

DiGiCo

SD Series Broadcast Options

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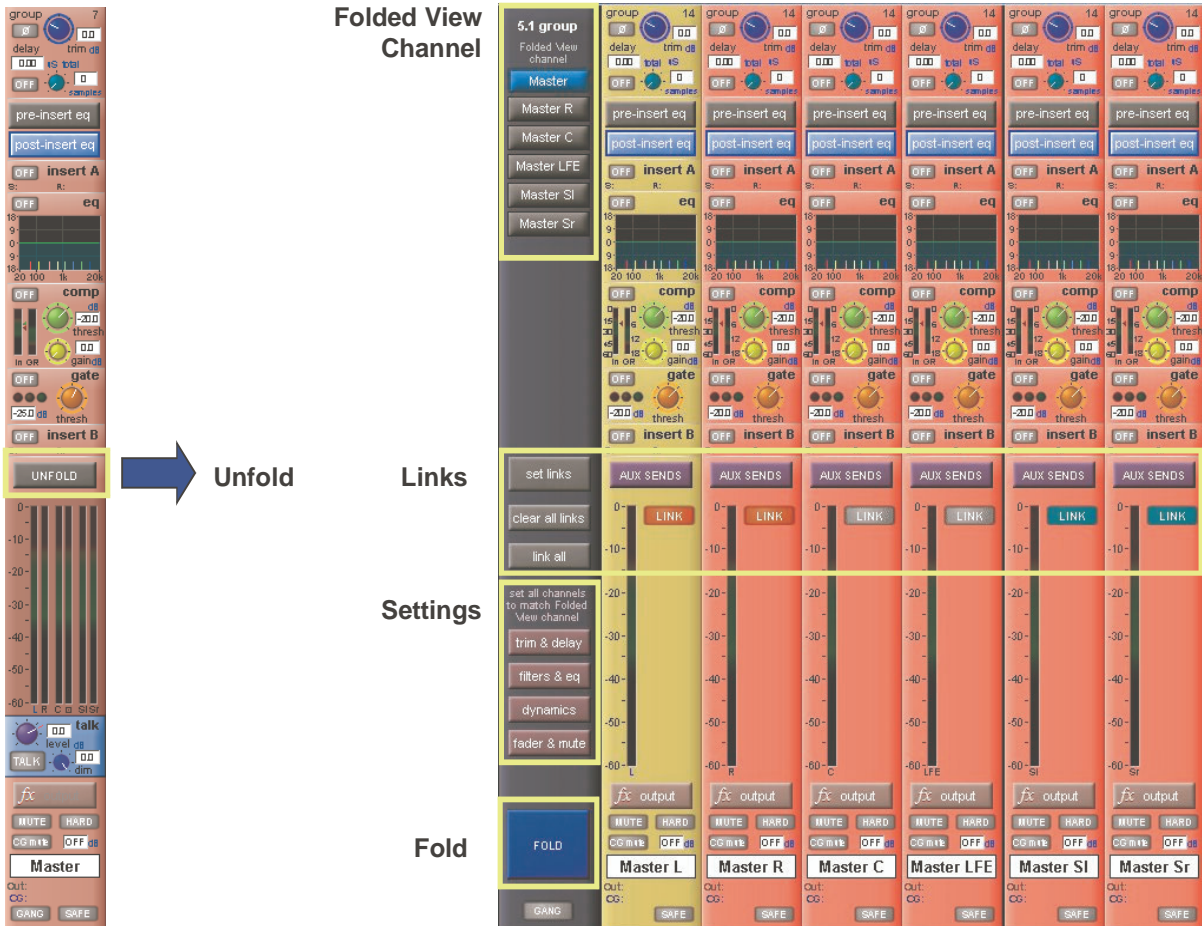
1.1 Introduction

1.1.1 Overview

The DiGiCo Broadcast Options package offers many additional features detailed in this appendix. For details of the standard console operations please refer to the relevant console's User Manual

1.2 Features

1.2.1 Surround Busses



Buss sizes and numbers are defined in the Master screen > Files > Session Structure panel.

Once created and assigned to the worksurface they can be viewed on screen as above.

A surround buss has 2 views, **Folded** and **Unfolded**.

Folded busses have an **Unfold** button that when pressed provides a screen view and control of the individual legs of the buss.

This view can be Folded again by pressing the **Fold** button on the Unfolded view control strip.

The leg of the surround buss that appears and can be adjusted in Folded view is chosen by selecting a **Folded View Channel** in the control strip.

NOTE: In Folded view, the Fader and Mute will always adjust all legs of the Surround Buss.

Any member(s) of the surround buss can be Linked by pressing the **Set Links** button and then touching the relevant channels.

To create more than one set of links, toggle the Set Links button and start the process again.

In the above example of a 5.1 buss you will see that the Left and Right legs are linked and the Surround Left and Surround Right legs are also linked separately.

NOTE: If the Surround Buss is folded and the Folded View Channel is linked to any of the other legs, an adjustment to the settings in the Folded view will also affect all other channels linked to it.

There is an additional option to set elements of the individual legs to be the same as the Folded View Channel. This is achieved by pressing any of the following buttons:

Trim & Delay

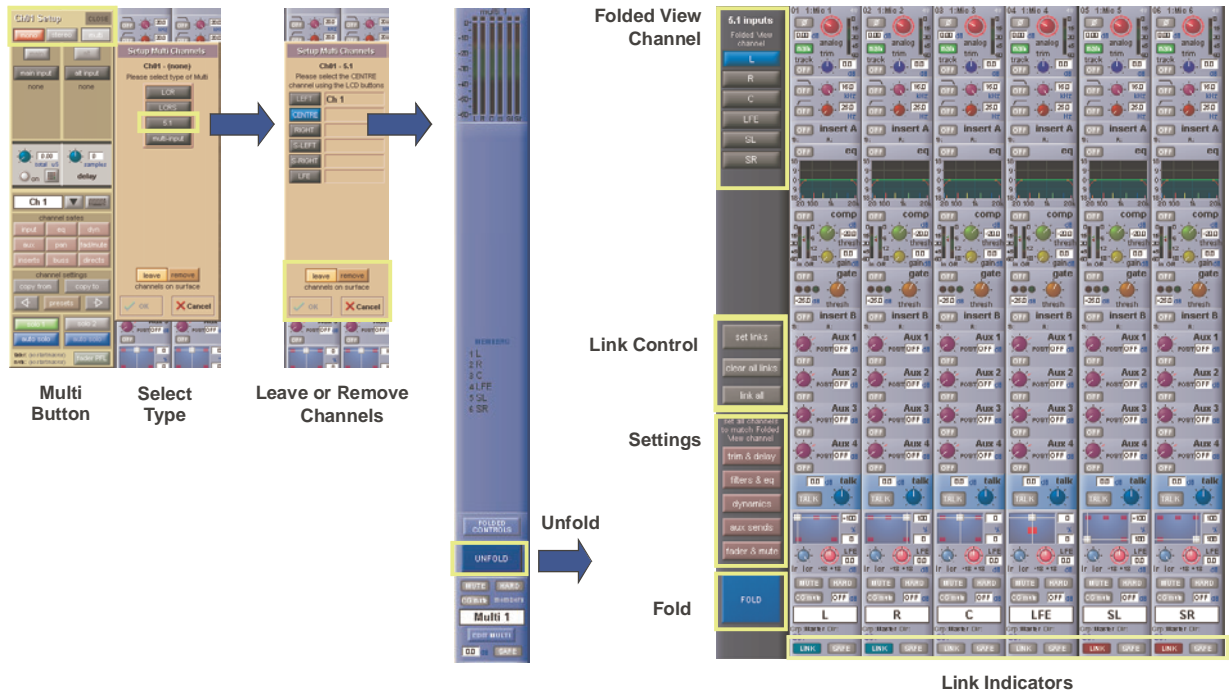
Filters & EQ

Dynamics

Fader & Mute

This is a quick method of giving all the legs of a surround buss the same settings.

