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DESIGNED FOR A PURE PERFORMANCE



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Introducing The Midas Heritage 1000

Midas is proud to introduce the Heritage Series of audio mixing consoles, the latest in the Midas tradition of impeccable sonic quality and outstanding technical specifications. These three new consoles represent the state of the art in audio mixing technology, with features and electronics developed in direct response to the outstanding success of the Midas XL3 and XL4 consoles during the 1990s. Midas has been designing and manufacturing live performance mixing consoles for the world's most demanding sound engineers, performers and production rental companies since the early 1970s. The evolution of Midas consoles throughout the 30-year history of this classic marque has always paralleled, and often led, increasingly sophisticated audio innovations for the world-wide entertainment technology industry. Raising the standards of sonic quality through continual research and development has always been - and still remains - our overall aim. Equally important to us is the design and implementation of many new areas of control functionality and user-friendly desk operation to anticipate and accommodate the rapidly changing and expanding needs of audio professionals who specify Midas consoles for their major tours, festivals, international events, broadcast projects and prestigious fixed installations. The Midas design pedigree has, since our birth, been founded upon a track record of achieving a unique symbiosis with working sound engineers around the planet - engineers who respect and endorse our proven technology in the light of their responsibilities to their internationally-based clients who are themselves the leading

lights of our industry. The introduction of the Midas Heritage 1000 console is a landmark event for audio professionals everywhere. Following the phenomenal success of the Heritage 3000 and 2000 series consoles, the Heritage 1000 brings the unmistakable sound and legendary engineering quality of the Midas brand to a whole new audience.

Although the 1000-series console is the lowest-cost item of the Heritage series, in this case low cost does not equate to inferior performance. In fact, quite the reverse is true, since the audio performance of the 1000 is superior to consoles of vastly higher cost. The new price point has been achieved by creating a console to suit a wide variety of applications by concentrating on core operational features, whilst retaining all the traditional Midas values. The result is an extremely flexible, professional audio tool of the highest quality, yet still able to fit into budgets that previously were unable to accommodate a Midas console.

At the heart of every Heritage console is the Midas sound. It is this often-imitated but never-equalled performance that makes Midas consoles the choice of discerning audio professionals world-wide. The Heritage 1000 maintains this reputation through the inclusion of the famous XL4 microphone pre-amplifier and EQ section. Extremely quiet input stages combined with the legendary Midas EQ allow the user to optimise and control incoming signals from any source. Military grade components throughout the console ensure the longest possible working life.

Another key design principle for Heritage 1000 is its physical size. More and more applications, (specifically theatre and corporate / AV use), require high-specification, multiple output consoles that take up the least possible space. Heritage 1000 provides the features and audio performance demanded in these situations in a compact and easily transportable frame size. Various frame sizes are available, as well as extender consoles. All Heritage series consoles may be bussed together to allow total configurability according to the application.

Just like the Heritage 3000 and 2000 consoles, the 1000-series is manufactured almost entirely by hand in Kidderminster, England. Although this process is costly and time-consuming, it is a fundamental issue in the creation of all Midas consoles and is the only method by which the standards of engineering expected of the brand can be maintained. In common with all Midas consoles, the Heritage 1000 carries a full three-year factory warranty, plus the support of a global distributor network.

The Heritage 1000 series - Fits your budget, your application.....and your backseat



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Mono Input Module

The HS1001 Mono Input Module is a comprehensive mic/line channel strip incorporating the legendary XL4 microphone pre-amp. This works in conjunction with the classic MIDAS 4-band equaliser, featuring two fully parametric mid sections, plus variable frequency high and low shelving filters with adjustable frequency ranges (2kHz to 20kHz and 20Hz to 200Hz respectively). The channel insert point may be switched pre or post the channel equaliser, and a full-time direct output is switchable pre or post fader. Input pad, phase and phantom power switches are fitted along with a secondary 'B' input selectable in the input section. This provides a convenient method of switching in a backup source in critical applications. A further high-pass filter, variable from 20Hz to 400Hz may be switched in before the main equaliser.

Ten mono aux controls may be individually assigned to pre or post-fade operation and Aux 7 to 10 may be configured as stereo pairs with level and pan control if required. Aux send on/off switching is handled via the console assignment system.

