GS3

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ALLEN & HEATH

Mute Automation for the Compact Studio

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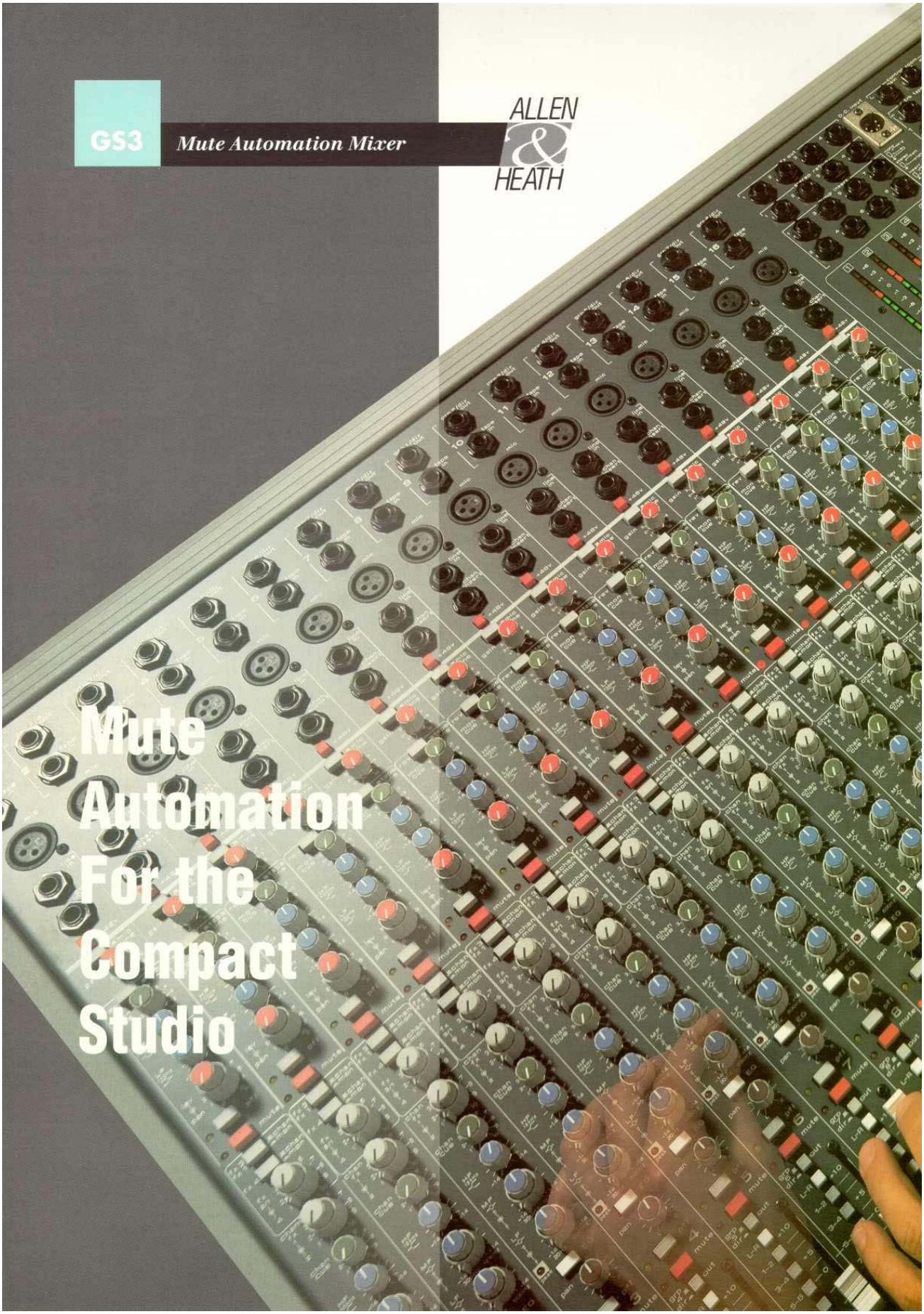

Mute Automation For the Compact Studio



GS3

Mute Automation Mixer

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The GS3 represents a new generation of recording mixers. Its inline design makes it the perfect partner for 8 TRACK, 12 TRACK, 16 TRACK and 24 TRACK tape machines. GS3 is available in 16 CHANNEL and 24 CHANNEL formats, both with 8 group busses, 6 auxiliary sends, 4 stereo returns and external power supply.

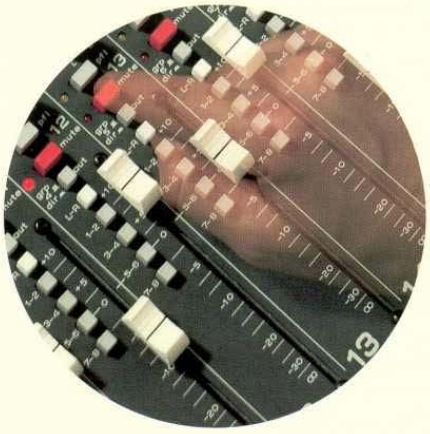
FUNCTION keys allow any MIDI message to be learnt and stored, enabling instant fingertip access to a midi-output command. There are seven keys with a separate button-down and button-release message, with access to 'F7' via the foot control input jack. Remote switching of sequencers/tape machine transports, mute snapshots, sound effects or any MIDI command is a unique and revolutionary feature of the **GS3**, offering central control from the console over today's MIDI studio environment.





