



HIT PARADE

Billie Eilish's new tour
is hard and soft,
spectacular and intimate

Photos & text: Steve Jennings

SOFT

her *Hit Me Hard and Soft: The Tour*, Billie Eilish commands the stage. The tour embraces the title of her third studio perfectly pairing powerful (hard) moments with intimate (soft) segments. The album, which she again wrote, recorded, and produced with her brother Finneas, features the top-five singles “LUNCH” and “Birds of a Feather.”

The production is an unusual blend of spectacle and intimacy. In *Racket*, Keith Harris writes, “An in-the-round setup reinforced the evening’s intimacy. At the center of the arena was a rectangular stage, and at the center of the stage was a cage-like and vaguely sinister metal cube that looked as though it’d be left unassembled in a horror movie. When engaged it emitted a solid white light; sometimes it served as a platform that lifted Eilish above the stage. A live band was situated in pits on either side, like on the bridge of an Imperial Star Destroyer.” Lindsay Zoladz, *New York Times*, adds, “The platform was rimmed with lights and lasers that created vibrantly hued effects or, when a song called for something simpler, a minimalist atmosphere that allowed Eilish’s kinetic charisma to illuminate the arena.”

And Najya S. Gauze, writing in *The Harvard Crimson*, notes that the lighting design “consistently matched and



Eilish “wanted an in-the-round experience with the audience creating proximity with her fans,” Mikou says.

elevated the spirit of the tracks Eilish played—colorful and cartoon-like for ‘LUNCH,’ flashing black and white for ‘NDA,’ red for ‘Oxytocin,’ and a fitting green for ‘Guess.’ Pyrotechnics literally brought the heat during songs like ‘Therefore I Am,’ ‘bury a friend,’ and ‘Happier Than Ever.’ The lighting also brought the energy down when needed—a lone spotlight shone down on Eilish as she performed her sadder, quieter songs such as ‘lovely,’ ‘idontwannabeyouanymore,’ ‘Ocean Eyes,’ and ‘when the party’s over.’ One engaging aspect of the show was the vlog-style camera Eilish occasionally carried around. She took fans with her as she ran across the venue, posing with band members, security staff, and audience members along the way.”

Tarik Mikou, creative/show director

Mikou is creative director at Montréal-based Moment Factory. He worked closely with Eilish on bringing the show’s vision to life. “I aimed to shape all ideas in a way that seamlessly aligned with Billie’s artistic identity and her vision for each song, to deliver an exciting experience that deeply resonated with her fans,” he says. “This involved working on stage design ideas that would create the ultimate experience for fans—a show that feels deeply personal, intimate, and yet grand in scope as a large-scale production should. My role was to merge creative visual content, lighting, and stage elements seamlessly into a

single, cohesive experience. We also worked closely with production to coordinate staging logistics, balancing the big-picture creative direction with the technical execution, ensuring Billie's vision was realized in a way that resonated powerfully with the audience."

From the start, Mikou says, "She wanted an in-the-round experience with the audience creating proximity with her fans. This gets her closer to more of the audience than you would with an end-stage or by adding an extended ramp. From there, we worked closely with her to develop and refine the overall design, ensuring that visual, lighting, and stage elements aligned with her artistic vision. It was a true collaboration—bringing her ideas to life while also pushing creative and technical boundaries to craft a show."

The Moment Factory team designed a stage that incorporates surprises throughout the show. Production manager James Richardson, tour production manager Nicole Massey, and Mikou worked closely with TAIT on staging and automation. "TAIT ensured seamless movement and a bold, dynamic setup," Mikou notes. "The full LED floor added another layer of impact, transforming the stage into an ever-changing visual canvas that heightens the energy and emotion of the performance."

Mikou asked lighting designer Ben Dalglish to join the tour for his lighting expertise. "I wanted to ensure that every audience member, no matter where they were seat-

ed, felt equally engaged. It wasn't just about illuminating the stage and songs but seamlessly blending with the visuals and stage design. We created surprising visual components with the lighting. With Billie, we carefully programmed movements, color palettes, and intensity shifts, helping to create an emotional arc throughout the show. It makes Billie's performance feel intimate and explosive.

