



# S4.3



## MULTI-ROOM SYSTEM



Installation Manual

## 6.1 Preliminary Observations

Once properly installed and set up, the S4.3 Controller Multi-Room System is exceptionally easy to operate.

As detailed in Section 5.11, the S4.3 Controller should ALWAYS be plugged into an uninterruptable a.c. source. This ensures that essential S4.3 Controller system benefits such as remote controlled zone activation and source selection are always available.

Zone control devices (the KMS keypad and DMS module) are powered from the data cables and are always active as long as the S4.3 Controller is connected to a.c. and switched on.

## 6.2 RHS Hand-held Remote Control



The RHS controller provides easy and convenient system operation from any zone equipped with a DMS module. The RHS/DMS's operating range is longer and the angle of acceptance is wider than with many other hand held controllers. This increased operating convenience is a direct result of a more powerful transmitter in the remote and more sensitive receiving circuitry in the DMS modules.

## 6.21 Input Selector Buttons

Depending on system status, pressing any of the input buttons TUNER, CD, TAPE/SAT or VID/DVD will do one of the following:

- a) If the entire system is "Off" (i.e., the S4.3 Controller is in "Standby" mode and the source components are powered from the switched a.c. mains outlet), pressing any input button will activate the zone, power up the source components and start the source playing.
- b) If only the requesting zone is in "Standby" (and the rest of the system, including sources, is active), selecting an input will enable that zone's microprocessor-controlled switching circuitry and direct that source's output to the requesting zone. If the requested source is not already in use by another zone, selecting the source will also engage Play mode.
- c) If the requesting zone is already playing a different source, pushing another input selector button will simply choose the new source.
- d) Input selector buttons for CD, TAPE/SAT and VID/DVD double as "Play" command buttons for their respective sources. This is important when a source is in "Stop" mode: Simply press the proper input selector again to resume play.

## 6.22 Tuner (Source 1) Control Buttons

Ensure that the tuner aerial is connected and stations programmed into memory before checking this handset feature.

- a) **TUNER**: This selects source 1.
- b) **FAV. STN (Favourite Station)**: This will select the first station (Preset No.1) programmed into the tuner's memory.
- c) **- PRESETS**: This selects the next PRE-PROGRAMMED station LOWER in frequency than the one playing.
- d) **PRESETS +**: This selects the next PRE-PROGRAMMED station HIGHER in frequency than the one playing.

**NOTE: BOTH - PRESETS and PRESETS + select only pre-programmed stations; they do not perform a station search.**

## 6.23 CD (Source 2) Control Buttons

- a) **CD**: This selects source 2.
- b) **STOP**: This button stops the CD.
- c) **RANDOM**: This instructs the single CD player to play tracks in a random order. On Multi Disc CD Players random tracks are selected from the disc library.
- d) **DISC** (functional only with multi-play CD players): This advances the CD player to the next available disc.
- e) **SKIP ►**: This advances the CD player to the next track on the disc being played.
- f) **◄ SKIP**: This button reverts to the beginning of the track being played. Two quick pushes access the previous track.

## 6.24 Tape/Satellite or Cable (Source 3) Control Buttons

- a) **TAPE/SAT**: This selects source 3.
  - b) **-◄◄ (Rewind)**: This rewinds the tape. Press the 'Tape' button to put the deck back into PLAY mode.
- FOR SATELLITE RECEIVER, this function decrements the channel number.
- c) **►►+ (Fast forward)**: Same as b) above but in the opposite direction.

FOR SATELLITE RECEIVER, this function increments the channel number.

## 6.25 VCR/DVD/Tuner 2/CD 2 (Source 4) Control Buttons

**VID/DVD** : This selects source 4 and starts the source playing.

### VCR Functions

- a) **STOP**: This button stops the Video.
- b) **◀◀ (Fast reverse/Scan)**: This rewinds the video tape.
- c) **▶▶ (Fast forward/Scan)**: As above except opposite direction.
- d) **-CHNL (Channel minus)**: Decrements to lower channel number utilising the video's built- in TV Tuner.
- e) **CHNL+ (Channel plus)**: Increments to a higher channel number.
- f) **PAUSE**: This button pauses the VCR.

