

MERIDIAN 222 USER MANUAL

1 Introduction

Congratulations for choosing a *Meridian* Multiroom system!

We are confident that it will bring you years of listening pleasure, and since it is fully prepared for the digital era, you can listen in the comfort of knowing that these products will last far beyond changes of fashion.

If you have any queries regarding the application of this product remember that your *Meridian* dealer has been selected for his expertise and you should refer to him in the first instance.

We have tried to make this unique product as simple to use as possible; it will bring you a new dimension of listening pleasure.

1.1 Description

You will find it simpler to understand the processes in the 222 if you consider it to be a combination of the following functions:

- Analogue preamplifier to select between three analogue inputs.
- Remote control for all functions including volume, mute, sources and various display options.
- Controlling computer.
- 200-Series communicator.
- Optional internal volume control with 211.

2 How to use this manual

2.1 Layout of manual

This manual is laid out in numbered sections, the main topics covered are:

- Introduction
- General background, section 3. This describes the main ideas and terms of Multiroom.
- Operation, section 4.

2.2 Scope of this manual

This manual is intended for owners and users. It provides information required to operate the 222 via an input device such as *Meridian* 212, 213, 220 or 221.

It is assumed that your dealer has installed and configured the 222 to your requirements. It is not intended that the user of this product should feel it necessary to be able to programme it. Programming is a one-time event that is controlled by the details of your installation.

NOTE This is not the only information available about the 222. Technical information is available to retailers and installers in the following *Meridian* publications:

- 222 Programming Manual, supplied.
- *Meridian* Multiroom Technical Reference Manual
- *Meridian* 222 Service Manual
- *Meridian* 221 Service Manual

NOTE This Manual does not attempt to cover any issues of installation, nor does it cover issues of local electrical regulations or safety codes. You should satisfy yourself of the competence of the installer.

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 222 or another *Meridian* product; e.g.

- **Sensor**. This refers to the infrared sensor in the glass display window.
- Press **CD**. This refers to a key on the front panel of a 221 or 209 handset marked 'CD'.

Text between square brackets is used to illustrate a display or cue in the front display window of a 221 or 213 that is connected to the 222. e.g.

- [1. cd. 27] is the display for System 1 selected, CD source and volume number 27.

Comms refers to the 200-Series inter-product communication system used between all *Meridian* 200 and Multiroom components.

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**. 'In *STANDBY*' would mean after pressing **Standby**.

3 General background

3.1 Systems and sources

A *Meridian* Multiroom installation is capable of handling more than one signal at a time.

The basic format of the *Meridian* Multiroom concept allows two signals to be distributed between all the rooms you chose to 'wire up' at any one time.

These signals need not always be the same, the signals that are distributed are those you are listening to, and will have been selected by a Multiroom *controller* like a 201, 202 or 207.

These signals will of course have been selected from the available *sources* such as CD, LP, Radio, Tape, Video and so on.

The two distributed signals we refer to as **System 1** and **System 2**.

In the simpler Multiroom systems these **System 1** and **System 2** signals are in fact a combination of a *source* and a volume level – we call this a *volume number*. In more advanced systems, such as those incorporating 222 with internal volume control modules the selected signals are distributed at fixed volume on **System 1** and **System 2**.

Since we offer remote control of the installation, **System 1** is actually a term used to describe a distributed audio signal (System 1 audio) and an associated control signal (Comms1).

In using the *Meridian* Multiroom installation it will be useful to understand these ideas and to have some form of picture from your dealer how the cabling is organised in your home.

Read the above again and make sure that you are clear what the the following terms mean.

- Systems
- **System 1, System 2**
- Sources
- Controller
- Volume number

3.2 Systems and rooms

In a *Meridian* Multiroom installation the music can be fed to virtually any number of rooms or zones. We distinguish between rooms and zones in the following way:

- A *room* is a listening area, it is also closed to infrared light and therefore is also a single remote command area. A *room* is an entity in terms of listening.
- A *zone* is a collection of *rooms* that are cabled in such a way that exactly the same thing is heard in each. Normally adjusting one room of a zone automatically adjusts the others.

Each *room* or *zone* can be connected at the installation time so that it 'belongs' to **System 1**, **System 2** or both. By planning this assignment you can have two separate zones of your house set up on a permanent basis and this is simple to use and understand.

If a room or zone is connected to both **System 1** and **System 2** then you have to have a way of selecting between them, this is where the 222 comes in.