1.2.2 Surround Inputs



Surround (Multi) Inputs work in a similar way to surround busses but they are created by the user.

- 1) Touch the top of any input channel and then press the **Multi** button.
- 2) Select a Multi Channel type which is either a surround format of your choice or a **Multi** Input.
A Multi input can consist of up to 11 channels of your choice that you want to group together. This could be a number of sources of similar type (eg strings or vocals)
- 3) Assuming that you have chosen 5.1 as an example you will then be prompted to select each leg of the 5.1 stem by pressing worksurface channel select buttons. As you choose each one, the selection will automatically move to the next.
- 4) At this point you will also be required to either **Leave** the relevant channels on the worksurface (in addition to the ones in the Multi) or **Remove** the relevant channels from the worksurface and only have them in the Multi. The suggested method would be to **Remove** the selected channels as otherwise they will exist in two places and possibly cause confusion.
- 5) When all the legs have been selected, press the **OK** button and the Multi Channel will be created in the same worksurface position as the channel that was used to start the process.

You can now use the **Unfold/Fold** buttons to view the Multi and adjust settings for any individual leg (channel) or elements of all the legs according to the **Links** which are set within the Multi.

NOTE: In Folded view, the Fader and Mute will always adjust all members of the Multi.

The leg of the Multi that appears and can be adjusted in Folded view is chosen by selecting a **Folded View Channel** in the control strip. Any member(s) of the Multi can be Linked by pressing the **Set Links** button and then touching the relevant channels.

To create more than one set of links, toggle the Set Links button and start the process again.

NOTE: If the Multi is folded and the Folded View Channel is linked to any of the other members, an adjustment to the settings in the Folded view will also affect all other channels linked to it.

There is an additional option to set elements of the channels to be the same as the Folded View Channel. This is achieved by pressing any of the following buttons:

- Trim & Delay
- Filters & EQ
- Dynamics
- Aux Sends
- Fader & Mute

This is a quick method of giving all the channels of a multi the same settings.

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Alternative method to Create a Surround/Multi Input

The other method of creating a Surround or Multi Channel is very similar but starts with an empty channel strip.

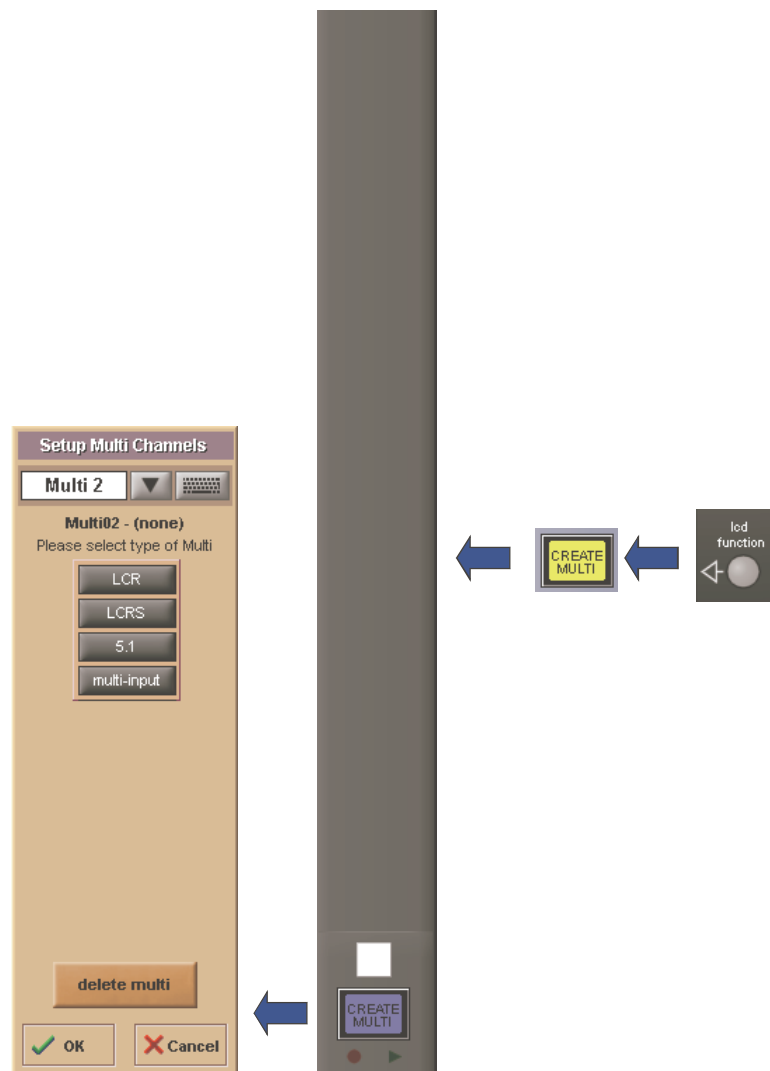
- 1) Press the LCD Function button and select **Create Multi**.
- 2) Any blank channel strips will now have the words "Create Multi" written in their LCD display.
- 3) Press one of the Channel Select buttons on a blank strip and the Select Multi Channels will be displayed on screen.
- 4) Select a Multi Channel type which is either a surround format of your choice or a **Multi** Input.