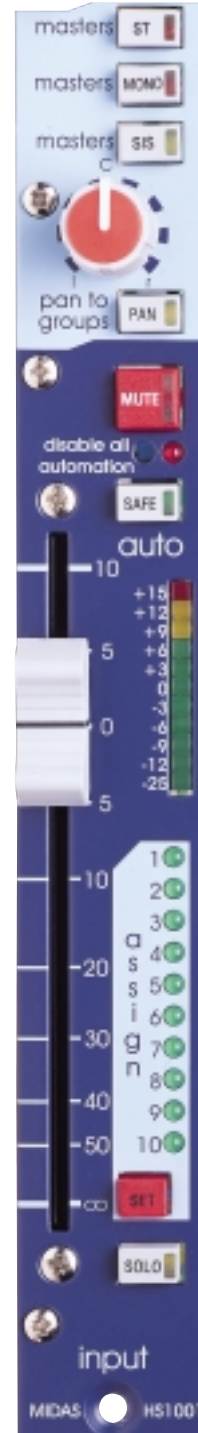
Each mono channel features stereo and mono bus switching as well as the MIDAS SIS spatial imaging system for use with Left, Centre Right loudspeaker systems.

Adjacent to the fader are 10 Assign LEDs which show the Aux, VCA and Mute assignments. Assignment is controlled by the central console in conjunction with the local Set button at the bottom of the channel fader.

Pre-fade metering is provided close to the fader and a large, illuminated Mute button may be used for manual channel muting or may be controlled from the snapshot/automute automation system. The Solo button sends the channel signal to the PFL mono and AFL stereo

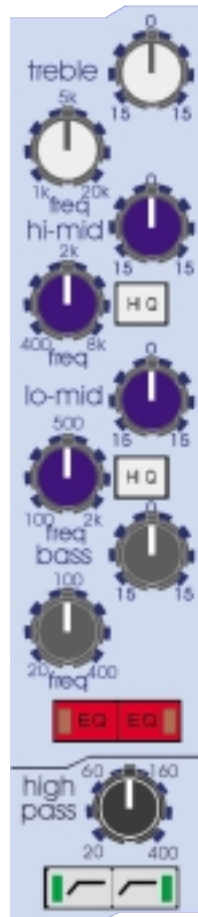
busses. If pressed briefly, this switch will latch, whereas if it is pressed and held for longer than 1 second, it will switch off as soon as released.

All the assignments can be recalled by the automation system. A Safe switch removes the entire channel from automation control. Total isolated can be achieved by using the recessed Automation Disable switch, which also brings up a set of channel default settings. This provides contingency in the event of a local automation failure.



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Stereo Input Module



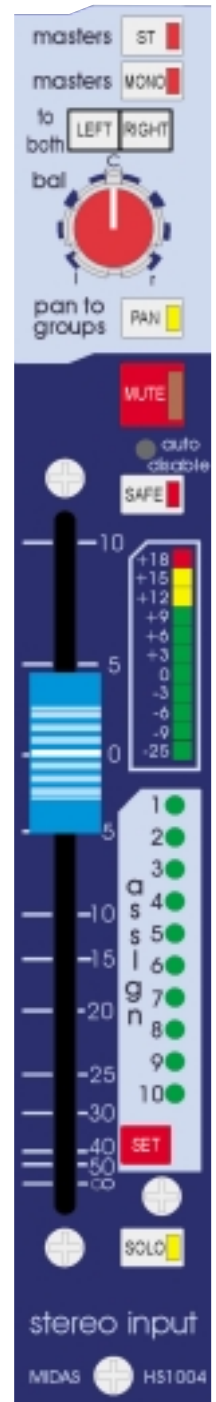
Like the HS1001 Mono Input Module, the HS1004 stereo is a comprehensive, mic/line channel strip and incorporates a classic MIDAS 4-band equaliser that features two quasi parametric mid sections (switchable Q; 1.5 or 0.5 octaves) plus variable frequency high and low filters

with adjustable frequency ranges (1kHz to 20kHz and 20Hz to 400Hz respectively). Each channel of the equaliser may be bypassed separately. Input pad, phase and phantom powers switches are fitted along with separate high-pass filters (pre-insert) for each channel.

