOURCE MENU 2*	*SOURCE MENU 3**	Any input
Sources	*Display types*	*D6000 input*	*System*	
CD	[cd.]	[cd.]	[cd.]	L, Nxt, Prv
Radio	[rd.]	[rd.]	[rd.]	L, Nxt, Prv
LP	[LP.]	[LP.]	[LP.]	L, Nxt, Prv
Tape1	[t1.]	[t1.]	[t1.]	L, Nxt, Prv
Tape2	[t2.]	[t2.]	[t2.]	L, Nxt, Prv
Video	[t4.]	[t4.]	[t4.]	L, Nxt, Prv

SYSTEM LOCAL setup, **red** and **yellow** lights in window

SYSTEM MENU

D6000 [6. ??]	None [n. ??]		Standby
Start on system local?	Yes [? S.]	No [?]	Vol up
			Play

System local SOURCE MENU 1		*SOURCE MENU 2*	Any input
Sources	*Display types*	*D6000 input*	
CD	[cd.]	[cd.]	L, Nxt, Prv
Radio	[rd.]	[rd.]	L, Nxt, Prv
LP	[LP.]	[LP.]	L, Nxt, Prv
Tape1	[t1.]	[t1.]	L, Nxt, Prv
Tape2	[t2.]	[t2.]	L, Nxt, Prv
Video	[t4.]	[t4.]	L, Nxt, Prv

Slave setup

ROOT MENU

Channel	Left [L. S.]	Right [r. S.]
Blank display?	Yes [?b ?S.]	No [? ?S.]

*** Note** only available for cd, rd and dr display

Key

Reset
Left
Stop
System
Standby
Vol
Play
Stop
Any input
L, Nxt, Prv
System
Res*Stby
Vol
Play
Stop
Any input
L, Nxt, Prv
System
Standby
Vol up
Play
Any input
L, Nxt, Prv
Key
Reset
Left
Axis