A Multi input can consist of up to 11 channels of your choice that you want to group together. This could be a number of sources of similar type (eg strings or vocals)

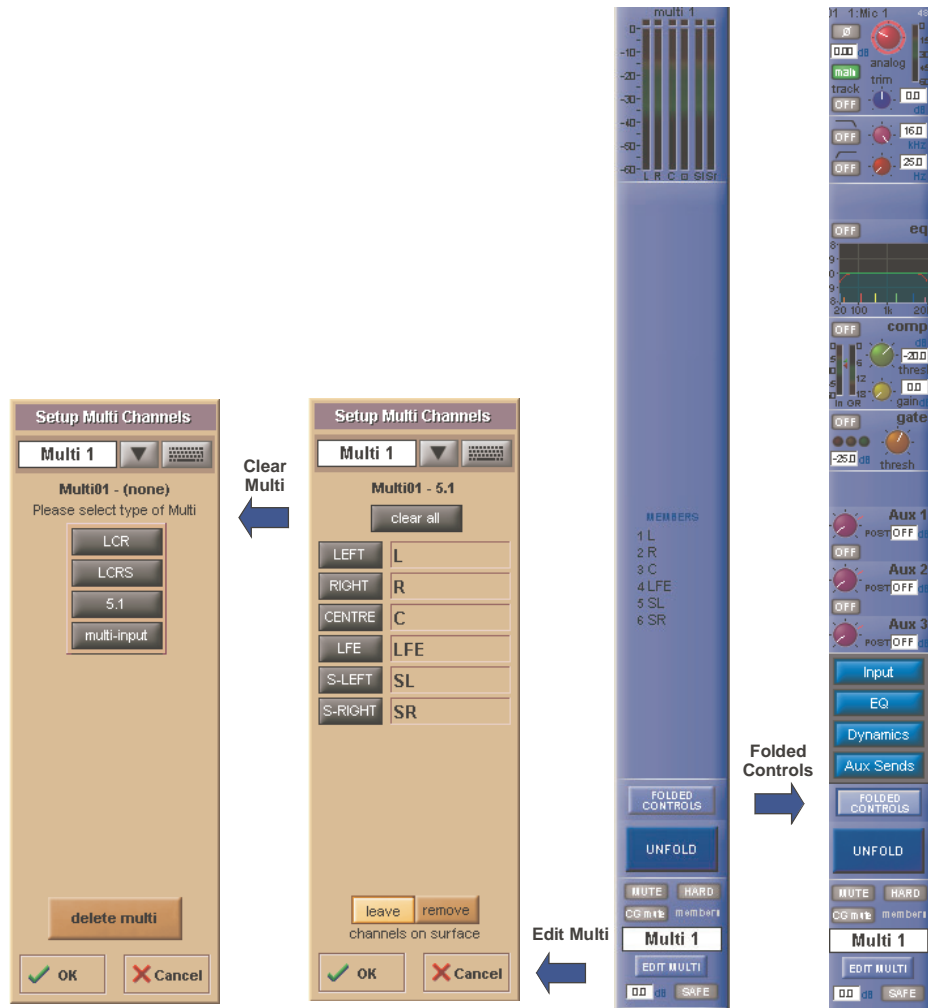
5) Assuming that you have chosen 5.1 as an example you will then be prompted to select each leg of the 5.1 stem by pressing worksurface channel select buttons. As you choose each one, the selection will automatically move to the next.

6) At this point you will also be required to either **Leave** the relevant channels on the worksurface (in addition to the ones in the Multi) or **Remove** the relevant channels from the worksurface and only have them in the Multi. The suggested method would be to **Remove** the selected channels as otherwise they will exist in two places and possibly cause confusion.

7) When all the legs have been selected, press the **OK** button and the Multi Channel will be created in the same worksurface position as the channel that was used to start the process.



1.2.3 Folded Multi Channel Controls.....



A Folded Multi Channel, when first created will appear as above with a Multi Meter at the top of the strip, a list of member channels in the middle and a number of other indicators and buttons at the bottom.

The first of these buttons is **Folded Controls**. Pressing this button opens a panel giving you the option of having control over various aspects of the Multi's members whilst in Folded view.

The possible options are **Input**, **EQ**, **Dynamics** and **Aux Sends** and selecting any of these will display the relevant controls on the Folded Multi's strip.

When the visible controls are assigned and adjusted, the **Folded View Channel** which appears will be adjusted along with any other Multi members that are linked to this channel.

The fader and mute on the Multi channel strip will always affect all of the Multi members irrespective of the link settings and thus serves as a "Master" fader and mute for that multi's members.

The on screen indicators for **Channel Mute**, **Hard Mute** and **CG Mute** at the bottom of the Multi strip give an indication as to whether any of the Multi members are Channel Muted, Hard Muted or CG Muted. If any member has any one of these types of mute active, the Folded Multi's indicator will show this.

In the Folded Multi view the worksurface Mute switch can have one of three different states:

- 1) Not lit (OFF) - the Multi Master Mute is not active - unmuted.
- 2) Lit and red (ON) - the Multi Master Mute is active - muted.
- 3) Flashing from OFF to ON - the Multi Master Mute is active but at least one of the members has been unmuted (opened) thus overriding the Multi Master Mute on one or more of the Multi's Members.

Edit Multi

At the bottom of the Multi strip there is also an **Edit Multi** button which allows the members of the Multi to be changed or the Multi to be cleared or deleted.

Pressing this button will open the **Setup Multi Channels** panel.

To edit the members of the Multi, press one of the grey buttons on the left to select a member and then press one of the worksurface Channel Select buttons to assign a channel.

To clear the Multi, press the **Clear All** button at the top of the panel and then either select a new type of Multi or delete the Multi completely by pressing the **Delete Multi** button at the bottom of the panel.

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1.2.4 Mix Minus

A different Mono Mix Minus feed can be created at the Direct Output of any input channel.
Firstly send all required signals (including the channel that is to be removed) to an existing Mono Buss and note the name of this buss.
Then open the Output routing setup on the channel that is to be removed (see picture below) and in the Mix Minus section press the button for the Mix Minus buss that you have just created.
When this channel's Direct Output signal is now routed to a physical console or rack output, the channel's input signal will be removed from the direct output signal.

Select any Mono Buss and route to the channel Direct Out for Mix Minus this channel's signal