Ten mono aux controls may be individually assigned to pre or post-fade operation; aux 7 to 10 may be configured as stereo pairs if required. Aux send on/off switching is handled via the console assignment system.

Each stereo channel features stereo and mono bus switching.

Adjacent to the fader are 10 Assign LEDs which show the Aux, VCA and Mute assignments. Assignment is controlled by the central console in conjunction with the local Set button at the bottom of the channel fader. Pre-fade metering is provided close to the fader and a large, illuminated Mute button may be used for manual channel muting or may be controlled from the snapshot/automute automation system. The Solo button sends the channel signal to the PFL mono and AFL stereo busses. If pressed briefly, this switch will latch, whereas if it is pressed and held for longer than 1 second, it will switch off as soon as released. All the assignments can be recalled by the automation system. A Safe switch removes the entire channel from automation control. Total isolated can be achieved by using the recessed Automation Disable switch, which also brings up a set of channel default settings. This provides contingency in the event of a local automation failure.



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Group / Stereo Aux Module

The HS0012 Group Module provides a highly flexible Group master control strip with one Group master fader, one VCA master fader and an Aux Master level control. A high resolution meter monitors the peak signal level of the post-fader subgroup outputs and an additional Bus Peak LED warns if the pre-insert subgroup bus signals are close to clipping. A Meter to Aux switch enables the meter to be used to monitor the Aux levels in place of the sub-groups signals.

The Aux Master section features Talk and Phase switches while its Mute switch may be operated manually or by means of the automation system. A rotary control sets the aux output level and both Solo and Safe switches are fitted.

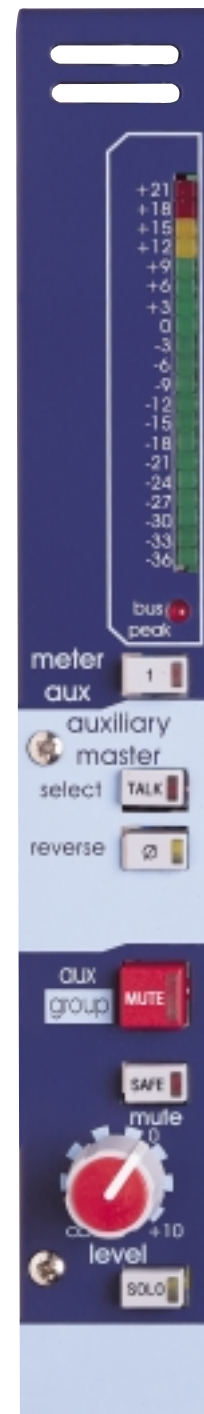
The Group Master fader section incorporates Safe and Solo buttons as well as Pan, Mute and routing to both the master stereo and mono busses. The same SIS features are provided as for the main channels. Mute and Safe switches are also provided for the VCA Master Fader. A row of 11 LEDs alongside the fader indicates the current VCA setting. Fader modes are selected from the central controller section.

A Fader Swap switch swaps the group output faders and the aux master level controls along with their solo and mute switches. This does not affect the inserts or XLR outputs.

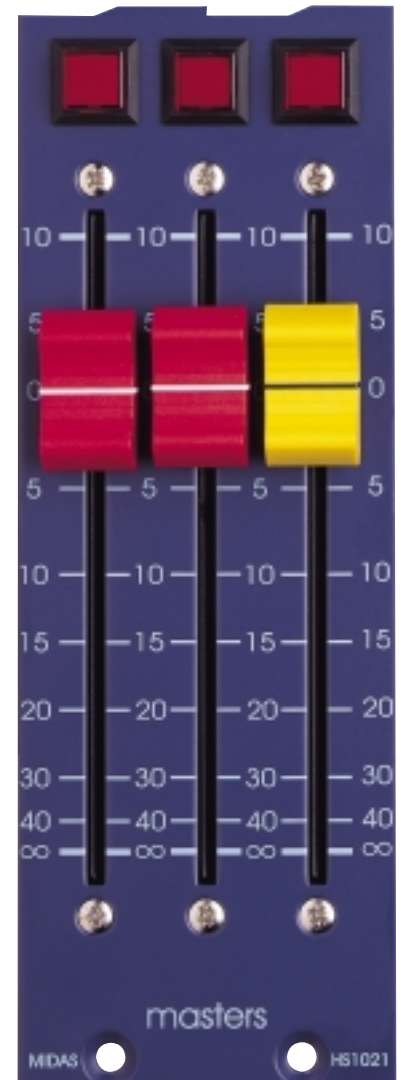
MIDAS HS1012 Stereo Aux Group Module

The Stereo Aux Group Module is the same as the HS1011 Group module but it has an additional Master Stereo Aux switch which switches the input module aux sends to stereo level and pan pairs on busses 7/8 and 9/10. MIDAS HS1004 Stereo Input Module