222 gives you a way of doing the following things:

- Muting the room or zone it controls independently of the rest of the system.
- If a 211 module is fitted, of having independent volume level from the rest of the installation.
- Selecting which **System** you will listen to and/or control. (System 1, 2 or Local).
- Selecting the *source* you will listen to on that **System**.
- If the *source* is a *Meridian* one, it will control it.

3.3 System Local

In the last section we referred to **System Local**. 222 gives you the chance to listen to and control local sources as well as the two distributed signals **System 1** and **System 2**.

A local source could be a video recorder, or it could be something like a *Meridian* 207 CD player with other sources, e.g. turntable, connected to it.

3.4 Protocols

The *Meridian* Multiroom installation allows for protocols or rules to be programmed into 201, 202, D600 and 222. These rules define the way a listener in a remote room or zone can be permitted to adjust the sources or indeed the signals on **System 1** or **System 2**. There are four options available, two of them relate to a 202, and all apply to D600 or 222.

3.4.1 Open

This is a universal parameter. A system (1 or 2) is *OPEN* if commands arriving from the other system are allowed to be used in a way that could interfere with it.

System 1 or **System 2** or both can be adjusted by the user to be independently *OPEN* or *CLOSED*.

3.4.2 Closed

This is a 202 parameter. *CLOSED* is the opposite of *OPEN*. See the Appendix in the 201 user manual.

3.4.3 Not controllable

The *NOT CONTROLLABLE* hereafter referred to as the *n* option is a D600 or 222 parameter that gets set when the product is programmed by the dealer. When a system is declared as *n* you can listen to that system, but you are not free to make any changes to it by way of:

- source
- volume
- control of sources (retune, stop etc.).

3.4.4 In Use

The *IN USE* hereafter referred to as the *U* option is a D600 or 222 parameter that gets set when the product is programmed by the dealer. When a system is declared as *U* you can listen to that system, but you may not control sources that are in use by the other system. You may of course be able to switch to the other system to take control!

4 Operation

This section describes how you operate the 222 when it is used with a 221 Smart Wall Panel. It then describes the differences and additions that come from using the 209 system handset.

- If the 222 has a 212 input device rather than a 221 then the commands are identical to the 209+221 situation.
- If the 222 has a 220 input device rather than a 221 then there are fewer keys available but these operate identically to the 221. When a 220 is used the 222 must be programmed for permanent connection to System 1 or System 2 since there is no means of switching.

- If the 222 has a 213 input and display device rather than a 221, then the commands are identical to the 209+221 situation, as are the displays.

NOTE This section describes the full possibilities of the 222, remember that at installation time your dealer will programme this product according to the cabling, your sources and your requirements.

If at any time the 222 does not respond in the way these operating instructions suggest, the programming will be the reason and this situation is probably normal.

NOTE If at any time you see the display:

[nA.] this means that the source or display type you have requested has been programmed to be **NOT AVAILABLE**.

NOTE If at any time you see the display:

[LOC.] this means that the source has been locked out by the protocol system. See section 3.4.

NOTE If at any time you see the display:

[Err.] this means that the command you have issued is in error. An example could be:

- Requesting track 0, or a track beyond 'Max. tracks' for the loaded disc in a 207 CD player.

4.1 Convenience switching

Unlike the stand-alone *Meridian* 200-Series products, the Multiroom components (including D600) use 'convenience switching'.

Convenience switching means that commands you issue are directed only to:

- The current system
- The current source.

Here 'current' means the one you are listening to.

Hence the keys marked **Play**, **Stop**, **Next**, **Previous** and **Display** are conveyed to the current source product. For now this is limited to the *Meridian* 204 and 207, but there can be future expansion.

4.2 Sources and Systems

When the 222 is first powered-up it will be in the **STANDBY** condition. This is indicated by the **STANDBY** [.] display, and a green light behind the **Off** key of a 221.

To bring the 222 out of **STANDBY** press:

- Any of the source keys. These are named **CD**, **Radio**, **LP**, **Tape1**, **Tape2** or **Video**.

NOTE the following:

- The sources connected to these keys do not have to be the same type as the source-key legend.
- e.g. A second CD player could be connected to **Tape2**. At installation the dealer would programme the 222 telling it that the source called **Tape2** was a CD player.
- The source key names on 222 relate to the same named inputs on a 201, 202 or 207.

Try now pressing **CD**. The 221 will respond with a display like [1. cd. 32] What does this mean?

- 1. in the first position tells you that the 222 is currently connecting to **System 1**, this is confirmed by the **red** light in the window of the 221 or 213.
- **cd.** tells you that you selected **CD**.
- **32** in the right-most position of the display is the volume number. In all the following examples we will use 32 but the number can be anywhere between 1 and 64.