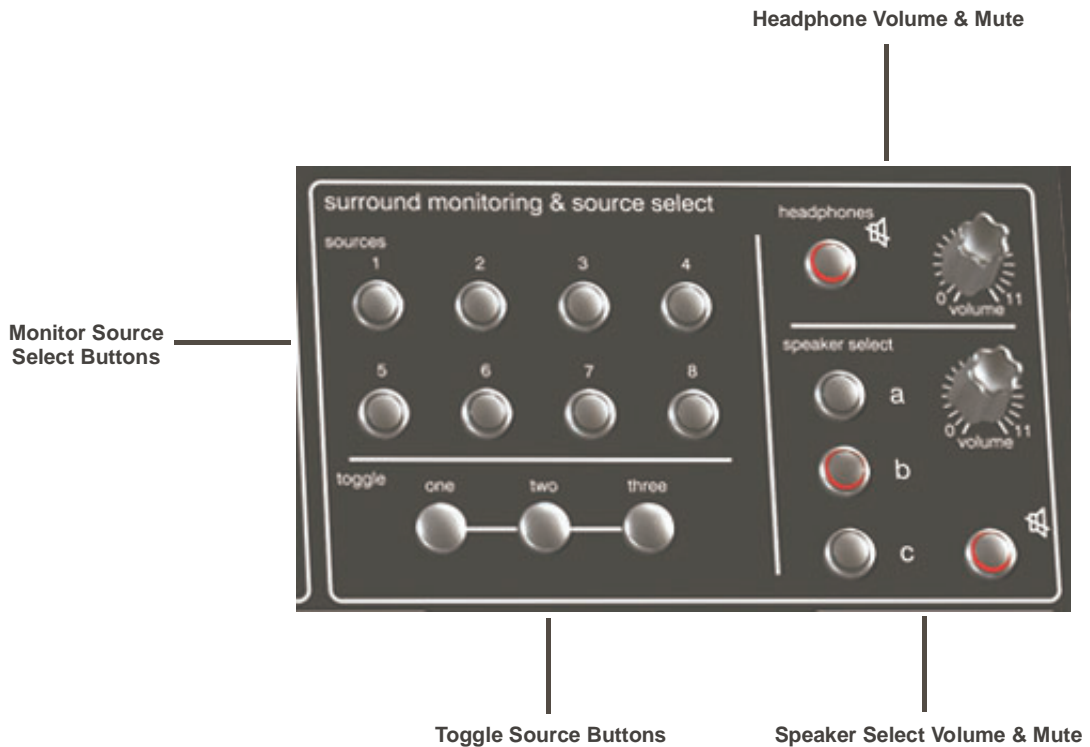


Talk To Direct Out

At the bottom of each input channel on screen, there is a Talk Button and a Talk Level control that activate the console Talkback feeding the Direct Out / Mix Minus Out. Assign these controls to the console worksurface by holding one of the Assign Buttons next to the 3 rows of rotary controls on the worksurface and then touching the Talk Controls on screen. The console Talkback Mic input is defined in the Master screen Setup > Talkback menu.
With a Talkback Mic input selected and the channel Talk button active (pressed and red), the channel's Direct Out / Mix Minus signals will be replaced by the Talkback Mic signal.

1.2.5 Monitoring

The console's Monitoring system normally monitors the Master buss signal, or the Solo signal if it is configured to do so. Additionally, source definition and selection enable any input or output source to be monitored by pressing one or more of the Source Select buttons.



Speaker Volume and Mute

This rotary simply controls the volume of the speaker monitor signal.

Please note: If CAL is activated in the Monitoring Panel, the Speaker Level will have no effect on the speaker volume.

Solo Modes and Configuration

(See Solo Options later in this appendix)

Speaker Select a, b and c Switches

They operate as speaker selectors, routing the monitoring signal to three different sets of speakers. A Speaker Set can be defined in the **Monitoring** panel.

Monitoring Source Select buttons

There are eight Monitoring source buttons (1-8), allowing the connection of up to eight sets of signal sources which operate independently of the main console structure. When one or more of the sources is selected, the master buss is disconnected from the Monitoring Outputs and is replaced by the selected source(s).

These sources are defined in the **Monitoring** panel.

The Monitor Matrix

The SD console Broadcast options include a fully featured 48 x 6 monitor matrix. This allows you to take up to 48 signals from either console busses or input channels, and combine them to feed 6 speaker outputs providing for up to 5.1 format monitoring.

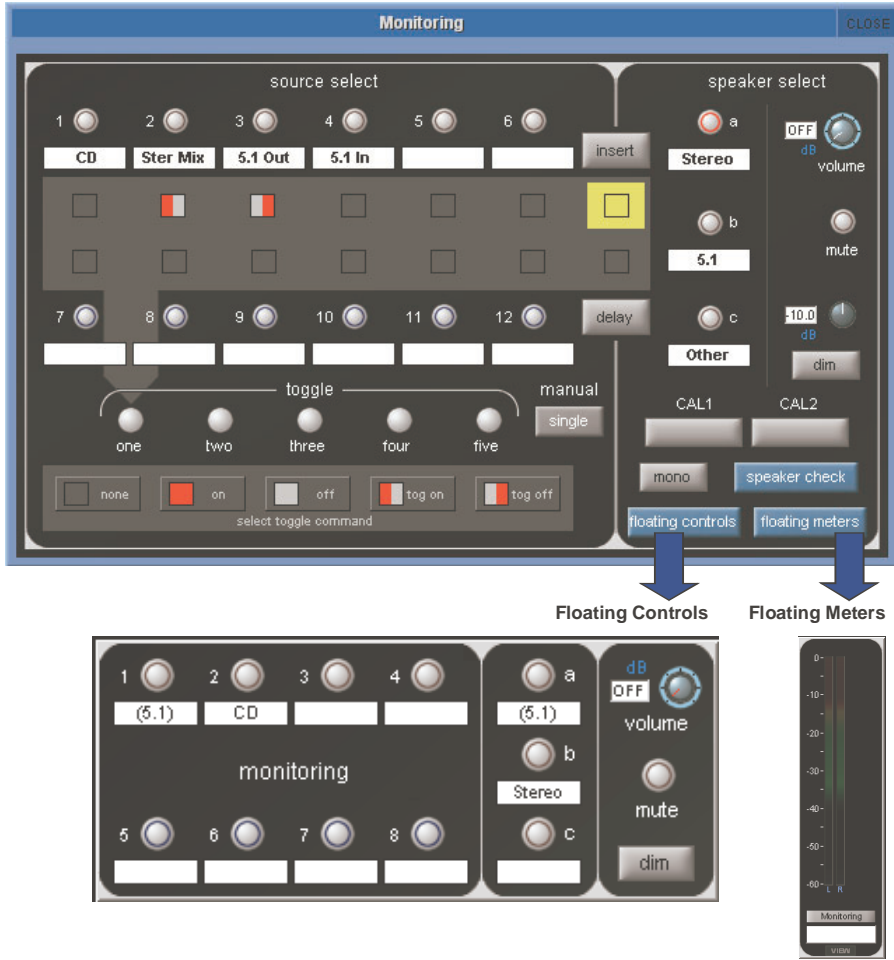
Procedure

To use the monitor matrix you need to perform 2 steps:

- 1) Configure the speakers - this involves telling the matrix which speakers to use for any given monitoring format, and what levels to feed them with. Speakers are selected by pressing the a, b or c speaker select buttons.
- 2) Configure the Sources - this involves deciding where input signals will come from and which buss signals will be brought into the matrix. Sources are selected by pressing the Monitoring Source select buttons 1-8.

As an option you may also set up some switching macros - this involves programming the sources to switch on and off automatically when toggle buttons one, two or three are pressed.

Touching the **Setup > Monitoring** button on the Master screen shows the following panel.