'MULTIAUX' allows a comprehensive selection of Effect and Cue sends between the input channels and monitor channels with the advantage of simultaneous access to effects from both.

THE add-on expander unit not only gives eight extra channels of inputs, but eight tape return/line inputs and eight additional tape outputs. The unit is easily installed by removing the base plate, relocating the right hand side panel and connecting two multi-pin plugs. Both 16 channel and 24 channel models can be expanded up to a 32 channel configuration, offering 72 inputs on mixdown all with EQ, auxiliary sends and mute automation.



EVEN with two pairs of hands and an elephantine memory it is impossible to reproduce accurately the operations required for sound mixing of today's multitrack and live-MIDI music. **ALLEN & HEATH** have designed the **GS3** to free the musician from the physical constraints that compromise creativity.



THE V4-plus mute automation allows full control over channels, monitors, FX send masters and stereo FX returns. The powerful internal sequencer is synchronised by the use of 'MIDI Clocks', and utilises MIDI song positions to store 'Mutes' and 'Snap Shots' in realtime. A working song can be stored internally in one of the 32 song memory locations with power-off battery backup. The sequencer memory provides automatic record drop in/out for hands free operation. The comprehensive editing functions include: erase last event, erase forward and erase or isolate channels. Console mode allows eight levels of control of mutes and snapshots either by note on/note off or controller codes. External sequencers can be used to access all functions of the **GS3** including archiving of MIDI data.

GS3 *Spec Check*

Input Module



- Phantom power switch for XLR
- Channel input select
  - MIC (XLR) connector
  - line (JACK) connector
- Channel input gain control
- Monitor/channel source reverse switch
- Monitor pre-fade cue send

2-band EQ, 10kHz and 100kHz, with cut/boost of 14dB

- Monitor level and pan to left and right mix buss
- Pre-fade listen solo
- Monitor Automated mute soft-switch

MultiAux FX sends 1,2,3 & 4 (post-fade)

SELECT SWITCHES

Both up	Upper down	Lower down	Both down
Chan to 3	Mon to 1	Chan to 3	Mon to1
Chan to 4	Chan to 4	Mon to 4	Mon to 4
Chan to 1	Chan to 1	Chan to 1	Chan to 1
Chan to 2	Chan to 2	Chan to 2	Chan to 2

- Channel pre-fade cue send

Channel 3-band EQ features
cut/boost of 14dB and EQ bypass
12kHz high frequency
300Hz to 12kHz mid sweep
20Hz to 500Hz low sweep

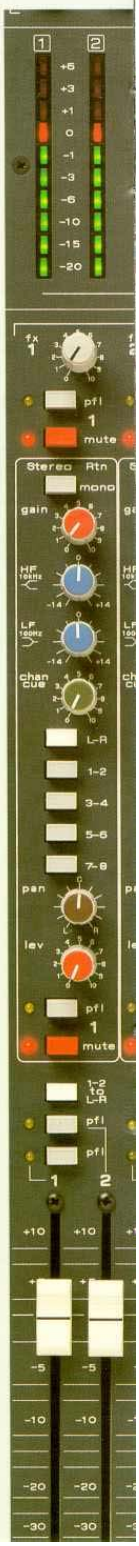
Peak level warning indicator

- Pan control for mix and routing busses
- Channel pre-fade listen solo
- Channel Automated mute soft switch

Group/direct switch

Switches the individual channel output jacks between group output or channel direct output.
ie Channel 1: group output 1 or channel 1 direct output.
Channel 8: group output 8 or channel 8 direct output.
Channel 9: group output 1 or channel 9 direct output.

- Left and right mix buss routing switch
- 8 group output buss routing switches
- 100mm long travel fader



Connectors
Line in: mono jack. Tape in: mono jack. MIC/DI: balanced XLR.
Channel insert: stereo jack. Group/direct output: mono jack

Group outputs 1-8. FX send/return 1-4

8 group output meters (10-segment LED)

4 FX send master outputs, with pre-fade listen solo and automated mute soft-switch

- 4 stereo FX returns, with switch for a mono input
- Input gain

2-band EQ, 100Hz and 10kHz, with cut/boost of 14dB

- Cue send (pre-fade) to channel cue mix buss

Full routing to all mix busses

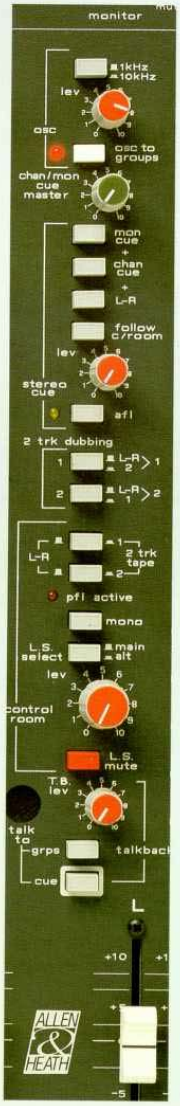
- Pan, or balance control in stereo mode
- Output level to busses
- Pre-fade listen solo
- Automated mute soft-switch

