

## **MERIDIAN 603 USER MANUAL**

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## 1 Introduction

The *Meridian* 603 Control Unit is part of the 600-Series of advanced high fidelity equipment. Used in conjunction with other components in the range, it can offer the music lover much more than just very high quality audio.

Because the 603 is such a sophisticated device, you are advised to read through this whole manual before using it for the first time, particularly if you are using it with other *Meridian* components. However, we have given a lot of attention to making the operation of the unit as intuitive as possible, so that those of you who are familiar with high fidelity equipment and who cannot wait to get your 603 working will be able to get immediate results.

In purchasing a *Meridian* 603 Control Unit, you have acquired a refined piece of equipment which will continue to bring you listening pleasure for many years. This manual will enable you to get the most from it.

## 2 About this manual

A number such as 603 refers to a component in the *Meridian* 600-Series of audio equipment, unless otherwise indicated, e.g. 'the socket marked 600 COMMS'.

Whenever a key name is printed in **bold** typeface, it means that you should press this key. When a series of key strokes are required, e.g. press **Copy** then press **Source**, the key names will be separated by a hyphen, i.e. **Copy - Source**. If the key name is not in bold type, it indicates that the course of action is not required at present, e.g. 'if you want to change the display, press Display' means you can do this, but it is not essential as part of the operation currently being discussed.

In some instances, a key and the status of the equipment share the same name, e.g. the Standby key and the *standby* state. For absolute clarity, the key name will always start with a capital letter and the status will always be indicated by the use of italic type.

## 3 About the 600-Series

The *Meridian* 600-Series of high fidelity equipment is probably the most sophisticated family of hi-fi products available. It has been developed to operate at a variety of levels, from the simplest conventional single-room hi-fi to a whole-house music-management system. The 600-Series is also fully compatible with the famous 200-Series. In addition, the system can be further enhanced by the use of one or more pairs of *Meridian* D600 or D6000 Digital Loudspeakers.

The 603 Control Unit is very advanced. Its circuitry has been carefully optimised to provide the highest quality of sound available.

Despite its high performance, each piece of equipment in the 600-Series has been planned for ease of use, with microprocessor control being applied in the range to simplify operation. We have also paid great attention to the appearance of the units, and much care has been taken in the selection of the materials used in the construction of the components to ensure that your *Meridian* 600-Series equipment will look and sound as good in the years to come as it does now.

## 4 Unpacking the 603

On opening the carton, you should have found the following parts:

- *Meridian* 603 Control Unit
- Power cord
- Electrical interconnect 75ohm, 0.7m
- Optical communications interconnect 0.7m
- This manual

If any of these items are missing, please contact your dealer. We suggest that you retain the packing carefully as it provides maximum protection for the unit in transit.

## 5 Accessories

The following optional accessories are available from your dealer:

- 209 Remote control unit
- F-lead
- D-lead
- Power cord (Europe)
- Power cord (USA & Canada)

In case of difficulty, they can also be ordered directly from Boothroyd|Stuart whose address is on the title page of this manual.

## 6 Installing your 603

### 6.1 General precautions

Before carrying out any installation, you should first ensure that the 603 is marked with the correct voltage for your local AC supply. If this is not the case, do not proceed with these instructions, but contact your dealer.

As a general rule, you should not make any connections to the 603, or to any other component in your system, whilst the AC power supply is connected and switched on.

### 6.2 Connections

There are two types of connection that need to be made to the 603, audio and communications. Audio connections need to be made to every other component in your system. Communication connections have to be made to most of the other *Meridian* components in your system in order for them to act as one system. The connections to your 603 are very important and care should be taken in deciding which connections to make.

To allow immediate results to be obtained the 603 is factory set to respond in the following way:

Source display	Input
CD	D1
Radio	Radio
LP	LP
Tape	Tape
Video	Video
DAT	D2

The other two inputs, O1 and O2, are not available in this setting and further reading of the customising section (Appendix A1) of this manual will be needed to implement them.

