

# PRODUCTION PARTNER

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MIXING DESK IN PRACTICE

## It's the anniversary of the Yamaha DM7





Image: David Heuer

Visualization of the dynamics including the history of level curve, gain reduction and the set threshold

MIXING DESK IN PRACTICE

# It's the anniversary of the Yamaha DM7

The DM7 has been on the market for about a year now. After initial supply shortage which resulted in a hunt for the few models out there, it is now available from most distributors. So, it's time to take another detailed look at Yamaha's latest addition to the family, which follows in the footsteps of the CL/QL series.

written by David Heuer | images: Yamaha, David Heuer

In case you haven't seen the consoles in the real world yet, at first glance, you might think: "Wow, I'd imaged it to be bigger." Both consoles are incredibly compact considering their range of functions. The large version can easily be lifted onto the table by one person, and you can reach all the controls without moving your upper body. The compact 19" version offers the same range of functions, it's just that the inputs are limited to 72 instead of 120. Regarding the outputs, the DM7 Compact has an identically generous 48 mixes, twelve matrix outs and two stereo buses. This offers plenty of scope for console files that are prepared for every scenario. No more need to save groups due to a lack of resources.

The user interface of the big brother comes with two 12.1" multi-touch screens that seem to offer a high-resolution image. The small DM7 has one 12.1" multi-touch screen. In addition, both consoles have a 7" utility screen.

### Connectivity

There surely was no skimping going on here: The DM7 provides 32 analog inputs and 16 analog outputs, while the Compact provides 16 inputs and 16 outputs - definitely enough to be well-prepared in the control room or at the FoH. There is redundant access to the Dante world with 144 ins/outs. That may sound like an awful lot, but it can be used effectively and make sense - if, in addition to the buses, a multi-track recording needs to be provided, for example. Another possible scenario might be a multi-track feed

from a main and a backup machine that's to be managed on the input side. In this case, 144 channels are quickly used up. The concept is definitely well thought out, and - wild scenarios aside - you will rarely reach the limits in practice.

In addition to a timecode input and five GPIOs, as well as a word clock in/out, the DM7 offers 2 x AES in/out. The Compact only has one AES output.

The USB-C port behaves like an audio interface with 18 ins/outs. The included VST rack license makes it possible to integrate your favorite VST plugins easily, with low latency. Unfortunately, the 18 ins/outs are not enough for a useful multi-track recording. 32 or 64 ins/outs would have been desirable here. There is also a new card slot: The previous MY cards were limited to 16 ins/outs. The new PY slot can manage 64 ins/outs. A MADI card is currently available, but unfortunately it does not offer any optical ports. That would have been helpful for the broadcast world. There is also an AES card with 8 ins/outs and a MIDI/GPI card, which expands the console with five more GPIOs, in addition to the MIDI ports. The redundant power supplies, which are built directly into the console, mark a mindful solution. This also makes the series very interesting for broadcast and other sensitive applications.

### DM 7 Control

The DM7 Control Unit is available as an option. This offers two additional faders, a DAW jog wheel (Yamaha used to



**Audio Follow Video Feature** After the trigger is set off, one or more defined channels open with a definable open and close time and an offset time

have this, some of you may remember) and 16 freely assignable buttons, as well as four freely assignable potentiometers. In addition, there is a section for monitor control, a 3D panning area plus buttons and a display for scene management. The controller can either be mounted directly onto the console or placed externally. The signal connection takes place via network. A redundant power supply is not directly on board, but can be implemented using an exter-

nal power supply. What makes the controller particularly exciting: It comes with both expansion licenses that Yamaha offers for the console.

### Software licenses: „Broadcast Package“

Tailored to the broadcast market, the package offers loudness metering directly in the console. The metering can be freely routed.

## Manuel Jörs: faster workflows

Manuel Jörs, FoH engineer from Hanover, is an „early adopter“. He owns one of the first consoles that was on the German market. He now even has both a DM7 and a DM7 Compact.

Manuel ordered the console right from the start without looking too closely at the features: A successor to the well-known and proven CL/QL series was enough of a selling point for him to jump on that train. He was particularly excited about the second display. However, he was initially skeptical about whether he would miss dedicated encoders. But, after the first jobs and initial experiences, these doubts were dispelled. The new concept offers him a „sped-up“ feeling to his workflow. He uses the color-coded encoders below the screen in combination with the four freely assignable user-defined encoders, which he has assigned to frequently used functions like gain. This means that he can work in a more organized manner, especially because there are no more potentiometers on the display. He particularly praises the bus routing with the encoders beneath the display. He also praises the ability to enter predefined values by touch (0 dB / -6 dB). When asked about „killer features“, his first answer is sequential patching.

