DS-M7.1 Digital Surround Monitor Controller

- ▶ Up to 7.1-channel surround monitor control from nearly any console or DAW
- ▶ Standard 8-channel TDIF, AES/EBU and ADAT connections for a stem recorder
- ▶ 8 input channels, 8 output channels
- ▶ 44.1, 48, 88.2, or 96kHz operation
- ▶ Pull up/down operation via external master clock
- ▶ Flexible downmixing options
- ▶ Built-in Pink Noise generator for monitor calibration
- ▶ Individual channel Mute/ Solo
- ▶ LED SPL display
- ▶ Individual channel delay compensation
- ▶ Standard monitoring controls like adjustable Dim, Mono and Alternate speakers
- ▶ Surround Bass Management
- ▶ Integrates with your existing control room monitor output

Designed for the needs of surround production studios, the DS-M7.1 is a complete monitor control solution for tracking and mixing in surround. With its 96kHz/24-bit digital processing and flexible routing and downmix capabilities, the DS-M7.1 is a powerful yet affordable monitor solution for studios ready for the future of surround audio.

The DS-M7.1 supports nearly every surround format, including mono, stereo, LCRS, 5.1, 6.1 and 7.1. Its downmix feature allows you to hear the effect of

playing back your surround mix folded down to stereo or mono for compatibility. Monitor outputs are provided in balanced analog and AES/EBU output formats for more options when wiring your studio.

The DS-M7.1 has digital inputs for your console, tracking recorder and master recorder. These inputs not only allow it to control your studio monitoring, but also allows flexible signal routing options. For example, you may have one session which uses your console's buss outputs to record to a tracking recorder, followed by another session using the console's outputs to mix in surround to a mixdown deck. With the DS-M7.1 dedicated I/O and front-panel buttons, you don't need to repatch as your session requirements change.

Inputs and outputs for your console,

plus tracking and mixdown recorders are provided in several digital formats, from TDIF to AES/EBU and ADAT optical. If you require a different digital format than the one provided, optional card slots allow you to specify the format of your digital I/O, or even add analog inputs and outputs. An AES/EBU insert jack is also provided, to hear the results of digital encoding like Dolby Digital® and DTS®, and its I/O can also be changed to another digital or analog format.

The front panel of the DS-M7.1 is removable for placement on a console, while the processor sits in an equipment rack or machine room. A pair of balanced Stereo Control Room outputs, selectable at the touch of a button, allow you to check your mix in stereo on another pair of monitors. The Output Level control has an SPL reference display for consistent listening levels. The DS-M7.1 also provides bass management, and each output channel has its own mute/solo button so that individual channels can be checked for noises or other problems. For surround monitoring control in applications including post-production for film and video, surround production for music, creation of audio for video games and multimedia, theatrical production and television broadcast, the DS-M7.1 represents a powerful yet affordable solution.

TASCAM®

DAW Monitoring

As the mixers built into Digital Audio Workstations become more capable, many professional and project studios are recording and mixing all of their audio on one computer workstation such as Pro Tools® or Nuendo®.

With the DS-M7.1, the digital outputs of the DAW can be connected directly to the Console Inputs of the DS-M7.1. Since these are digital connections, you don't need to purchase extra D/A converters in order to monitor your work in surround.

You can collapse your mix down to any surround format – from 7.1 to stereo – to check how it will sound on smaller systems. You can even monitor an independent stereo feed at the touch of a button. Your mix can easily be sent to an external dubber for recording, or you can simply bounce the mix internally. Between your DAW and the DS-M7.1, you can mix without a console for a compact yet incredibly powerful mixing system.
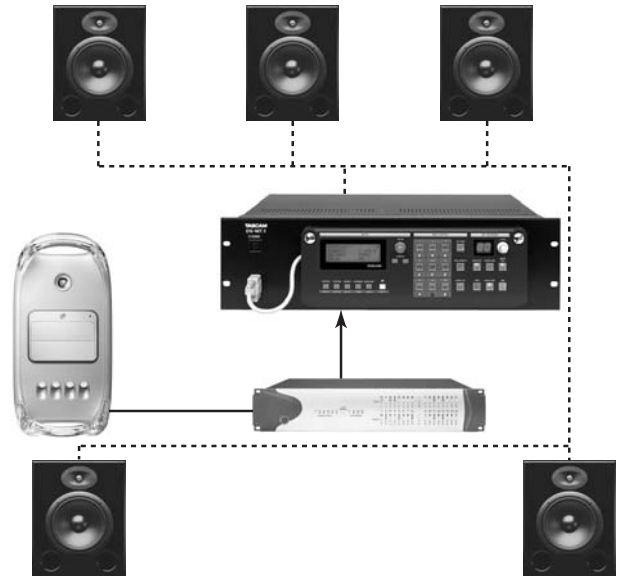
Digital Console Monitoring

In larger facilities, multitrack digital audio recorders like the MX-2424 often supplement DAWs to boost track count during mixdown. The system pictured here shows a studio mixing down a multitrack hard disk recorder through a digital console. The audio is being mixed to a multitrack tape recorder in discrete 7.1 surround.

In this application, the console can be connected to the Console In of the DS-M7.1. The multitrack hard disk is connected to the Track Recorder Inputs, and the tape-based stem recorder is connected to the Master Recorder I/O. If your equipment doesn't use the supplied TDIF, ADAT or AES/EBU digital formats, you can install other analog or digital interface cards into the rear-panel expansion slots.