### 6.2.1 602 CD transport connection

For digital audio:

either

- connect an optical link between one of the 602 sockets marked 'OPTICAL OUTPUT EIAJ' and one of the sockets marked 'OPTICAL INPUTS O1 O2' on the 603.

or

- connect the electrical interconnect supplied between the 602 socket marked 'DIGITAL OUTPUT' and one of the sockets marked 'DIGITAL INPUT' on the 603.

It is best to use the D1 input of the 603 as this is already set up for CD connection.

For communication purposes:

- connect the optical communication link supplied with the 603 to the 602 CD transport unit (sockets marked OPTICAL COMMS IN OUT) and the 603 (sockets marked OPTICAL COMMS IN OUT). The optical connectors marked with blue bands should always go to 'OPTICAL COMMS IN' on both 602 and 603 with red bands plugged into 'OPTICAL COMMS OUT' sockets.

### 6.2.2 Compact disc player connection

Any compact disc player with either electrical or optical digital output can be connected to the 603 on one of the four digital inputs. When using a *Meridian* CD player other than the 602:

- connect the digital audio as described in 6.2.1
- connect a D-lead between the 603 (socket marked 600 COMMS) and the CD player (socket marked 200 COMMS)

This lead will allow full use of the *Meridian* 209 Remote Control Unit.

### 6.2.3 Tuner connection

A radio tuner can be connected to the Radio input of the 603. When using the *Meridian* 204 FM tuner:

- connect the audio output of the 204 to the 'Radio' input of the 603
- connect an F-lead between 603 (socket marked 600 COMMS) and 204 (socket marked 201/2)

### 6.2.4 Tuner + CD connection

The addition of a *Meridian* CD player to this system is achieved using the lead supplied with the player:

- connect the 'DIGITAL OUTPUT' of the *Meridian* CD to the required input of the 603
- connect the lead supplied with the CD between 204 (socket marked CD or 207) and the CD player (socket marked 200 COMMS)

This lead will allow full use of the *Meridian* 209 Remote Control Unit.

### 6.2.5 D600 connection using a 602

- Connect the sockets marked 'FIXED OUTPUT' on the 603 to either analogue input on the D600s only from Dig 4/9
- Connect the socket marked 600 COMMS on the 603 to the M-Lead supplied with the D600s. Following the instructions in the D600 manual treating the 603 as a 201

The D600s are fully-programmable and you should consult your manual before deciding which input to use. If you have any doubts your dealer will be able to help you.

If you are using a 602:

- Use optical link between 602 + 603 as described in 6.2.1
- Connect D600 M-lead to the 602 (socket marked 600 COMMS)
- Connect digital audio directly from the 602, see 602 handbook

If you add a 204 to this system:

- Connect the spare plug on the M-lead to the 204 (socket marked 201/2)

The M-lead provided with D600s has two different plugs at one end and care should be taken not to force any connections as this will, at best, result in an inoperative system.

### 6.2.6 D600 + 204 + 200-series CD

- Connect an F-lead between 603 (socket marked 600 COMMS) and 204 (socket marked 201/2)
- Connect M-lead between D600 and 204 (socket marked CD or 207)
- Connect the other plug on the M-lead to the CD (socket marked 200 COMMS)

The M-lead provided with D600s has two different plugs at one end and care should be taken not to force any connections as this will, at best, result in an inoperative system.

The digital output from the CD player can be connected to the D600s using the phono plug of the M-lead.

Analogue connections made between the 603 and the other components in your system are at your discretion.

### 6.2.7 D6000 connection

The D6000s have no analogue inputs and therefore cannot be connected directly to the 603. For further information see the D6000 user manual.

### 6.2.8 Turntable connection

A grounding terminal is fitted to the back of the unit to ground the turntable or tone-arm where necessary.

603 Digital Preamplifiers leave the factory with the phono module set for Moving Magnet cartridges. If you wish to use a Moving Coil cartridge it will be necessary to contact your dealer.

### 6.2.9 Video connection

The audio output from a video recorder or any other line-level source can be connected to the Video sockets.

### 6.2.10 Tape connection

DAT or cassette recorders can be connected to the Tape In and Out sockets.

### 6.2.11 Headphones

There is a standard 1/4" stereo headphone outlet on the back panel designed for high impedance headphones.