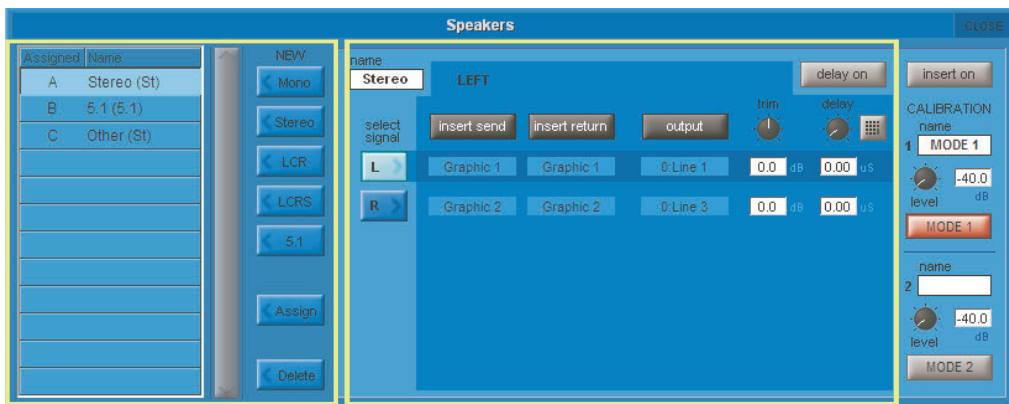
Configuring Speaker sets

The column of buttons marked Speaker select a, b, c are assigned to the Speaker Select Switches in the Master Section of the console workspace and can also be selected on this page. When pressed they will switch the monitoring signal to one of the three sets of speakers. They could, for example, be configured as 5.1, stereo main and stereo nearfields

To Assign a Speaker set to a button

Touch the **white label box** beneath one of the a, b or c on screen buttons and a new panel will appear which allows you to select a speaker setup from the user defined list. Touch one of the **New Mono/Stereo/LCR/LCRS/5.1** buttons and this will put a new entry in the list. Its name will initially appear as its type but it can be renamed by typing into the **Name** box.

To assign the speaker set to a different button, select a speaker set from the list by touching it on screen and then press the **Assign** button. Now select one of the speaker buttons a, b, or c from the drop down list.



Define Speaker Sets

Routing to Speakers

To Edit a Speaker Set

Select a Speaker Set in the column on the left hand side or define a new one by pressing one of the buttons in the column marked **New**.

The **Delete** button will prompt you to **Select All** or a **Range** of **Speaker Sets** to remove from the list.

A new monitor can be named in the **name** box.

Each signal of the **Speaker Set** can be sent to a specific speaker by pressing one of the **Select Signal** buttons and choosing a speaker output socket from the **Speaker Output Route** panel - to open this panel press the **Output** button next to the **Trim** control.

When the first (eg Left) **Speaker Output Route** is selected the other signals (right etc) will be automatically routed to the subsequent output sockets. This function can be manually overridden by routing signals individually to outputs of your choice.

The **Trim** control adjusts the output level to each speaker.

Insert Send and Receive

The Insert Send and Receive buttons allow you to define send and return sockets for patching processors into your speaker system. It works in the same way as the channel insert settings.

Select a send socket which corresponds to your processor's input and a return from the output of the processor. This can be an internal or external processor.

Calibration

The buttons in the **Calibration** section of the panel allow you to set your monitoring levels to preset values and when pressed, the console's Speaker level rotary pot is bypassed.

To define the calibrate levels, use the name box and level controls, set appropriate labels and levels for Calibration 1 and 2.

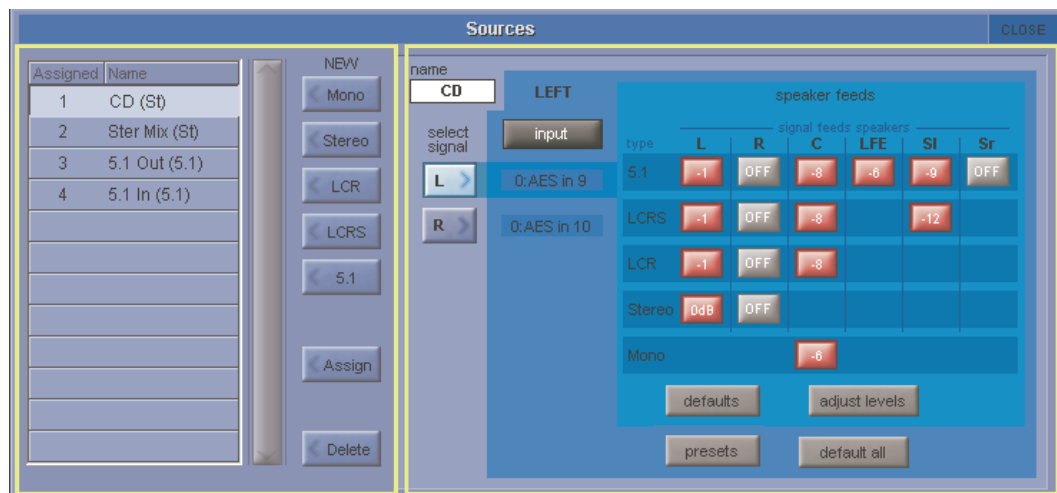
Pressing one of the wide grey buttons beneath the level controls switches Calibration mode on.

NOTE: be very careful with this feature as when it is active you will no longer have speaker level control from the console's worksurface speaker level pot.

Configuring Sources

The 2 rows of buttons marked 1 to 8 are assigned to the Monitoring Source buttons in the Master Section of the console worksurface.

Each of these buttons can represent a set of signals which will be a potential feed to the speakers. They will typically include different sets of Mono, Stereo, LCRS or 5.1 busses or inputs.



Define Matrix Sources

Matrix Source Routing & Upmix/Downmix

In the illustration above there are 4 different sources assigned to buttons 1 to 4 and any source or combination of sources can be monitored by pressing the relevant worksurface buttons.

If required, you could also set up a **Source Switch Toggle** which would toggle between different sets of sources by simply pressing one of the 3 Toggle Switches.

To Assign Control Room Sources

If you touch one of the **Source Select** white label boxes in the Monitoring panel, a new panel (see above) will appear which allows you to assign the sources.

Touch one of the sources by touching it on the screen and then touch the **Assign** button. Now select one of the button numbers to assign it to the button.

In **Manual** mode, multiple sources can be monitored at one time.

Selecting **Single** mode on the main Monitoring panel will switch off the current sources when a new one is selected.

To Create or Edit Control Room Sources

Touch one of the source button labels to open the Edit Sources panel.

You may select an existing source in the column on the left hand side or define a new one by pressing one of the buttons in the column marked **New**.

The **Delete** button will prompt you to **Select All** or a **Range** of sources to remove from the list.

A new source can be named in the **Name** box and then each signal of the source can be defined by pressing one of the **Select Signal** buttons, then pressing the **Input** button and choosing a source from the list of signal groups and signals.

NOTE: If you select a source for the left signal at the top of the list the following signals will, by default, be set to consecutive sockets in that group.

These selections do not have to be consecutive sockets, you may manually override the default selection and choose sources from different groups.

Speaker Feeds - Adjusting Upmix / Downmix Rules

The box on the right hand side of the screen shows which speakers will be fed by which signals in the different monitor configurations. For example, in the previous diagram, the left signal is chosen in the select signal column and in the speaker feed section you can see the speakers which will be fed by this signal in the different monitor configurations.

The selected left signal for the stereo source feeds the left speaker in all cases but also feeds the centre speaker in 5.1, LCRS and LCR speaker configurations. The settings can be changed by pressing the **ON/OFF** buttons.

Pressing **Default** will reset the Speaker Feeds for this signal to their original settings. The default configurations provide settings recommended by Dolby for the purposes of checking different mix formats on various speaker sets. E.g.. A surround mix on a stereo speaker set.

Pressing **Default All** will reset the Speaker Feeds for all the signals in this speaker set to their original settings.