8 group pre-fade listen solos

Group output to left and right mix buss

- 8 100mm long travel group output faders

Master module



Twin frequency line-up oscillator 1kHz and 10kHz. Volume and send to groups

- Cue master output level control for channel cue and monitor cue outputs

Stereo cue for foldback can be selected between follow control room (L/R mix buss/tape replay) or any mixed combination of monitor cue send, channel cue send and left/right mix buss. Overall level control and after-fade listen check

- 2-track dubbing facility allows copying from and to each tape machine without the need to repatch
- Control room monitor select between, left/right mix buss, 2-track 1 or 2-track 2
- Mono listen select
- Alternate loudspeaker select
- Control room volume

Pre-fade active warning light

- Loudspeaker mute

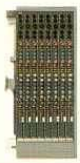
Internal talkback microphone, with level control and choice of path: groups and stereo cue output

- 2 100mm long travel left and right mix buss output faders
- Headphone stereo output (under arm rest)

Connectors

4 FX send: mono jack
4 FX return: stereo jack
8 group insert: stereo jack
Left control room output: mono jack
Right control room output: mono jack
Alternate loud speaker output: stereo jack (L=Tip, R=Ring)
Footpedal input: mono jack
Tape machine 1 L/R inputs: stereo jack
Tape machine 1 L/R outputs: stereo jack
Tape machine 2 L/R inputs: stereo jack
Tape machine 2 L/R outputs: stereo jack (L=Tip, R=Ring)
Left mix buss insert: stereo jack
Right mix buss insert: stereo jack (Send= Tip, Return= Ring)
Stereo cue output: stereo jack, (L=Tip, R=Ring)
Channel cue output: mono jack
Monitor cue output: mono jack
MIDI In/Out/Thru: 5-pin din
Headphone output: stereo jack (L=Tip, R=Ring)

GS3 *Specifications*

		Width	Depth	Height	Unit weight	Pack weight
		Dimensions Inches (mm)			lbs (kg)	lbs (kg)
	**GS3-16**	31 (785)	28.5 (725)	5.1 (130)	51 (23)	70 (32)
	**GS3-24**	41.5 (1055)	28.5 (725)	5.1 (130)	68 (31)	88 (40)
	**GS3-EX**	10.5 (270)	28.5 (725)	5.1 (130)	22 (10)	31 (14)
		Maximum configuration using add-on expander units is 32 channels				
	**POWER SUPPLY MPS9**	12 (300)	5.1 (110)	4 (100)	8 (3.5)	

MUTE AUTOMATION

- V4 PLUS
- Automation of Audio Mutes for channels, monitors, Aux sends and Aux returns
- Seven programmable 'function keys'
- 32 internal patch memories for mute 'snap-shots'
- 32 internal mute song sequence memories for synchronisation use
- On-board editing for individual events, erase all, erase forward and erase last
- On-board editing for patch recall events
- Channel-by-channel automation isolation
- Ultrafast automatic cueing after FF and REW operations
- Battery-back-up of memory contents and system default settings
- MIDI In, Out and Thru connections

BASIC MIDI IMPLEMENTATION

- MIDI Channel: user selectable 1-16
- Program Change: patch memory recall
- Control Change: mute ON/OFF (user option)
- Note ON/OFF: mute ON/OFF (user option)
- Advanced Note ON/OFF protocol avoids external sequencer 'throwout' problems
- System Exclusive: Allen & Heath User I.D.
- System Common/Real-Time received: Song Select, Song Position Pointer, Start, Stop, Continue, Clock

DEALER

AUDIO

OPERATING LEVELS	Multitrack inputs/outputs -10dBV 2-track inputs/outputs -10dBV FX, cue out etc 0dBu normal line level Inserts 0dBu normal line level
FREQUENCY RESPONSE	20Hz to 20kHz +0dB, -1dB
NOISE	Measured RMS 22Hz to 22kHz Microphone EIN -127 dBu source = 150 ohm LR Mix noise -80 dB ref 0VU Group mix noise -80 dB ref 0VU
CROSSTALK	Better than -80dB @ 1kHz
DISTORTION	THD typically less than 0.008% at 1kHz less than 0.02% @ 10kHz
GAIN	Mic input variable from +10dB to +70dB Line input variable from -10dB to +20dB +10dB available at each fader
MAXIMUM OUTPUT LEVEL	+21 dBu into 2k ohms minimum load

Figures quoted are typical of the 16 channel *GS3*
0dBu = 0.775V RMS
0dBV = 1V RMS
0VU = -10dBV

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