### DVD Functions

- a) **STOP (Stop disc)**: This stops the DVD.
- b) **◀◀ (Scan back)**: This scans back through the disc program.
- c) **▶▶ (Scan forward)**: This scans forward through the disc program.
- d) **PAUSE**: This button pauses the DVD disc.
- e) **-CHNL** This button reverts to the beginning of the track/chapter being viewed. Two quick pushes accesses the previous track/chapter.
- f) **CHNL+**: This advances the DVD player to the next track/chapter.

### Tuner 2 Functions

- a) **STOP (Favourite station)**: This button selects the first station (Preset No 1) programmed into the tuner's memory.
- b) **— ◀◀ (- Preset)**: This selects the next PRE-PROGRAMMED station LOWER in frequency than the one playing.
- c) **▶▶ + (Preset +)**: This selects the next PRE-PROGRAMMED station HIGHER in frequency than the one playing.
- d) **PAUSE**: No Function

- e) **-CHNL**: No Function
- f) **CHNL+**: No Function

### CD2 Functions

- a) **STOP (Stop disc)**: This stops the CD.
- b) **— ◀◀ (Track -)**: Returns the CD to the beginning of the track being played. Two quick pushes access the previous track.
- c) **▶▶ + (Track +)**: This advances the CD to the next track.
- d) **PAUSE**: No Function
- e) **-CHNL (Random play)**: This instructs a single CD player to play tracks in a random order. On multi-disc CD players, random tracks are selected from the disc library.
- f) **CHNL+ (Next disc)**: This advances the CD to the next disc.

## 6.26 VOLUME UP ▲, VOLUME DOWN ▼

Press the desired button to change the volume level in the zone.

## 6.27 MUTE

This temporarily reduces the zone volume to a very low level for telephone conversations, etc. Press Mute again to restore volume to original level. You can also press Volume Up, Volume Down or any Input button to restore original level.

## 6.28 STBY

This button has two functions:

- a) A brief push will put the zone from which the command originated into Standby status. All other zones will remain unaffected. Source components will remain on.
- b) A continuous push of more than 3.5 seconds will have one of the following effects depending on the system configuration:

**NOTE: The Display will momentarily show "Off!" to acknowledge this command.**

- In a system using only one S4.3 Controller, a continuous push of more than 3.5 seconds will power down the entire system including source components.
- In a system using multiple controllers, a push of more than 3.5 seconds will power down all controller zones and turn all source components connected to the switched a.c. mains outlets OFF.

**NOTE: The Control Link must be in place for the above to work as described. It should also be noted that the external a.c. mains control via the TX Format connector must be open circuit. See section 5.14 for details.**

## 6.29 "X"

This is reserved for future use and is inoperative at the present time.

## 6.3 KMS Keypad

The KMS keypad offers easy access to most S4.3 Controller system functions. It has eight individual keys to send commands to the S4.3 Controller.

### 6.31 Key Functions

The keys in the left column each select a connected source with a single press the top key selecting source 1 and the bottom key selecting source 4. Pressing any source key automatically activates the zone if it is in standby and selects the source; if the zone is already active, it changes to the new selected source.

**NOTE: When delivered, the key caps for sources 3 and 4 keys are not fitted. A selection of key caps, appropriate to all possible source components connected as sources 3 and 4, are provided for fitment during installation. This enables the KMS to correctly indicate each connected source.**

The keys in the right column provide command functions. The upper and lower keys provide standard system functions applicable to any selected source. The functions provided by the two centre keys change automatically depending on the selected source.