Pressing **Adjust Levels** will put the upmix/downmix level indicators into edit mode and you can then adjust the levels individually to suit your own application using the console Touch Turn control.

A **Presets** button opens another panel where user defined Upmix/Downmix rules can be stored and recalled.

The same Presets can also be accessed from the Buss to Buss Upmix/Downmix panels.

Source Switch Toggles

The Toggle switches one, two and three can be configured to change monitor sources. When pressed, they can select a specific source or set of sources. If you wish to make A/B comparisons between two different sets of sources the buttons can toggle on repeated presses. (The first press for one set of sources and the second press for another).

To achieve this you must put Macro commands into the nodes which represent the eight different Speaker Sources.

To enter Macro commands touch the **Node** of the required source and then touch the relevant **Select Toggle Command** in the box at the bottom of the panel. There are 5 different commands:

ON - The source will be switched on at each press of the output switch.

OFF - The source will be switched off at each press of the output switch.

TOGGLE ON - The source will be switched on at the first press of the output switch and off at the second press.

TOGGLE OFF - The source will be switched off at the first press of the output switch and on at the second press.

NONE - The source will not be affected by the action of the output switch. This is different to the **OFF** setting as that will specifically turn the source off when the output switch is pressed.

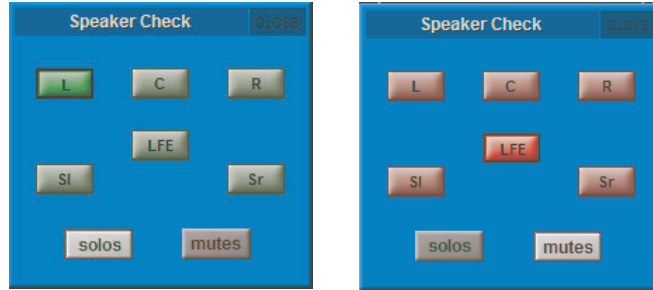


The Insert Point

The setting of the speaker insert point can also be programmed with the above macro commands in the column beneath the insert button. For example, if you programmed the insert to **TOGGLE ON**, and the required sources to **ON** you would be able to hear your sources with or without processing by toggling the relevant Output Switch.

Speaker Check

On the right hand side of the Monitoring panel there is a button labelled Speaker Check which allows you to hear your individual speaker outputs in different combinations. Touching the buttons for the individual speakers will either **Solo** or **Mute** that speaker according to the mode selected at the bottom of the panel.



Dim

The Dim button and level adjustment allow you to set a specific amount of attenuation for your speaker feeds when the Dim button is pressed. Remember that there is also a Dim level applied when one of the console talkback buttons is active.

1.2.6 Fader Starts

Any user defined console **Macro** can be triggered by either a Macro Smart key, an incoming GPI, the snapshot Previous or Next buttons, a keyboard F-Key (F1 to F8), a Fader Up/Down movement or a channel Mute On/Off. All of these triggers are defined in the Setup/Macro panel.

Create a Macro by pressing the **New** button in the Macros panel and this will open the Macro Editor.

Select a **Command Type** in the left hand column and then select one or more commands in the **Commands** column.

Alternatively, press the **Capture** button on the right of the panel and then perform the function(s) that you wish to associate with the Macro.

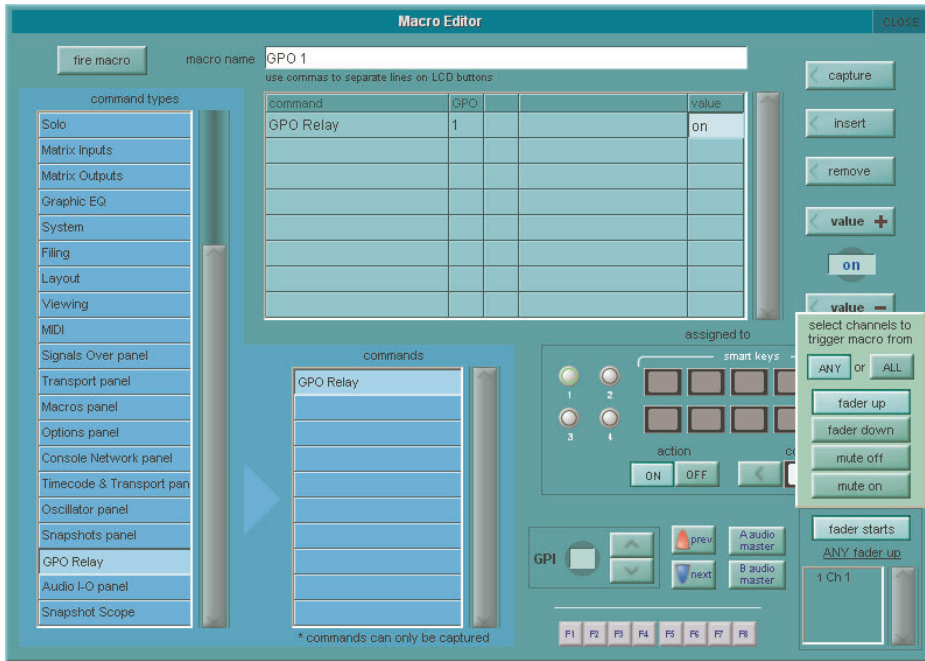
Remember to turn the **Capture** button **OFF** when the capture is complete.

Once the Macro is created select one of the trigger options in the bottom right corner of the panel to operate the Macro.

If you require a **Fader Start** or **Mute On/Off** trigger, press the relevant **Fader Starts Up/Down/Mute on/Mute Off** button and this will open the Channel List panel where you can select the relevant channel.

Once this stage is complete there will be an indicator in the relevant channel's **input setup panel** showing which Macro that channel is associated with (see picture below)





1.2.7 Solo Options

There are two Broadcast specific Solo Options which can be set in the Master screen Options > Solo tab.

Backstop PFL

This is a global function which applies to all input channels.

When a channel fader is held against the backstop, that channel will be soloed automatically and when it is released the solo will go off.

In the **Options/Faders** tab, there are 2 controls which allow the adjustment of the Backstop PFL function:

Backstop Position determines the fader off position when Backstop PFL is enabled.

Backstop PFL Trigger Position determines the fader position where PFL comes on.

Auto Fader PFL

This function can be applied to any number of individual input channels and is switched on by touching the **Fader PFL** button in the input setup panel for the required channels.

In the **Options / Solo tab** there are two Auto Fader PFL Mode options:

On + Off

With Auto Fader PFL switched on, when a channel fader is moved down below the **Fader Down** threshold, that channel will be soloed automatically and when it is moved above the **Fader Up** threshold the solo will go off.

Off Only Mode

With Auto Fader PFL switched on, moving a channel fader down below the **Fader Down** threshold will have no effect on the solo.

However, assuming that the solo is already on, when the fader is moved above the **Fader Up** threshold the solo will go off.

The threshold levels can be set in a console configuration file but in normal operation the default settings should be appropriate.