Previously, Manuel often worked on the old series with Waves WNS and F6. With the DaNSe and the 4-band dynamic EQ, his laptop can now remain closed, even if he still wants the 6-band version known from the Rivage series. This strips the setup

down and makes it more reliable. However, he is still missing a good de-esser and a brickwall limiter in the style of the L2.

Manuel did not use the extension - simply for reasons of size.

He finds the packages interesting, but not essential. Nevertheless, he has tried the EX and the Broadcast Package, but for his own use, he does not see the advantages in relation to the price. In the loudness metering of the Broadcast Package, he is missing the loudness history as known from the TC Clarity.

As an early user, he experienced some of the teething issues of the series, but most of them were fixed by an update. The response time of the graphics, for example when switching layers, is still a bit slow. Most importantly: Manuel has not experienced a freeze or crash so far.

In general, he praises the user interface. „Of course there are more complex submenus now, but the range of functions has also been greatly expanded.“ In general, he sees the Yamaha DNA in the DM7 and finds functions in the places where he would expect them from his experience. In terms of feel, he criticizes the low material thickness of the fader board. Nevertheless, it does not give him the impression of being poorly made. According to him, faders, buttons and potentiometers have the usual material quality.

His conclusion: Manuel likes the desk and, above all, the GUI has made his workflow as a FoH engineer significantly faster.



**Bus Sends** with buttons for -6 dB and 0 dB



**Sequential patching** allows, for example, 64 channels to be patched in a single operation

„Backstop PFL“ allows the faders to mechanically lock slightly above the lower stop. If you pull the fader past this stop to the lower stop, the selected channel goes into PFL mode. This is a practical solution if you want to quickly listen in during the broadcast to see whether, for example, the microphone of a live broadcast is working before you raise the fader a few seconds later.

„Mix Minus“ converts a mix bus into an N-1. If you assign one or more inputs to this channel, the mix will contain a mix of all other channels except the defined „minus channels“. „Mix Minus“ is particularly useful in live productions where external guests are added. For example, in an interview broadcast, the mix is needed so that the assigned guest can hear all other participants in the conversation, but not their own voice, to avoid feedback or echoes. In addition to a few other functions, 5.1 surround will also be added in the future via an update.

An „Audio Follow Video“ feature has also been implemented now. Unfortunately, this only allows the GPIOs as a trigger so far. Additional trigger options via the network would be desirable here. After the trigger is set off, one or more defined channels open with a definable open and close time and also an offset time. Yamaha has copied the right features from the large broadcast consoles. That makes the DM7 very interesting for small broadcast applications! This means that, for example, players or camera at-

mospheres can be automated on the image mixer. The theater package of the Yamaha DM7 mixer is specially adapted to the requirements of theater productions and includes, for example, an actor library which allows specific EQ and dynamic settings to be defined for a changing actor in a channel.

„DCA Scene Grid“ enables cross-scene changes to the DCA assignments in a matrix-like view.

### Features: Split mode

The split mode allows the two bays to be separated from each other on the large DM7. The two halves of the console then behave like two independent consoles. The available resources (inputs/buses, etc.) are divided when activated. In this way, for example, FoH and monitor mix or PA and broadcast sound can be controlled by two operators at the same time on one console. A split mode is also possible on the DM7 Compact. This then divides the console into 2 x 36 inputs, each with its own scene management. Since there is only one display here, this can then be switched between the two halves of the console.

In addition to the scenarios mentioned above, the mode may also be interesting for small festivals with guest mixers. The host then takes over the supporting program without a second console. The guests can go wild on the virtual half of the console without affecting the basic setup.



**Noise Reduction Plugin** After years of denoise experience on tour to reduce ambient noise, we used Danse with the current DM7 for tidy broadcast sound mixes

## Output Port Delay

We all know the practical function from the QL and CL series where you can assign a level and a delay it to all output ports. With the PM series, the function suddenly disappeared. Well, good news: it's back! With the DM7, you can assign gain to all outputs. For example, I can distribute a sum across several zones and level them without having to do this in a downstream matrix. And I can also set delays again. However, I only have a resource pool of 20 delays which I can distribute freely. Previously, this was possible without assignment in each output. Why this step backwards?