You may not see this exact display for the following reasons:

- 1. will appear only if at installation time **System 1** was chosen to be the **Start System**. Whenever the 222 comes out of **STANDBY** it will start with the **Start System**. You could therefore see a display that starts with 2. or L..
- **32** The 222 will come out of **STANDBY** at the volume number it was at when you switched it off, or at the current volume number of other rooms on the current system.

Experiment now with the controls:

- Press **LP** and see the display [1. LP. 32]
- Press **Radio** and see the display [1. rd. 32]

NOTE if the controller in the system is a 207 rather than a 201 the display will be of the form:

- [1. Li. 32] Here 'Li' tells you that the input which has been engaged is the **Line** input of the 207 which is normally used for radio. This **Line** input is the one that would be selected by pressing **Line** on a 209.

- Press **Tape1** and see the display [1. t1. 32]

NOTE if the controller in the system is a 207 rather than a 201 the display will be of the form:

- [1. t3. 32] Here 't3' tells you that the input which has been engaged is the **Tape** input of the 207 which is also the one that would be selected by pressing **Tape3** on a 209.

- Press **Tape2** and see the display [1. t2. 32]

- Press **Video** and see the display [1. t4. 32]

NOTE if the controller in the system is a 207 rather than a 201 then the display will show **Tape2** and **Video** not available.

If the system is correctly powered up and working you should be able to hear some of these sources.

- Go back to **CD** by pressing **CD**.

To change between systems:

- press **System**. The 221 will display [2. cd. 32], and the **yellow System 2** light will show in the window.
- Press **System** again and see the display [L. cd. 32], and the **green System Local** light in the window.
- Press **System** again to return to **System 1**.

NOTE it may not be possible to switch to all systems if they have been setup as non-existent during installation.

4.3 Volume and Mute

The *Meridian* 200-Series uses a unique 64-step electronic volume control system that gives a much superior sound to mechanical controls. Each volume step is 1.25dB and subjectively we judge seven steps to be a doubling of loudness.

- To change the volume press the volume up or down **Yellow** keys. Notice the volume number in the right of the window count up or down.

To mute the sound in the room:

- Press **Mute**. A red light will show behind the **Mute** key indicating that the 222 has muted its output.
- To restore, i.e. unmute the sound press **Mute** again.

NOTE There is another kind of mute display that you may see, in this form:

- [1. Att.]. This tells you that elsewhere in the house the 201 or 207 controller has been muted directly. Depending on the protocols you may be able to release this mute by:
 - Pressing **Mute**.

4.4 Standby and Off

The 222 recognises two states of being 'off.'

- **STANDBY** silences the room or zone controlled by the 222 but does not disturb the rest of the Multiroom installation. In particular sources are left running.

To achieve **STANDBY**:

- Press **Off**.
- To come back press any source key.

If you wish, you can put the whole Multiroom installation into **STANDBY** from a 222 by:

- Pressing **Off** for a few seconds until you see the display [OFF].

The *Meridian* sources and 201 or 207 controllers will now be in **STANDBY**.

The sources will come out of **STANDBY** when you turn the 222 on next time.

4.5 Using a 207 CD player

A 207 can be used as a Multiroom controller for installations using **System 1** and **System Local**. In any case the 207 is ideally chosen as the CD source for a Multiroom installation because the 222 can address and control the 207. In fact a 222 can independently control up to three 207 CD players in different parts of the house.

To start the 207 playing a disc from the 222:

- Press **Play**

To move on to the next track:

- Press **Play** again

To stop the CD:

- Press **Stop**

To select a particular track on the CD:

- Press **Next** or **Prev**.

The 221 will respond with a 'select display':

- [S. # 32] Where # is a track number. The display could also be [S. ## 32] where ## is a track number. The 'S.' indicates select.

In CD you have to act on a selection, or it will go away after a few seconds. This is just the same as operating the 207.

Go to a selected track with **Play**. The 222 will immediately respond by changing its display from:

- [S. # 32] to:
- [S. # 32]

When the 207 has found the track it will play.

4.6 Displays with a 207 CD player

Start a disc playing in the 207. The 222 is able to display either:

- System, input and volume like [1. cd. 32] or:
- Press **Display** and see [cd.## 32] where ## is the current track number.
- Press **Display** again and return to [1. cd. 32]

There are two displays for CD as shown. Go back to the track display with **Display**. Now press **Stop**. The display will now change to [--## 32]. This display says that the disc is stopped, and that the loaded disc has ## tracks.