NOTE: If Backstop PFL is switched on, the Auto PFL thresholds are automatically moved above the Backstop PFL threshold.



Surround Solos & PFL Direct Out

The Master screen **Solos** panel shows details of the console's two Solo Busses.

Solo Buss 1 can be sent to the Main Speakers (Monitor Matrix Speaker Outs) and/or Mono Direct Output.

Beneath the **To Monitoring** label press one of **Mono/Stereo/Surround or Off** buttons to determine whether the Solo 1 signal will go to the main speaker outs and if so, which mode the Solo will have.

The **No Source** button will open a selection panel to choose which Aux or Group buss will be monitored when no other Monitor source is selected.

This No Source signal is set to the **Master buss** by **Default**.

The **Mono Outs** button will open a routing panel to choose which console output or rack output will feed the dedicated mono output speaker. This signal is Mono but can be routed to multiple outputs

Solo 2 can feed a different Direct Output socket of your choice but can also feed the Main Monitoring in Mono.

All console channels have a Solo 1 or Solo 2 choice function that determines which Solo Buss(es) that channel will feed.

If the **Options Panel / Solo / Dual AFL/PFL** mode is set to **YES** then any channel can be sent to either/both solo busses.

Buttons in the Solo panel determine which Solo will be activated by which worksurface button. By default, the channel LCD display button will activate Solo 2 and the lowest underscreen button row will activate Solo 1.

With the Default settings, Solo 1 is in AFL mode and Solo 2 is in PFL mode but these can also be adjusted in the Solos panel or on the worksurface.



Surround Solo 1 and/or Mono Output Mono Solo 2 or Mono Output

1.2.8 GPIO Relays



The GPIO relay actions can be directly accessed using the GPIO Relays panel on the Master Screen System menu > GPIO Relays.

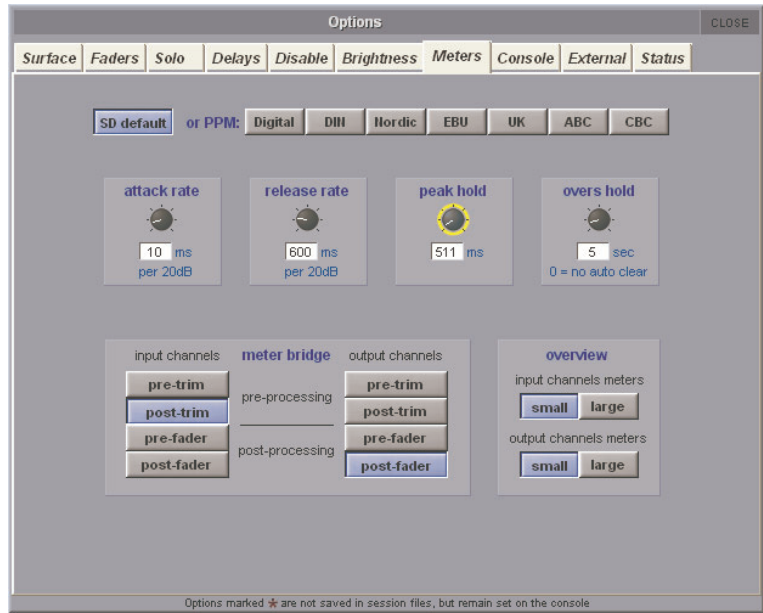
The GPIO panel is split into two sections. The top half operates the GPO's, and the bottom half indicates incoming GPI's.

To trigger a GPO, first select the type of GPO action; either toggle or pulse. Then touch on the GPO output to be triggered. A toggle action will close the GPO if it is open, and open the GPO if it is closed. A pulse action will send a close then open command.

The 16 (according to console model) GPI indicators show the receipt on incoming GPI triggers. Actions are applied to these triggers using the Macro programming panel. The single GPI Event LED in the top right hand corner of the panel will light when any of the 16 (according to console model) GPI's are triggered.

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1.2.9 Meter Options

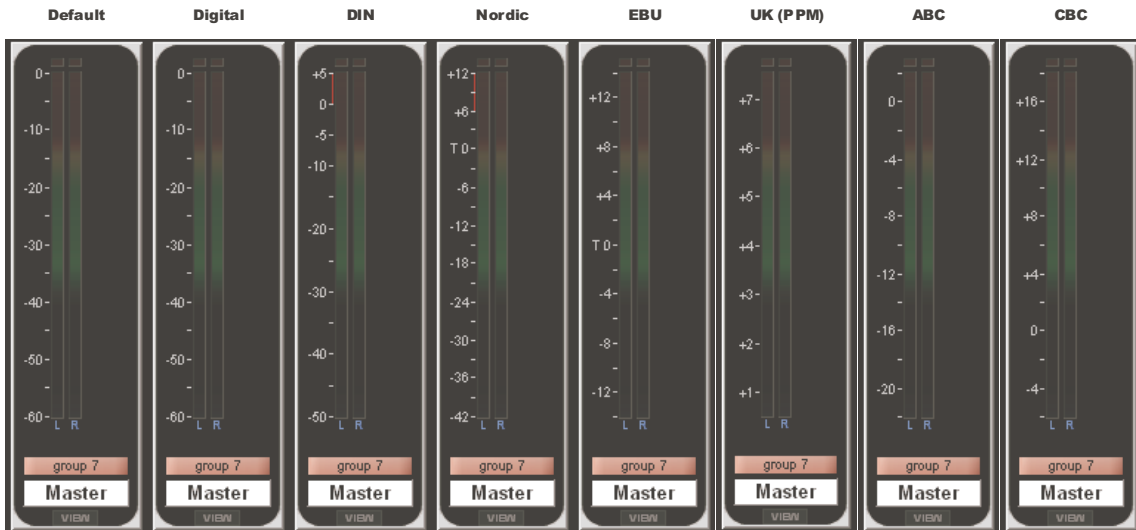


The scale and the ballistics of all on-screen meters can be modified using the controls in the meters tab in the Options Panel.

There are 8 preset meter settings. These are SD Default, Digital, DIN, Nordic, EBU, UK, ABC & CBC

Changing meter standards sets the on screen meter scales and recalls meter ballistics, as set by each standard. Only the attack and release rates are recalled using these meter presets. The Peak and Over hold times remain as user definable options.

The following chart shows the comparison of the meter standards available.



	Default	Digital	DIN	Nordic	EBU	UK (PPM)	ABC	CBC
Attack : ms / 20dB	10	10	2	2	2	3	3	3
Release : ms / 20dB	600	1704	1704	1704	1704	2295	2295	2295

1.2.10 Headphone Panel

The console headphone output is configured using the Headphones Panel, on the Master Screen in the Setup Menu > Headphones.



There are 5 choices for the source of the headphones; Solo 1, Solo 2, Speakers, Auxes or Groups.

If Solo 1 or Solo 2 is pressed, the headphone output will carry the audio on the selected solo buss.

If Speakers is selected, the headphones will follow the monitoring source as set by the source selection in the monitoring setup.

Note : When Speakers is selected, the level of the headphones is set by the headphone controls, not the speaker controls. Speaker Mute and Speaker Dim will not affect the headphone level.