## 7 Siting

The 603 should not be placed on top of a power amplifier and if moving coil LP input is used not underneath or on top of a 602 or other *Meridian* CD.

You should avoid sites where it would be subjected to direct sunlight or where it is near a heat source, e.g. a central heating radiator, or where the equipment could be subjected to strong magnetic radiation, e.g. very close to a television, or where connecting cables may be subject to, or cause, interference.

In common with all digital products, the 603 emits some radio-frequency signals. For this reason, try to keep all mains cables and network leads away from signal cables, which includes audio, antenna and loudspeaker cables. Some time spent laying out the cables carefully will repay you with the best possible performance later.

## 8 Setting up the 603

### 8.1 Checking

Before turning on the power, check once again that you have made all the connections correctly and that you have not disturbed any existing connections in the process.

### 8.2 Switching on

Turn on the power switch at the rear of the unit. A small point on the display should now be illuminated [ . ] and the legends light up.

### 8.3 If there are no lights

Check the integrity of your power connections, including any fuses in your supply. If the Standby point is still not illuminated and the rest of your system is functioning, contact your dealer for help.

### 8.4 Standby

The entire 600-Series is designed to be left connected to AC power at all times.

This *standby* state ensures that the components operate at maximum efficiency from the moment you start listening. It is perfectly safe and consumes a negligible amount of power. However, when you are not going to use your system for an extended period of time, e.g. when you are going on holiday, we would advise you to disconnect it from the AC power supply.

## 9 Basic operation of 603

### 9.1 Selecting a source

- press **Source** until the input you require is indicated
- release **Source**

### 9.2 Putting the 603 in standby

*either*

- press **Off** on the 603

*or*

- press **Standby** on the 209

### 9.3 To adjust the volume level

You can adjust the volume from the front panel of the 603 or from the 209 Remote Control unit.

To increase the volume:

*either*

- press the **Right Hand** volume key on the 603

*or*

- press the **Top Red** key on the 209

These keys are called 'Volume Up'.

To decrease the volume:

*either*

- press the **Left Hand** volume key on the 603

*or*

- press the **Bottom Red** key on the 209

These keys are called 'Volume Down'.

As you adjust the volume setting, the display will change to show the current source and volume level, for example [CD 35] would indicate that you were listening to a Compact Disc at a volume setting of 35. The volume level displayed will count up or down and ranges from [CD 1] to [CD 64]. Each step is 1.25dB.

Subjectively one judges a volume increase of 9dB to be equivalent to a doubling of loudness so each volume number represents about a 15% change in loudness, seven or eight steps to double loudness.

If a CD is playing, the display will then revert to your selected information.

#### 9.4 To mute the sound

The mute facility cuts off the sound by setting the volume level to zero.

To mute the sound:

- press **Mute** on either the 603 or the 209

The display will change to [**Mute ##**] and the output will be muted.

To restore the sound:

either

- press the **Mute** key on either the 603 or the 209 a second time

The volume level will revert back to normal and the display will be restored.

or

- use the volume keys on either the 603 or 209.

Volume setting 11 will be selected and then normal volume control reverted to.

#### 9.5 To make a tape recording

The Copy key controls the tape output:

- press **Copy**

The display will show [**Copy OFF**] indicating the normal situation of no tape output signal.

To copy an input:

- press **Copy**
- press **Source** until the source to be copied is indicated
- release **Source**

The display shows, e.g. [**Copy CD**]

After a short time the selected input will be copied to the tape output (in this case CD). You may select any other source to listen to while in Copy mode.

To check which input has been set to record, a copy review is available:

- press **Copy**

The display will show [**Copy ##**] where ## denotes the input that has been selected. To remove the review facility:

- press **Copy** or wait for a short time

When recording is complete, we advise you to mute the tape output:

- **Copy - Mute**

Will mute the tape output.

The tape output continues even in *standby* so long as Copy mode is set.

If Copy is pressed accidentally wait for the normal display to revert.

#### 9.6 To change the display

The 603 has several display modes for CD sources. Pressing the Display key while listening to CD will cycle the display through four states:

- Track (Index) number
- Elapsed time for the entire disc
- Elapsed time for the current track (note that when 'counting in' to the start of a track, the display is preceded by a minus sign)
- Display and legends off

The track number display will consist of one or two digits, for example, [**CD 11**].