Like the HS1001 Mono Input Module, the HS1004 stereo is a comprehensive, mic/line channel strip and incorporates a classic MIDAS 4-band equaliser that features two quasi parametric mid sections (switchable Q; 1.5 or 0.5



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The HS 1021 Masters Module provide three sets of Master and three sets of Monitor high resolution meters as well as three Master faders. These may easily be customised to appear as Left, Right Mono, Left Centre Right and so on. Each has a Mute switch, but these are not linked to the snapshot automation system. Control is provided for the console lamp brightness and there's an external tape feed that

may be routed to any combination of the stereo and mono busses. A continuously variable oscillator (50Hz to 5kHz) is fitted in addition to a pink noise generator and the signal generator output may be routed to the console's internal Talk busses as well as the external Talk XLR. Full talkback facilities are fitted via a 150 ohm microphone input socket. A Stereo Solo Trim control is fitted as is Mono routing to send the

post-fader mono master mix to the local monitor out. A SIS switch routes solo signals to both stereo and mono local monitor outputs, overriding signals from all other sources. Local monitor and level controls are fitted as is a comprehensive headphone monitor section. The Solo On/Clear switch illuminates when any solo switch is active and clears any active solo switches when pressed.

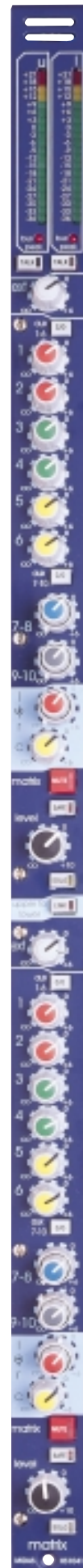
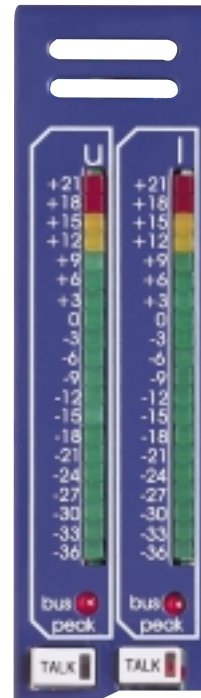
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Matrix Module

Each HS1041 dual Matrix Module provides post fader level metering plus Talk buttons that may be used to include the matrix outputs in the talkback system. Safe buttons remove the matrix output from snapshot automation control and Solo switches send the matrix signals to the PFL mono and AFL buses.

Matrix sends are provided for mono sends 1 to 6 and the Aux 1-6 To Mtx switch enables matrix inputs 1 to 6 to be sourced from the aux outputs rather than the group outputs. A similar switching arrangement is provided for aux 7 to 10. Separate Left/Right and Centre level controls are fitted and the master matrix level control is fitted with both Mute and Safe switches.

A link switch feeds the upper matrix into the lower matrix so that the lower matrix carries a mix of both. Up to 16 matrix modules can be fitted providing a 25 by 16 matrix with the link switch assigned on all modules (13 by 32 when unassigned).