The DS-M7.1 allows you to monitor at resolutions up to 96kHz/24-bit for detailed, holophonic surround mixes. You can monitor either the return from your master mixdown recorder or the console

bus outputs by pressing the BUS/RTN button. Plus, you can send the buss outputs directly to your track recorder allowing you to record to your multitrack without repatching. Just leave the DS-M7.1 connected and start mixing in surround at the touch of a button.
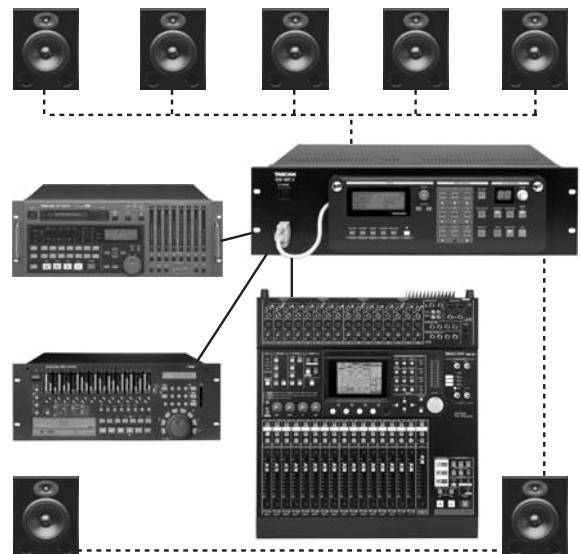
Presenation Authoring

The DS-M7.1 can be used to create exciting audio presentations in 5.1 surround. In this example, the surround outputs from a digital workstation or hard disk recorder are connected to the Master recorder inputs of the DS-M7.1.

The presentation can be created in any width from mono to 7.1, and the downmix feature allows you to monitor how a 5.1 presentation will sound through a stereo system. This important feature allows you to quickly create multiple mixes of a project in a variety of formats, and ensures that your presentation will dazzle no matter what the sound system may be.
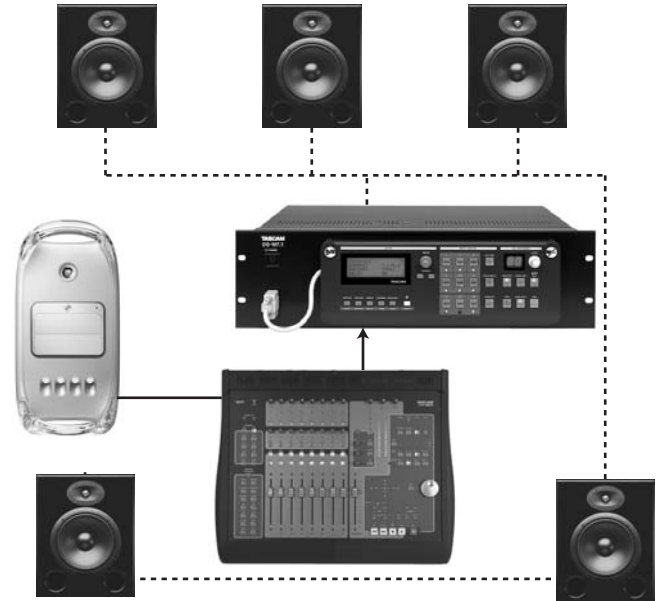
Signal Flow Diagram

With its flexible routing options, the DS-M7.1 links each of the components in your studio to create an integrated surround mixing system. Connections for your console, tracking recorder and mixdown recorder route your signal with 96kHz/24-bit digital precision, for the highest signal quality. Dedicated buttons on the DS-M7.1's removable front panel allow you to route signals through your studio without repatching, so that changing from a stereo tracking session to a surround mix session involves a few button presses.

The digital insert connection allows you to hear the effects of digital compression or a surround encoder such as Dolby Digital® or DTS® for total confidence in your mix. The output router sends your signal to a surround speaker setup, from mono up to 7.1 surround. Conveniences such as monitor Dim and Mono are also provided. In addition, flexible downmixing features allow you to hear your mix in any other format, including mono.
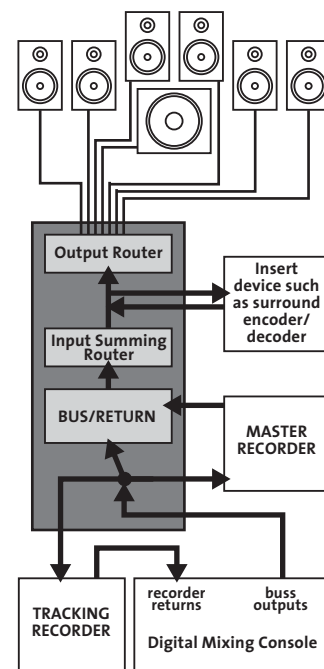
DS-M7.1 Connections

► DB25 TDIF 8-channel Console input and output

► DB25 TDIF 8-channel Track Recorder input and output

► DB25 AES/EBU 8-channel Insert input and output

► DB25 TDIF 8-channel Master Recorder input and output

► DB25 AES/EBU 8-channel Master Recorder input and output

► ADAT Optical 8-channel Master Recorder input and output

► BNC Word Sync In with 75Ω termination

► (2) 9-pin D-sub connections for remote control panel

► 9-pin D-dub RS-232C control input

► TRS 3.5mm jack for Mute/Dim remote

► DB25 AES/EBU 8-channel Monitor output

► DB25 analog 8-channel Monitor output

► (2) ¼" TRS Stereo Control Room outputs

► (3) 8-channel interface card slots for Console, Track Recorder and Insert I/O support optional analog, ADAT, TDIF, or AES/EBU expansion cards

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