### 6.32 System Commands



**(Volume -):** Press to decrease volume in the zone.



**(Volume +):** Press to increase volume in the zone.



**(Standby):** This button has two functions:

- a) A brief push will put the zone from which the command originated into Standby status. All other zones will remain unaffected. Source components will remain on.
- b) A continuous push of more than 3.5 seconds will have one of the following effects depending on the system configuration:

**NOTE: The Display will momentarily show "Off!" to acknowledge this command.**

- In a system using only one S4.3 Controller, a continuous push of more than 3.5 seconds will power down the entire system including source components.
- In a system using multiple controllers, a push of more than 3.5 seconds will power down all controller zones and turn all source components connected to the switched a.c. mains outlets OFF.

**NOTE: The Control Link must be in place for the above to work as described. It should also be noted that the external a.c. mains control via the TX Format connector must be open circuit. See section 5.14 for details.**



**(Mute):** This temporarily reduces the zone volume to a very low level for telephone conversations, etc. Press Mute again to restore the volume to the original level. Pressing the volume control key (up or down) or any source key will also restore volume.

### 6.33 Tuner (Source 1) Commands



**(-Preset):** This selects the next PRE-PROGRAMMED station LOWER in frequency than the one playing.



**(Preset +):** This selects the next PRE-PROGRAMMED station HIGHER in frequency than the one playing.



**(Favourite station):** This selects the first station (Preset No 1) programmed into the tuner's memory.



**No Function**

### 6.34 CD (Source 2) Commands



**(Track skip back):** This reverts to the beginning of the track being played. Two quick pushes select the previous track.



**(Track skip forward):** This advances the CD to the next track.



**(Stop disc):** This stops the CD.



**(Next disc):** This advances the CD to the next disc (when appropriate).

### 6.35 Tape Deck/Satellite/Cable (Source 3) Commands

#### Tape Deck



**(Fast rewind):** This rewinds the tape. Press source 3 key to put the deck back into Play mode.



**(Fast forward):** Same as above except in the forward direction.







**(Stop tape):** This stops the tape deck.







**No Function**

## Satellite or Cable





-  **(- Channel):** This changes to a lower channel number.
-  **(Channel +):** This changes to a higher channel number.
-  **No Function**
-  **No Function**

### 6.36 VCR/DVD/Tuner 2/CD 2 (Source 4) Commands




#### VCR

-  **(Fast rewind / scan back):** This rewinds the tape, with scan if the tape is being played when the function is selected.
-  **(Fast forward / scan forward):** Same as above except in the forward direction.
-  **(Stop VCR):** This stops the VCR.
-  **(VCR Ch+):** This advances the VCR to the next channel.





#### DVD

-  **(Scan back):** This scans back through the disc program.
-  **(Scan forward):** This scans forward through the disc program.
-  **(Stop disc):** This stops the DVD.
-  **No Function**

## Tuner 2

-  **(- Preset):** This selects the next PRE-PROGRAMMED station LOWER in frequency than the one playing.
-  **(Preset +):** This selects the next PRE-PROGRAMMED station HIGHER in frequency than the one playing.
-  **(Favourite station):** This selects the first station (Preset No 1) programmed into the tuner's memory.
-  **No Function**

#### CD 2

-  **(Track skip back):** This reverts to the beginning of the track being played. Two quick pushes select the previous track.
-  **(Track skip forward):** This advances the CD to the next track.
-  **(Stop disc):** This stops the CD.
-  **(Next disc):** This advances the CD to the next disc (when appropriate).

## 6.4 DMS Module

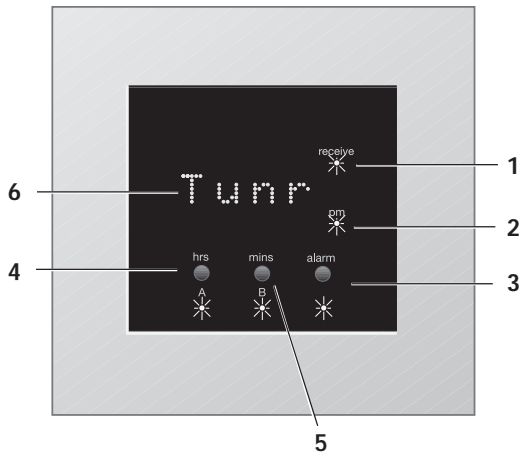
### 6.41 Overview

When a zone is active, the DMS module responds to control commands from the RHS handset, the KMS keypad and also from other infra-red devices. It displays appropriate system status messages.