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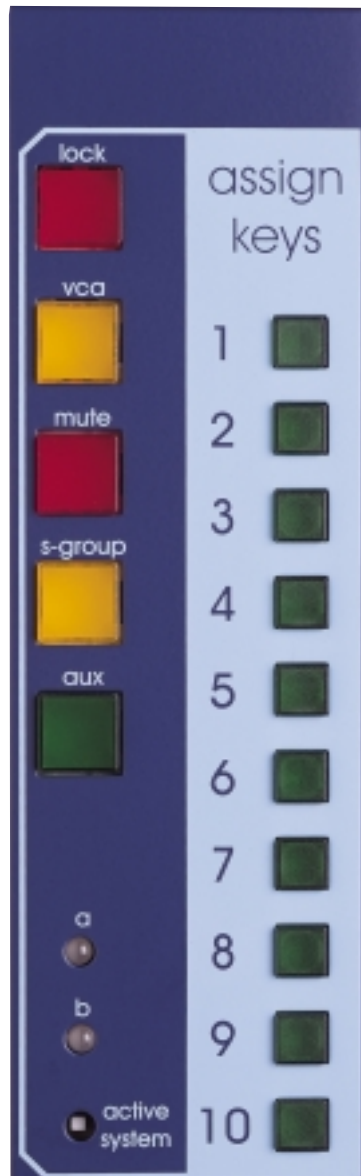
Automation Module

The HS 1033 Automation module handles the channel assignment as well as the mute and snapshot automation. Separate VCA, Mute, S-Group and Aux switches determine which assignment mode is operational. These are used in conjunction with the channel Set buttons. Automation is via an intuitive VCA automation system designed specifically for live performance. Numerical readouts of Act and Scene numbers are provided and there's direct Fast Key access to the ten most commonly used snapshots as set up by the user. Snapshots may be stored as either acts or scenes where scenes are organised as sub-sets of acts. Alternatively, scenes may be recalled directly via MIDI. A check mode is provided so that virtual fader positions for a newly recalled scene can be viewed before making that scene active.

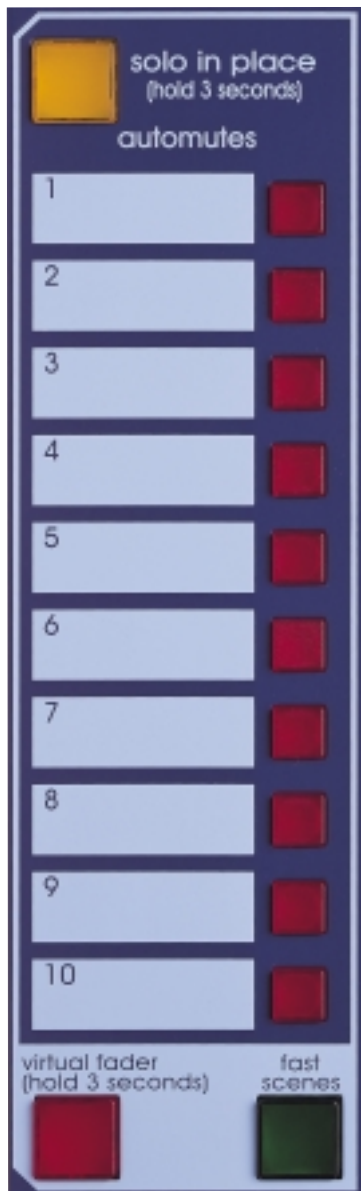
The automation data is read from a micro card (up to two may be installed at any one time) and status LEDs show whether the automation is active or inactive. Where two cards are installed, a switch is used to select whether card A or B is active. Comprehensive automation and MIDI editing is provided, though this may be disabled during performance if required for security reasons.

The fader automation operates in either Real Fader mode or Virtual Fader mode. In Real Fader mode, the signal levels are controlled by the physical faders while in Virtual mode, they are controlled by the VCA automation system. In virtual mode, the 11 meter LEDs adjacent to the faders show the VCA gain setting regardless of the physical fader position.

In Real Fader mode, the automation system can still provide visual prompts via the status LEDs. Comprehensive editing facilities are provided, including the ability to edit, insert or copy scenes.



