

Tascam DS-M7.1

Adding digital surround monitor control to desks that lack its advanced functionality, Tascam's new box futureproofs the forward thinking facility. **ROB JAMES** ascertains that it's all in the presentation and in the application of the user.

THANKS TO THE ARRIVAL of affordable digital designs, consoles capable of mixing in surround formats are no longer solely the province of major facilities. However, as many people have discovered, there is more to making surround mixing easy and convenient than just the console. Monitoring control is one area that is rarely dealt with adequately by the console alone. As a result, a rash of analogue monitor controllers has arrived to fill the void. Since the consoles are digital, it might make more sense if the monitor controller was also digital with the analogue conversion at the end of the chain, just before the speakers.

Tascam obviously believes this to be the case, hence the DS-M7.1 digital surround monitor controller.

The unit comes in two parts, a 3U processing and interface box plus a separate control unit with all the buttons and knobs. This can be attached to the main unit or remotely sited up to 20m away. As the name implies, the DS-M7.1 will handle input formats from stereo up to 7.1 and output in anything from mono to 7.1. An input summing router enables downmixing if necessary, to feed an external encoder/decoder and a further router allows any input to be patched to the appropriate control channel.

Two types of bass management are provided. Type 1 reroutes LF from the main channels to the LFE channel via a level control and a 48dB/octave low pass filter at 80Hz, 100Hz or 120Hz. Two parameter sets feed either -15dB from mains to LFE and LFE to LFE at -5dB, or mains to LFE at 0dB and LFE to LFE at +10dB. Type 2 takes the LFE channel and reroutes

it to the main channels with the same crossover frequency options but fixed distribution levels. The downmixing options allow a limited amount of control over the attenuation applied. Although the range of level control is limited in both bass management and downmixing, the values chosen are in common use and this is less likely to lead to confusion.

Sampling rates from 44.1kHz to 96kHz are supported, all at 24-bit resolution. However, only the analogue and AES-EBU connections support rates over 48kHz. Since this is a digital device it has to be synchronised with the digital devices it is connected to. There is no internal clock so the reference must come from one of the inputs or word clock.

If it fits your circumstances, the DS-M7.1 makes a lot of sense. If you need a monitor controller that can sum several surround inputs or returns then it is probably not for you since the only way to achieve this with the DS-M7.1 is by using spare console inputs and buses.

If your requirements are comparatively simple, to monitor and route between a digital console's outputs and one or two digital recorders, then the DS-M7.1 will fulfil the role admirably. While set-up could be more convenient, day to day operation quickly becomes instinctive.



Monitor controllers have to compete with all manner of other stuff for valuable surface real-estate so there is always a tension between designing an intuitive and clear user interface and keeping the size down. The DS-M7.1 is at the larger end of the class. I would have laid the keys out a little differently but, especially with monitor control, everyone has their own idea of what should be where. Currently in a class on its own as the only standalone digital monitor controller, the DS-M7.1 is surprisingly well priced. Tascam has spotted a niche and filled it. ■



I-O

There are two sets of monitor outputs, analogue and AES-EBU both on 25-pin D-sub. This is especially welcome since it provides for connecting metering as well as speakers. The digital output can be taken before or after the downmix and bass management functions.

Apart from the built in I-O, Tascam has provided three card slots as alternatives – if you use a slot you lose one of the built in connections. Thus Console I-O is TDIF or Slot 1, Tracking Recorder is TDIF or Slot 2, and Insert is AES-EBU or Slot 3. For the Master Recorder, three sets of I-O are provided: TDIF, ADAT or AES-EBU. The Stereo Control Room inputs are XLR.

The control surface can be connected to either the front or rear of the main unit and a further 9-pin D-sub will allow for future software updates. A 3.5mm stereo jack enables simple switch remote control of the Mute and Dim functions. Word clock is BNC.

Control surface

The main display is deceptively large and brightly back-lit with four rows of 20 characters. Several menus are quite lengthy and vertical scrolling with the horizontally arranged cursor keys takes a while to get used to. Underneath the display are five function keys and the latching shift key with LED indicator.

There is only a single layer of shifted functions and this is all admirably clear. A rotary encoder makes parameter setting less tedious than using the cursor keys. The centre section is concerned with mute control. Nine internally illuminated keys enable each of the possible speaker outputs to be individually muted or soloed depending on the currently selected mode of the mute/solo key. Solo can be exclusive or additive. LEDs beneath

each Mute key indicate which channels are in use with the current format.

The Alternate Speaker key switches between the main surround mix and an LR downmix routed to the LC RC channels. If you want to use alternative speakers in 7.1 you will need a separate switch to route the LC and RC outputs. Surround Stereo switches between the current console input surround format and stereo from the master analogue input.

A bright red LED numeric display indicates the current SPL reference level when the unit has been properly calibrated, and an encoder knob adjusts the level in 1dB steps between 65dB and 109dB, 5dB steps from 0dB to 65dB. Beneath this are a further six keys. Bus/Return is the tape/direct or comp check key. I would have preferred to see this given greater prominence and ideally to have been separated from the rest. Downmix/Mono switches between the current surround mode and the selected downmix format or, when used with shift, downmixes to mono. Mute All does what it says, Test turns pink noise on and off when in set-up mode, and Bass Management turns the current bass management set-up on and off. Dim lowers the output by a user-selectable amount, default is 20dB.

PROS

Maintains all digital path, all the way to the speakers if you wish; intuitive in operation; reasonable cost for 7.1 capable unit; dual outputs allow for metering.

CONS

No summing of multiple surround inputs; set-up could be more intuitive; big control panel uses real estate.

Contact

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