When a zone is at Standby, the DMS displays the time.

If the DMS display is blank, this indicates that the S4.3 Controller is switched Off.

### 6.42 Controls and Indications



- 1 **receive LED:** This lights when the DMS receives a signal (infra-red code) from the handset or from the KMS keypad in the same zone.
- 2 **pm LED:** This lights up between 12 noon and 12 midnight.
- 3 **alarm button and LED:** The button is used when setting the alarm and clock time. The LED is lit when the alarm is set.
- 4 **hrs / A button and LED:** This button is used (as hrs Button) when setting the time or alarm and also, when appropriate, (as A speakers button) to control speakers connected to the A output on the Zone Splitter.
- 5 **mins / B button and LED:** This button is used (as minutes button) when setting the time or alarm and also, when appropriate, (as B speakers button) to control speakers connected to the B output on the Zone Splitter.
- 6 **Dot Matrix Display:** This is used to display the time and appropriate status and setup messages, as described below.

### 6.43 Dot Matrix Display

- a) **Selected Source:** The display shows the in-use source as follows:



Source 1



Source 2



Source 3 - Tape Deck



Source 3 - Satellite or Cable



Source 4 - VCR



Source 4 - DVD



Source 4 - CD 2



Source 4 - Tuner 2

- b) **Clock Display and Greeting:** When a zone is in standby mode, the time is displayed in 4-digit 12hr format. When the zone is activated, the DMS shows a scrolling greeting 'Good morning', 'Good afternoon' or 'Good evening' appropriate to the time of day. At shutdown and between 10pm and midnight the DMS shows 'Good night'. When a zone is active, pressing the alarm button will display the time.
- c) **Volume Level:** When a Volume control command is sent, the DMS will display a 2-digit number counting up or down between vo 00 (min. volume) to vo 63 (max. volume).



Minimum Volume



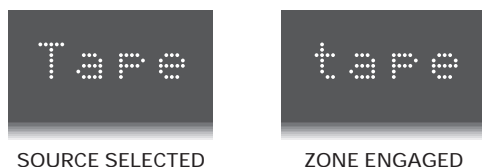
Maximum Volume

When a Mute ON signal is sent the volume level decreases to zero and the DMS displays the message 'Mute'. On receipt of a Mute off, or source select, or volume up/down command signal, the display will return to its previous level.

If a zone is active and a Paging signal is received, the volume level decreases to zero and the DMS displays '(0)'. If a Paging signal is received while the zone is muted, the DMS display will immediately show '(0)'.

If the zone is in standby mode and a Paging signal is received, the DMS will display the appropriate greeting for the time of day and then '(0)'.

- d) **Automatic Brightness Adjustment:** An ambient light sensor in the DMS module adjusts the brightness of the display as the background lighting varies, to give a more even perceived brightness.
- e) **Engaged Indication:** If a source is engaged, the leading character of the selected source is shown in lower case.



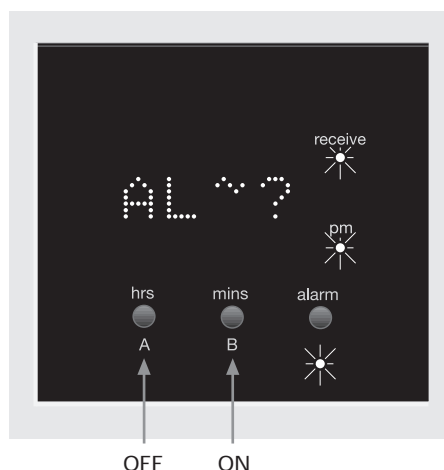
- f) **Internal Battery Indication:** If the time display flashes when a DMS module is first connected, this indicates either that the clock has not been set or that the battery has not been enabled - see Section 4.21 DMS Module. If the display flashes after the system has been turned off for a period of time, this indicates that the internal battery charge is low. The clock time should be reset to stop the flashing and the system left On for a few days to recharge the internal battery.