The Groups and Auxes buttons allow you to set the headphones to follow any single buss. For Example, if you always want to listen to the Master buss on the headphones, press the groups button, then select the Master Group buss from the list of group busses.

Note : When a new session is started, there is no default headphone source, and the headphone output will not pass audio.

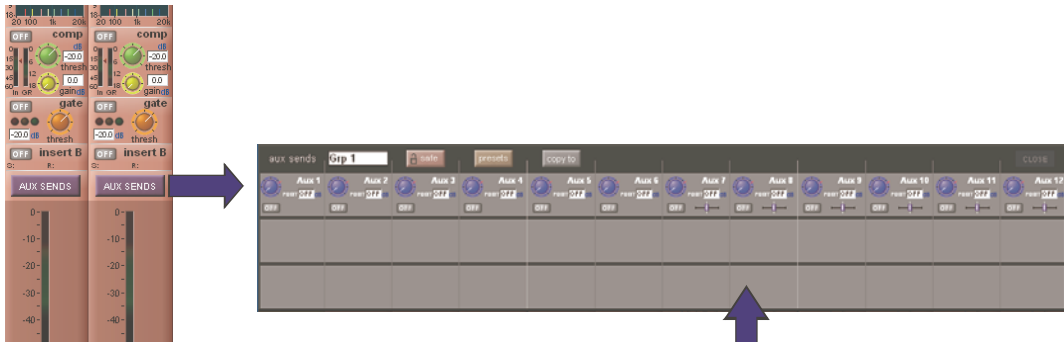
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1.2.11 Auxes On Group Busses

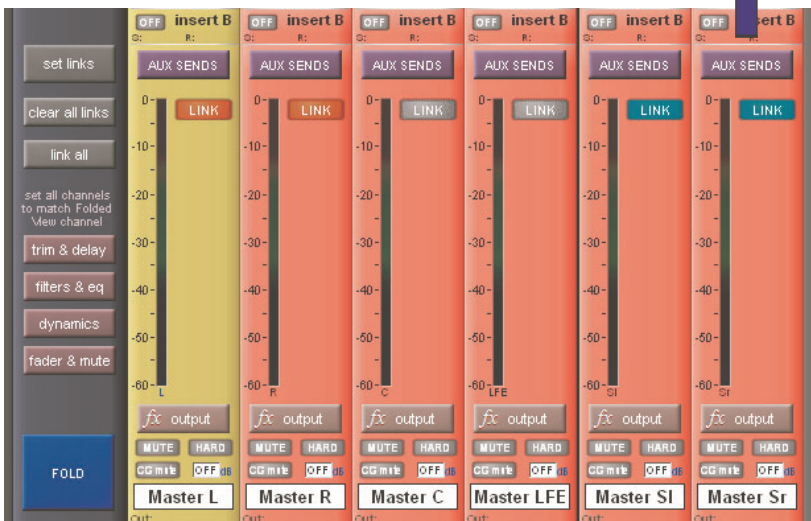
Auxiliary sends are also available on group busses.

A button labelled **Aux Sends** is displayed on mono groups and on each leg of unfolded groups which opens the expanded auxes panel for adjustment of the individual Aux Sends on a per channel (buss leg) basis.

In Snapshot Scope there is a **Sends** column entry in the Group Outputs row which allows the Recall and Update scope of these sends to be adjusted.



Mono Bus



Unfolded 5.1 Bus

1.2.12 Buss Upmix/Downmix

Group to Group Upmix/Downmix settings can be specified per group.

Open the Outputs panel by touching at the bottom of a Group channel and an **Up/Down Mix** button is displayed just beneath the Group Buss routing buttons.

This behaves identically to the equivalent **Speaker Feeds** controls on the Monitor Matrix Sources panel (see Monitor Matrix section of this manual).

There is also a **Copy From** button which pops up a list of other groups of the same width - touch one to copy its Upmix/Downmix settings. These settings are also included when using Channel Copy To/From, if the Groups scope button is pressed and the source and destination groups are the same width.

Settings are stored per session; they are not included in snapshots or presets.



DiGiCo SD Series Broadcast Options

1.2.13 Audio Follows Video

Audio follows video functionality is achieved using incoming GPI's to trigger Snapshots using the console's Macro facility.

1) In the **Master screen > Snapshot** panel, create one snapshot for each camera that stores the relevant settings for the audio in that location.

Adjust the console settings and press the **Insert New** button to create the Snapshot.

2) Program crossfades as required for each snapshot.

Select a snapshot from the list, press the **Scope** button and then press the **Crossfades** button.

Expand the Input Channels section of the Crossfades panel by pressing the down arrow next to the Input Channels entry.

Select the relevant channel controls (eg faders) and then touch the data entry area (secs/frames) at the bottom of the panel.

Now use the worksurface Touch Turn control to enter a crossfade time.

Create one snapshot for each camera
Crossfade times applied as required on individual faders
for each snapshot

channel name	trim/delay	filters	eq	dynamics	sends	fader	panner
▲ Input Channels	00.00	00.00	00.00	00.00	00.00	01.00	00.00
1 Ch 1	00.00	00.00	00.00	00.00	00.00	01.00	00.00
2 Ch 2	00.00	00.00	00.00	00.00	00.00	01.00	00.00
3 Ch 3	00.00	00.00	00.00	00.00	00.00	01.00	00.00
4 Ch 4	00.00	00.00	00.00	00.00	00.00	01.00	00.00
5 Ch 5	00.00	00.00	00.00	00.00	00.00	00.00	00.00
6 Ch 6	00.00	00.00	00.00	00.00	00.00	00.00	00.00
7 Ch 7	00.00	00.00	00.00	00.00	00.00	00.00	00.00
8 Ch 8	00.00	00.00	00.00	00.00	00.00	00.00	00.00
9 Ch 9	00.00	00.00	00.00	00.00	00.00	00.00	00.00
10 Ch 10	00.00	00.00	00.00	00.00	00.00	00.00	00.00
11 Ch 11	00.00	00.00	00.00	00.00	00.00	00.00	00.00
12 Ch 12	00.00	00.00	00.00	00.00	00.00	00.00	00.00
13 Ch 13	00.00	00.00	00.00	00.00	00.00	00.00	00.00
14 Ch 14	00.00	00.00	00.00	00.00	00.00	00.00	00.00
15 Ch 15	00.00	00.00	00.00	00.00	00.00	00.00	00.00
16 Ch 16	00.00	00.00	00.00	00.00	00.00	00.00	00.00
17 Ch 17	00.00	00.00	00.00	00.00	00.00	00.00	00.00

3) Create one Macro for each snapshot that is to be triggered by the relevant GPI.

Open the Master screen > **Setup > Macros** panel and press the **New** button

In the **Command Types** column, select **Snapshots panel**.

In the **Commands** column select **Fire Snapshot** and then enter the relevant Snapshot number in the data column.

In the example below, a Macro named Camera 1 is triggered by GPI 1 and this in turn fires Snapshot 1

Create a new Macro

Trigger with GPI 1