However, when a disc contains index points in addition to the tracks, the display will change to show the current index number, for example a display which read [**CD 11.3**] would indicate that track 11, index 3 was currently being played, or had been selected. You should note that the 603 will not display the first index point, that is you will not normally see the display [**CD 11.1**] but when the second index point is reached, the display will change, for example [**CD 11.2**].

When a disc has ended, the display will show the total number of tracks or the total playing time of the disc.

With any other input selected the Display key will toggle between display on and off

#### 9.7 Phase

The  $\emptyset$  key on the 209 inverts the absolute phase of the converter within the 603. This phase inversion is indicated by the red phase light on the 603 going out.

#### 10 Cleaning

The main body of the 603 is anodised aluminium. To clean the case, use a cloth barely moistened with water.

Disconnect the power cord before cleaning the unit. Ensure that no water is allowed to get inside the case and do not re-connect the power until you are certain that the 603 is completely dry.

The display panel is glass, the key pad is plastic with gold plated buttons. Use a barely damp chamois leather on these areas.

Do not use abrasive cleaners on any part of the 603.

The connectors on the rear of the 603 are gold-plated and need no cleaning if gold-plated phono plugs are used. Otherwise, we recommend that you remove and replace the plug at least once a year. A proprietary contact cleaner can be used to some advantage.

## 11 Operation summary

### On the 603 front panel:

- Off** Puts the 603 into the *standby* state.
- Source** Steps through sources available.
- Copy** Used to select/review tape out signal.
- Copy – X** Copy input X.
- Display** Cycle the display through:  
*either*  
track number.  
disc elapsed time and track number.  
track elapsed time and track number.  
display off.  
*or*  
display on.  
display off.
- Mute** Switches between mute and demute.
- Volume Up** Increase the volume.
- Volume Down** Decrease the volume.

### On the 209 Remote Control unit:

- Source keys** Selects input depending on customisation.
- Standby** Puts the 603 into the *standby* state.
- Ø** Inverts absolute phase.
- Volume Down** Decrease the volume.
- Volume Up** Increase the volume.
- Mute** Mutes output.

## 12 Help!

### 12.1 Standby point not lit

Check the following:

- there is AC power connected to the socket on the rear of the 603
- the power switch on the rear panel of the 603 is turned on

If the 603 will still not illuminate, check any fuses in your power supply and the fuse in the inlet of the 603. If these are all intact, contact your dealer.

### 12.2 Radio interference

**NOTE** 603 is a digital audio and computing device which has been designed to very high standards of electromagnetic compatibility.

**FCC WARNING:** This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in:

- Subpart J, Part 15 of FCC rules for a Class B computing device.

These limits are intended to provide reasonable protection against such interference in home installations.

If this equipment does cause or suffer from interference to/from radio or television reception then the following measures should be tried:

- Reorient the receiving aerial (or antenna) or route the antenna cable of the receiver as far as possible from the 603 and its cabling.
- Ensure that the receiver uses well-screened antenna cable.
- Relocate the receiver with respect to the 603.
- Connect the receiver and this product to different AC outlets.
- If the problem persists contact your dealer.

**EEC** This product has been designed to comply with the limits set out in EN55013 and EN55020C.

**REMEMBER** to switch all units off before changing any connections.

## 13 Maintenance & Service

The *Meridian* 600-Series of hi-fi components have been carefully designed to give years of untroubled service, and there are no user-serviceable parts inside the case, nor do the units require any form of maintenance.

In the unlikely event that your 603 fails to function correctly, it should be returned, in its original packing, to your *Meridian* dealer.

In case of difficulty, please write to:

- In the UK, Boothroyd Stuart Ltd.  
13 Clifton Road, Huntingdon,  
Cambridgeshire, PE18 7EJ.
- In the USA, Meridian America Inc.  
14120-K Sullyfield Circle, Chantilly, VA 22021  
Tel (703) 818 3028, Fax (703) 830 7825
- Outside the UK, contact the importing agent for the territory. A list of *Meridian* agents abroad is available from the above addresses.