Automation Module



Performance Specifications

Input Impedance	Mic Line	2k Balanced 20k Balanced
Input Gain	Mic Mic + Pad Line Level Inputs	Continuously variable from all faders at 0dB + 15dB to + 60dB Continuously variable from - 15dB to + 30dB 0dB
Maximum Input Level	Mic Mic + Pad Line Level Inputs	+6dBu +31dBu +21dBu
CMR at 1kHz	Mic (gain + 40dB) Mic +Pad (gain 0dB)	80dB 50dB
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 40dB)	+0dB to -1dB
Noise (20 to 20kHz)	Mic EIN ref.150W (gain + 60dB)	-128dBu
System Noise (20 to 20kHz)	Summing Noise (48 channels routed with faders down) Line to Mix Noise (48 channels routed at 0dB, pan centre)	-80dB -75dB
Distortion at 1kHz	Mic to Mix (+ 40dB gain, 0dBu output)	0.03%
Crosstalk at 1kHz	Channel to Channel Mix to Mix Channel to Mix Maximum Fader attenuation	-90dB -90dB -90dB 80dB
Output Impedance	All Line Outputs Headphones	50 Ohms Balanced Source to drive 600W to drive 8W
Maximum Output Level	All Line Outputs Headphones	+21dBu +21dBu
Nominal Signal Level	Mic Line Headphones	-60dBu to +10dBu 0dBu +10dBu
Equaliser	Hi pass Slope Hi pass Frequency Treble Gain Treble Shelving Freq. Hi Mid Gain Hi Mid Freq. Hi Mid Bandwidth Lo Mid Gain Lo Mid Freq Lo Mid Bandwidth Bass Gain Bass Shelving Freq	12dB / Oct -3dB point from 20Hz to 400Hz +15 dB to -5dB Centre detent = 0dB -3dB point from 1k to 20k +15dB to -15dB Centre detent = 0dB centre from 400Hz to 8k 0.1 Oct. to 2 Oct Centre detent = 0.5 Oct +15 dB to -15 dB Centre detent = 0dB centre from 100Hz to 2k 0.1 Oct. to 2 Oct Centre detent = 0.5 Oct +15dB to -15dB Centre detent = 0dB - 3dB point from 20Hz to 400Hz

Overview and Statistics



The Heritage 1000 is a 26 buss console with an additional 13 x 8 output matrix.

The busses are

10 audio groups	= 10
6 mono aux	= 6
2 stereo aux	= 4
1 stereo master	= 2
1 mono master	= 1
1 stereo AFL	= 2
1 mono PFL	= 1
TOTAL	= 26

10 automute sub groups and 10 VCA sub groups which include VCA sub group muting.

48 input channels.

A total XLR input count of 134 are

- 48 channel mic inputs
- 48 B channel mic inputs
- 10 group bus injects
- 10 aux bus injects
- 8 matrix bus direct inputs
- 3 solo bus inject inputs
- 2 external inputs (2 track return)
- 3 master bus inject
- 1 talk mic input
- 1 talk external input

A total XLR output count of 38 are

- 10 audio group outputs
- 10 aux outputs
- 8 matrix outputs
- 3 master outputs
- 3 solo outputs
- 3 local outputs
- 1 talk external output

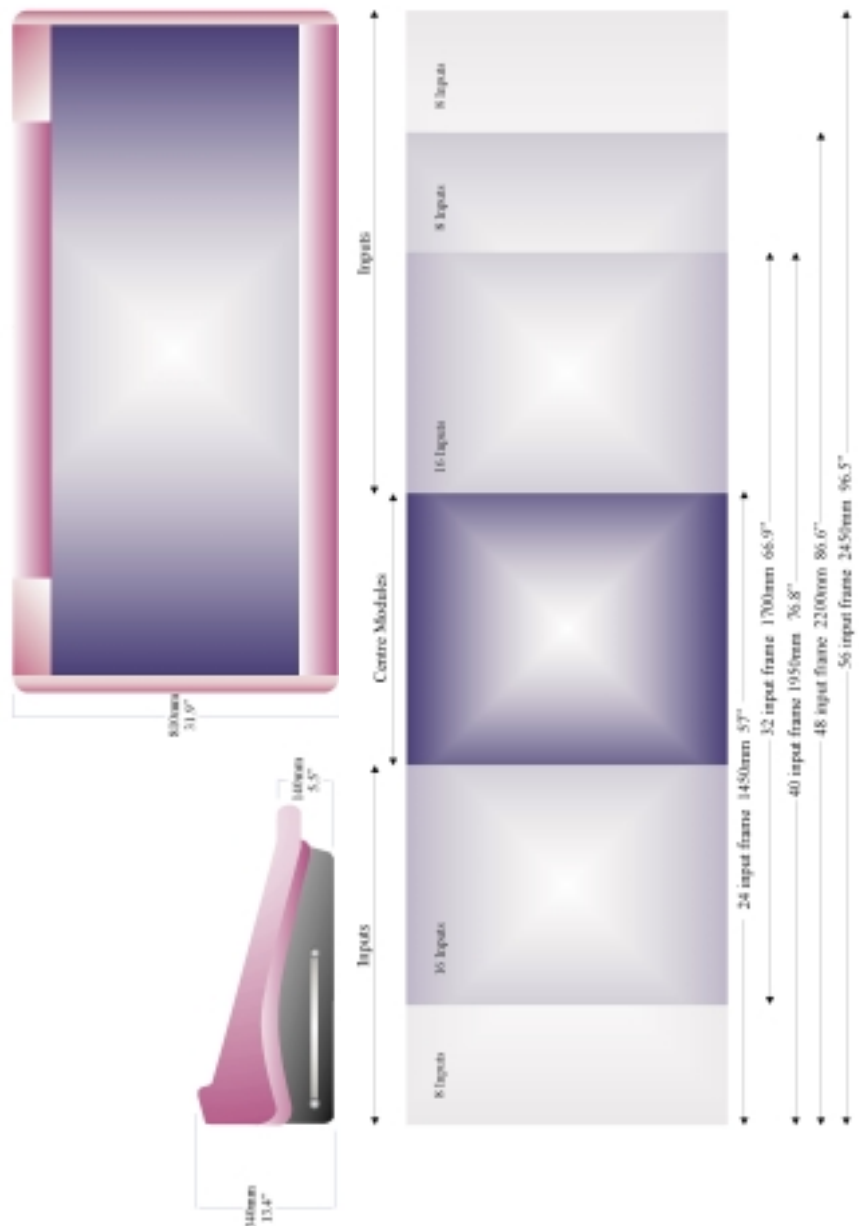
A total of 254 balanced 1/4 inch jacks for inserts are