You may see a display like [---- 32]. This means that the 207 is not playing and that the 222 does not know how many tracks there are – probably because the 207 does not know either.

When the 222 has a valid 'Max tracks' number, the **Next** and **Prev** keys will not count beyond that number.

NOTE If you select a track beyond 'Max tracks' using a 209, then the 222 will respond with the display [Err. 32].

NOTE there is one other 207 CD display that is relevant and it takes the form:

- [cd. P. 32] where 'P.' means paused. This is provided to explain to you why you may not be able to hear the CD when you expect to. If you use a 209 its **Pause** key will produce this message (if you have the track display up). It may also result from someone pausing the CD player from another room, or directly acting on the 207.

The 222 automatically *unpauses* a 207 if you press **Play** on the 221.

4.7 Using a 204 FM tuner

A 204 is ideally chosen as the FM source for a Multiroom installation because the 222 can address and control 204. In fact a 222 can independently control up to three 204 tuners in different parts of the house.

To select a particular preset station on the 204:

- Press **Next** or **Prev**.

The 222 will respond with a 'select display':

- [S. # 32] Where # is a preset number. The display could also be [S. ## 32] where ## is a preset number. The 'S.' indicates select.

The preset numbers will count like a 204, i.e. 1–6, then 11–16, then 21–26 and back to 1.

In *RADIO* you have the choice of waiting a second for the 222 to act on a selection, or if the number selected is in the range 1–6 it can be immediately enacted by pressing **Play**. The 222 will immediately respond by changing its display from:

- [S. # 32] to:
- [S. # 32]

When the 204 has found the preset you will hear it.

An alternative method of changing stations is to press **Play** without having selected a number. When you do this the 204 will move on to the next preset number. This is the only way available from a 220.

4.8 Displays with a 204 FM tuner

The 222 is able to display either:

- System, input and volume like [1. rd. 32] or:
- Press **Display** and see [P. ## 32] where ## is the current preset number.
- Press **Display** again and see [F.###.# 32]. Here 'F.' stands for frequency, and ###.# is the tuned frequency in MHz.
- Press **Display** again to return to [1. rd. 32].

There are three displays for radio as shown.

4.9 Display in general

At this time displays relating to other sources are not supported but if another *Meridian* source is released an upgrade to the software will also be available.

- If you press **Display** on a source that is not a 207 or 204 you will see [n.A.] error message. You may also see this message if the source should be a 204 or 207 and it has been removed from the installation or powered down.

NOTE Remember that displays are available for source *types* rather than input key names. Thus for example, if at installation the 222 had been programmed to know that you had a 207 CD player connected to the **Tape2** input of a 201 or 202 controller, then its display information will come up when you press **Display** from the System, **Tape2** display [1. t2. 32].

4.10 Use with 209

There are a few differences when a 209 is used to operate a 222 via one of the possible infrared input devices.

- For a 207, **Repeat**, **Phase**, **Store**, **Cancel**, << and >> do not function via the 222. They do of course work directly to the 207.
- **Preset** and **Track** are irrelevant. The 222 directs commands according to the current source.
- Tracks on a 207 CD or preset stations on a 204 can be entered as numbers.
- * takes on the function of the **System** key of the 221.
- **Standby** takes on the function of the **Off** key of a 221.

4.11 Sources belong to systems

In order to understand exactly how to drive your system, or maybe to understand how to get the best out of it for your way of life, it would be helpful if you understood this section.

The concept that sources belong to systems is best explained by an example. If you have a Multi-room installation that allows access to both the **System 1** and **System 2** outputs of a 202, you could have one 207 CD player attached to the CD input of the 202.

When you listen to, or control this CD player from a 222, in one sense it is irrelevant whether or not you access it via **System 1** on the 222 or via **System 2**. In both cases (protocol permitting) you will hear the CD player.

In this circumstance the two **System** outputs of the 202 are intended to provide differences between rooms or zones. For example you could be listening to this CD player on **System 2** with a display like [2. cd. 32] while another room was listening to the radio.

You could confirm this by pressing **System** until you saw the **System 1** light and a display like [1. rd. 21].

You may have a second 207 in which case the choice presented to you by your dealer would be whether each player belonged *only* to one **System**, or whether they could be shared.

How is this achieved?

To have separate CD access the 222 could be programmed so that, for example, it only knew of the existence of one of the 207s.