## A/B Input

As already known from the Rivage series, an A and B input can now be defined in each channel. For example, you could patch a backup mic to the B input and activate it with the push of a button. Or you could also quickly switch to a virtual sound check using this.

## Patching

The issue of patching has been solved in a very practical manner. In addition to the grid view known from the Rivage series, there are also very clear list views. In particular, the sequential patching known from other manufacturers makes the work particularly fast. This means that, for example, 64 channels can be patched in a single process. Unfortunately, there is still a small bug in the current version (autumn 2024): the Dante names are not displayed in the

channel patch, but this should be fixed in the next software version.

## Channel Strip

Each channel offers two freely definable dynamic units. In addition to the effects already known from previous series such as compressors and gates, the channel now also has a new „FET limiter“ and a „diode bridge compressor“. The order of dynamics, EQ and inserts can be freely selected.

Now everyone can answer the famous question for themselves. EQ before or after the compressor? The visualization of the dynamics, which shows a history of the level curve with the set threshold and the resulting gain reduction, is particularly well done.

## Noise suppressor DaNSe

Already recognized from the Rivage series, but sorely missed in CL and QL is the DaNSe: Based on the hardware from Cedar or the WNS plugin by Waves, the DaNSe enables the reduction of noise in the signal. This is very helpful in noisy environments or against loud fan noise on stage.

## Assist

The assist function is currently still marked as beta release. It can initially automate selected gains or selected faders. As soon as a „function“ has been assigned to the desired channels via the channel icon, the „virtual assistant“ can be activated. This then intervenes in the gain or the faders

within specified parameters. It's a great idea - as a result, for example, you can have the assistant handle a small panel discussion on a side stage while you focus on the main stage. Or you can let the assistant do the work and concentrate on other tasks. It remains to be seen how well the function does the job in practice - but it's an exciting first step into the future. It's safe to say that more will follow down the line.

**Software**

As with the previous series, an offline editor and an iPad app are available. Just like in the Rivage series, the offline editor is a copy of the console interface. It offers access to almost all functions. If you want to test the functionality of the optional packages (theater and broadcast), you can do this easily with the editor. The licenses can be activated in the offline editor if required.

**Comparison with the QL series**

The DM7 is undoubtedly the successor to the QL5 and the DM7 Compact to the QL1. However, with the two models being almost identical in size, you get significantly "more horsepower under the hood". The immense connectivity, the number of channels, the number of buses and, last but not least, the resources for inserts and FX far surpass the older siblings. Here's a brief comparison:

- Dugan Automixer: No longer uses any "rack space", but there are generally 64 channels available. This also no longer uses any inserts. The Dugan is inserted post fader in each channel and only needs to be activated.



- Inserts: A whopping four inserts per channel instead of two are now possible.
- FX Rack: Access to the DaNSe, which was previously only available in the PM series
- The DM7 Compact also has 16 analog outputs instead of eight like the QL1
- PY 64 CH slot card instead of the MY 16 CH slot card
- The DM7 has two large bay displays and a utility screen, compared to the QL5

**Review and outlook on practice**

It is unusual for Yamaha that some teething issues were reported in the initial phase. Normally, the motto is that almost nothing can bring a Yamaha console down. However, the current version has already fixed many of these initial bugs and it is running as stable as usual. The next version 1.6 is scheduled for the end of October / beginning of November and it will bring a number of new features, along with further bug fixes.

Apart from that, Yamaha has made a big splash here and got a great feature list into a very small package. Many large rental companies have already updated their inventory with the series. The price/performance ratio is unbeatable. And fans of the CL/QL series will certainly be able to get used consoles quite cheaply soon.

The DM7 will certainly become an integral part of the Yamaha family and could set a new standard in many areas. It remains exciting to see how Yamaha will continue to expand the system with future updates. ■

<b>Basic facts DM7</b>	
	
<b>DM7</b>	<b>DM7 Compact</b>
120 inputs	72 inputs
Busses: 48 mix + 12 matrix + 2 stereo	Busses: 48 mix + 12 matrix + 2 stereo
Fader: 28 (12 + 12 + 4)	Fader: 16 (12 + 4)
Measuerements: 793 mm x 324 mm x 564 mm	Measuerements: 793 mm x 324 mm x 564 mm
Weight: 23.5 kg	Weight: 16.5 kg