- 48 input channel insert sends
- 48 input channel insert returns
- 10 audio group insert sends
- 10 audio group insert returns
- 10 aux insert sends
- 10 aux insert returns
- 8 matrix insert sends
- 8 matrix insert returns
- 3 master insert sends
- 3 master insert returns
- (48 channel line inputs)
- (48 channel direct outputs)

71 long throw faders for mix control

1539 automated switch functions are

- 48 input channel aux virtual assign switches
- 480 input channel VCA sub group virtual assign switches
- 480 input channel mute sub group virtual assign switches
- 48 input channel mute switches
- 10 audio sub group mute switches
- 10 aux mute switches
- 10 auto mute switches
- 10 VCA master mute switches
- 8 matrix mute switches
- 3 master mute switches



Packing Specifications (not including flight case)

56 input frame	374.8lb	170kg
48 input frame	308.6lb	140kg
40 input frame	242.5lb	110kg
32 input frame	176.4lb	80kg
24 input frame	110.2lb	50kg
XL 2900 PSU's inc cables (x2)	97.0lb	44kg

The Heritage 1000 has a total of 70 peak program meters with 20 LED segments on all outputs and 11 LED segments on input channels.

KLARK TEKNIK GROUP



KLARK TEKNIK
SIGNAL PROCESSING BY DEFINITION



DIDA
BETTER BY DESIGN



MIDAS
DESIGNED FOR A PURE PERFORMANCE

"Celebrating their 30th Anniversary in 2000, the Midas name has long represented the pinnacle of live console design and engineering. Though many things have changed in the past 30 years, the fundamental principles applied by Midas remain the same: to provide the professional sound engineer with the ultimate in audio quality, flexibility and reliability.

The legendary XL3 was launched in 1990 and was joined by the unique XL4 in 1995. The range has been subsequently expanded with the launch of the XL200 and XL250 consoles, making the great Midas sound accessible to a whole new market. 1999 saw the launch of the Heritage Series, the most popular analogue live sound reinforcement consoles of recent years.'



"At the forefront of professional signal processing since their conception, Klark Teknik celebrated their first quarter-century in 1999. From their industry-standard analogue graphic equalisers to the leading edge technology of their digital units, Klark Teknik continues to be the first choice for audio professionals around the world. The year 2000 also marks the introduction of several groundbreaking new products."

DDA has established a reputation for designing and manufacturing live performance and recording production consoles of outstanding quality. DDA consoles are used in some of the most prestigious studios and concert venues around the world.

Klark Teknik Group

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