No responsibility can be accepted for the 603 whilst in transit to the factory or an agent and customers are, therefore, advised to insure the unit.

## 14 Guarantee

The *Meridian* 603 is guaranteed against defects in material and workmanship for 12 months from the date of purchase.

The guarantee is void if the 603 has been subjected to misuse, accident or negligence, or has been in any way tampered with or modified without the written authorisation of Boothroyd Stuart Ltd.

Note that connecting anything other than the correct Network-Lead to the socket marked 600 COMMS may cause damage to the 603 which will not be covered by this guarantee. Attempted servicing by unauthorised people may invalidate this guarantee.

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

When seeking service under guarantee, proof of the date of purchase will be required.

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 other equipment.

This guarantee does not limit your statutory rights within the United Kingdom.

## 15 Specification

### Inputs

Digital inputs	32kHz–48kHz
Cable input	IEC958, 75ohm
Optical input	EIAJ
Analogue inputs	
LP	1.5mV, 47k ohms (MM) 100µV, 100 ohms (MC)
Radio	150mV, 10k ohms
Video	150mV, 10k ohms
Tape	150mV, 10k ohms

### Outputs

Fixed Line	2v into 60 ohms 0dBm (775mV) +12dBm maximum into not less than 600 ohms
Balanced Tape	+6 dBm 150mV into not less than 10k ohms
Headphone	2V rms, maximum

### Conversion system

Type	<i>Bitstream</i> PDM, differential time-aligned mode. 256 times over-sampling, 2 bits. Passive filtering.
Precision	16 bits
Distortion	<0.01%
Controls	Off, Source selection, Copy, Display, Mute, Volume Down, Volume Up
Finish	Black anodised aluminium and glass
Dimensions	325 mm x 100 mm x 320mm (12.9" x 3.9" x 12.6")
Weight	6.4 kg (14 lbs)

## Appendix

### A1 Customising the 603

The 603 is initially programmed to operate a menu of sources listed in 6.2 and needs no customising to become operational. Once you have your system established you may wish to use the 603's customising facility to adjust the input selection and display.

The 603 starts with a menu of six sources which can be expanded to eight or contracted for convenience, even down to one.

As the 603 is typically operated with a 209 the process of customising it is based round the eight source keys of the 209.

Once you have connected the other components in your system to the 603 you will have to decide which key on the 209 will select that input and what the 603 will display at that time.

For example, we would normally have the CD key give a CD display with the D1 (Digital 1) input selected. You may wish to display CD1 for your main CD player and to connect it to O1 (Optical 1) or even A-VI (Analogue Video). All these possibilities and more are available with a 603.

To allow the user to adjust the operation of the 603 without fear of losing sight of the original settings this standard set-up is available by resetting the 603. To reset the 603:

- power up the 603 with the **Off** key pressed
- This will leave you in *set-up* mode where you can adjust the operation of the 603. When customisation is complete switch the power off and then on again.

To access *set-up* mode without diverting to the standard settings:

- power up the 603 with the **Source** key pressed
- The two letters on the left of the display denote which 209 key you are setting up and the letters on the right indicate the logo which the 603 will display. A full list of possible logos is:

None	Video	TP2
CD	DAT	TP3
Radio	SAT	CD1
LP	Line	CD2
Tape	TP1	CD3

To change the logo:

- use the **Volume** keys until the correct logo is indicated
- When the 'None' logo is selected the 603 will never select that source. This therefore reduces the menu every time the 'None' logo is selected. To set the physical input for this 209 key:

- press **Display**
- The 603 209 key you are setting up is indicated on the left as before, but the letters on the right indicate which input will be selected. The Display key will toggle between logo and input set-up. A full list of physical inputs is:

D1 - Digital 1	A-RD - Analogue Radio
D2 - Digital 2	A-LP - Analogue LP
O1 - Optical 1	A-TP - Analogue Tape
O2 - Optical 2	A-VI - Analogue Video

To change the physical input:

- use the **Volume** keys until the correct one is indicated

To move onto the next 209 key:

- press **Source**

When customisation is complete:

- switch the power off and then on again.

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