### 6.44 Operation

With the zone in Standby, the DMS module displays the time. Use the handset or keypad as previously described in Sections 6.2 and 6.3 to select the required functions.

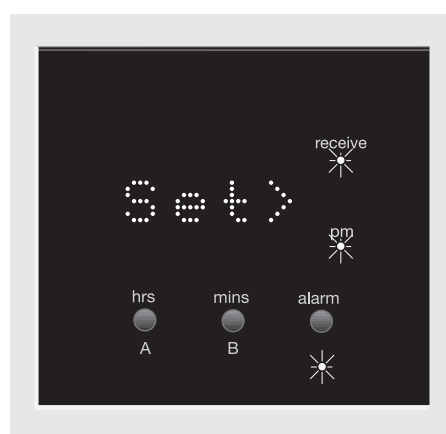
### 6.45 Setting Alarms and Time

With the DMS zone in Standby mode, press the alarm button. The display will show the first 'Mode' function. Repeatedly pressing the alarm button will step through the remaining functions and return the DMS to Standby mode (a total of five steps).



#### 1. Select Alarm

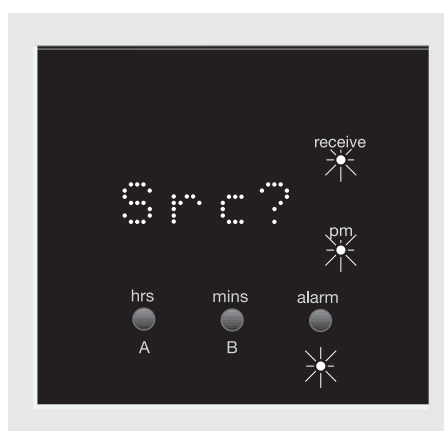
Press the hrs/A button to select alarm off, or the mins/B button to select alarm on.



#### 2. Set Alarm Time

The display will show the last alarm time set. Use the hrs/A and the mins/B buttons to advance to the required alarm time.

**NOTE:** Make sure that the pm indicator is also showing the correct 12hr period for the alarm.



#### 3. Select Source

Select the source to play when the alarm is activated. Press the hrs/A button to select tuner, or the mins/B button to select CD.



#### 4. Set Clock

Use the hrs/A and mins/B buttons to advance to the required clock time.

**NOTE:** The clocks in different zones may be slightly out of synchronisation due to drift or inaccurate setting. They will be synchronised automatically at 12 noon each day with the master system clock in zone A.

#### 5. Return to Standby mode

Pressing the alarm button exits the Mode function.

**NOTE:** If a DMS is set as a slave (See Section 4.21 DMS Module) only the clock can be set. Only one alarm in each zone is permitted.

### 6.46 Zone Splitter Control

If a zone is divided into two separate areas through the installation of a second set of speakers and a Zone Splitter, the prime DMS within that zone is used to control the Zone Splitter and direct a selected source input to either or both areas.

To set the DMS in 'Zone Splitter' mode, press both the A and B buttons on the prime DMS and hold them pressed for six seconds. The A and B LEDs illuminate as appropriate to indicate the status of the speakers in the A and B areas. If an LED is lit, that speaker pair is switched ON.

If both speaker pairs are On (both LEDs illuminated), one pair can be switched Off by pressing the appropriate A or B button.

If one speaker pair is switched On, the other set can also be switched On by pressing the appropriate A or B button. Alternatively, to switch from one set to the other, both A & B speakers must be switched ON before turning the other set OFF.

**NOTE 1:** It is not possible to switch BOTH pairs of speakers Off - this avoids the possibility of having no audio output when a zone is active.

**NOTE 2:** The A and B button Zone Splitter control function is active whether the zone is Active or in Standby.

**NOTE 3:** When a Zone Splitter is used, both pairs of speakers will share the same volume level and source.



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