We could have told the 222 that there was only one CD player, that it belonged to **System 2** and that it was accessed with the **Tape2** key.

From this room pressing **CD** with the **System 2** light on would give the [n.A.] message, whereas pressing **Tape2** would get the display [2. t2. 32]. From here you could **Play**, **Stop** select or display this CD player.

Of course the other 207 is available if you are able to go to **System 1** with a display like [1. cd. 32]. For complete separation you could ask your dealer to programme the 222 to not know of the **System 1** CD player, or even not to go to **System 1**.

The Multiroom system addresses one of the CD players on the **Comms1** and the other on **Comms2**.

You could also ask your dealer to set this up so that both CD players were available everywhere all the time. Now for example although the 222 knows that one 207 is 'talked to' via **Comms1** and the other is 'talked to' via **Comms2**, it is also smart enough to let you listen to it from both the **System 1** and **System 2** settings of the 222.

Another example of using the 'belonging' and 'existing' concepts of the 222 would be to tell a 222 that a 207 was not controllable.

The 222 will now allow people in the room or zone it controls to 'listen in' on a CD by pressing CD, but they will not be able to control it or have access to display information.

If you have three 207 CD players you can have independent control of all three by having one connected as a local CD to the **Local** system of a 222.

5 Maintenance

5.1 Cleaning

Switch off the Multiroom installation before doing anything more than dusting or vacuuming a 222.

The front of 212, 213 or 221 is glass set in a plastic frame. To clean the plastic do not use abrasive cleaners or solvents. A barely damp chamois leather is recommended.

No routine maintenance of the electronics is required. There are no user-serviceable parts inside the 222.

6 Service

There are no user-serviceable parts inside the 222. Should the unit need service, contact the dealer who supplied it or, in case of difficulty write to:

- In the UK, Boothroyd Stuart Ltd, 13 Clifton Road, Huntingdon, Cambridgeshire, PE18 7EJ.
- Outside the UK contact the importing agent for the territory. A list of *Meridian* agents abroad is available from the above address.

The owner is responsible for the Product during transit therefore we recommend that you retain the original packing.

For on-site service we make available service EPROMS and EEPROMs so that where possible setup information will not be lost.

7 Guarantee

The 222 is guaranteed against defects in material and workmanship for 12 months from the date of purchase.

The guarantee is void if the product has been subject to misuse, accident or negligence, or has been in any way modified without Boothroyd Stuart Ltd written authorisation. Attempted servicing by unauthorised people may result in loss of guarantee.

Labour and carriage charges are not covered unless by local agreement.

When seeking service under guarantee, it is necessary to produce dated proof of purchase.

Outside the UK local warranty liability is restricted to equipment purchased within the territory. Our agents abroad are only under contractual obligation to service under guarantee equipment sold through them. They are entitled to make a non-refundable charge for any service carried out on equipment not supplied through them.

This guarantee does not limit your statutory rights within the UK.

8 221 Keys

In the following list keys and expected displays are shown. N.B.## means volume number ##, ? means system number and xx. is a source key.

Yellow key volume up and down. [?.xx. ##]

Mute mutes, demutes the sound. There is a red light behind the key when muted.

System Rotates between **System 1, 2 and Local**

CD CD source [?. cd. ##]

Radio radio tuner [?. rd. ##]

LP turntable source [?. LP. ##]

Tape1 First tape [?. t1. ##]

Tape2 Second tape [?. t2. ##]

Video Video source [?. t4. ##]

Off Puts 222 into *STANDBY*. [.]

Off Pressed for 3 seconds puts whole installation of *Meridian* products into *STANDBY*. [OFF]

Play When *CD* starts 207 playing or moves to next track.

Play When *RADIO* actions preset selection on a 204. [S. #].

Play When *RADIO* moves to the next preset selection on a 204 if you do not select a number with **Next** or **Prev**.

Stop Stops 207 playing if you are listening to it.

Next When *CD* brings up the track select cursor [S. #]. (Engage with **Play**)

Next When *RADIO* from a 204 brings up the preset selector [S. #]. (Engage with **Play** or wait one second).

Prev As **Next**

9 220 Keys

The following lists the controls of a 220.

V+, V- volume up and down.

CD CD source

Radio radio tuner

Tape1 First tape

Video Video source

Play When *CD* starts 207 playing or moves to next track.

Play When *RADIO* moves to the next preset selection on a 204.

V+, V- volume up and down.

Off Puts room into *STANDBY*.

Off Pressed for 3 seconds puts whole installation of *Meridian* products into *STANDBY*.