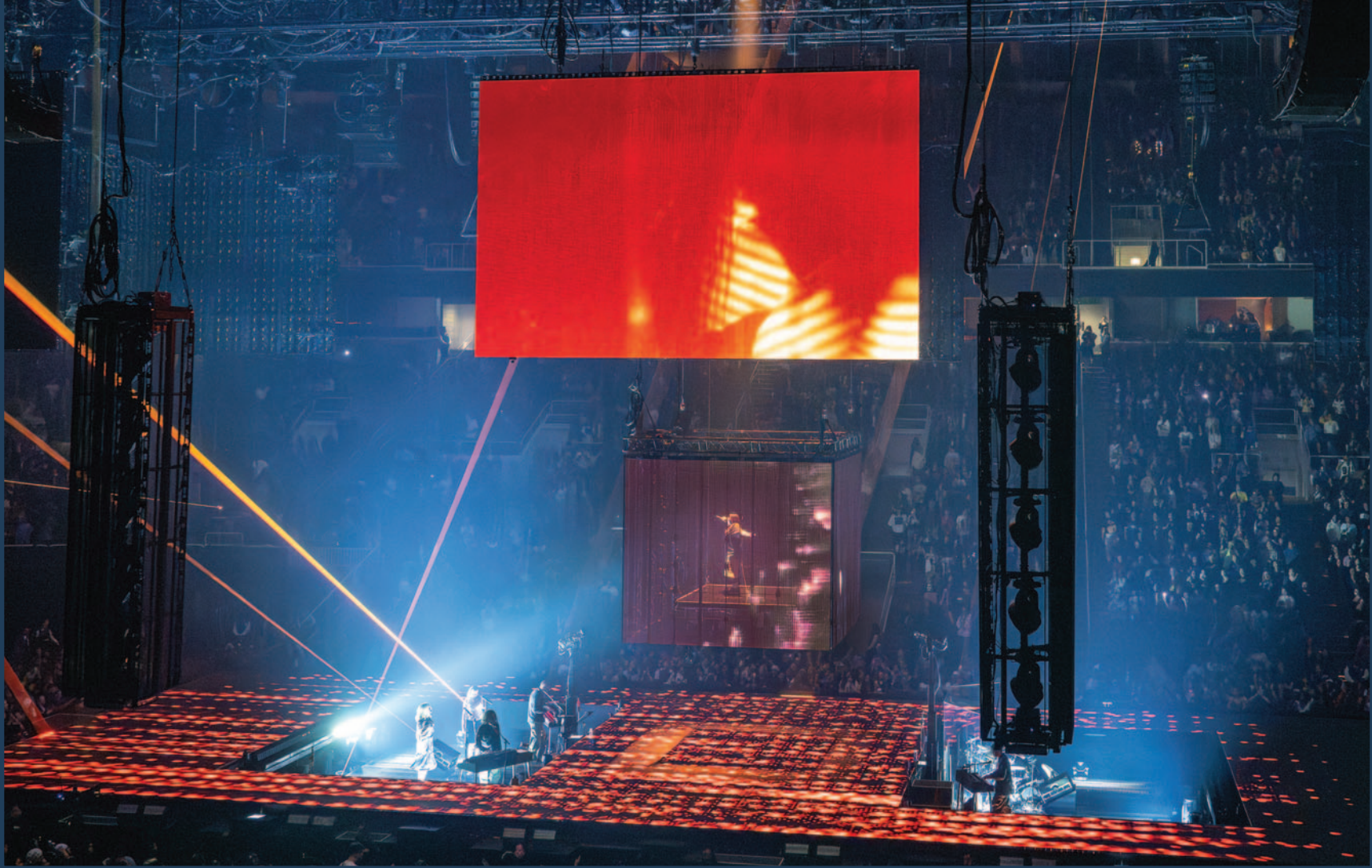
Daniel Jean, producer, Moment Factory

"Our video content seamlessly moves between the floor and overhead screens, swelling in sync with the music to create orchestrated impacts without overpowering the performance," Jean says. "It was important for our creative team and Billie to create the right balance between the live cameras and content. With our camera director, Stuart Mercer, who we love collaborating with, we created a unique 360 cinematic experience for the audience. The intention was to fully incorporate the artist and her band into the different content environments, giving fans fresh perspectives and revealing unexpected points of view as well as giving the camera to Billie on certain songs."

Ben Dalglish, Kasper Iseger, lighting designers

Dalglish and Iseger, of the creative studio Human Person, first collaborated with Eilish in 2022, designing lighting for





Above and opposite: The band pits are breaks in the video floor. “We placed some insanely bright lights under the grated deck of the band, paired with big profiles in the back, adding a lot of smoke,” Iseger says. Above: The transparent cube that Eilish moves up and down in consists of ROE Visual V8 panels.

her *Happier Than Ever World Tour*.

For *Hit Me Hard and Soft*, the designers started by working on Eilish’s album promo appearances, including her performance on *The Late Show with Stephen Colbert*. “This performance was particularly exciting for Kasper and me because it was nominated for an Emmy Award for lighting design, a huge honor,” Dagleish says. “Kasper and I collaborate on a wide range of projects through Human Person, but working with Billie Eilish holds a special significance—her *Happier Than Ever Tour* was the first full project we worked on together.”

Dagleish says a 360 show comes with challenges, but he and Iseger had a head start because Eilish’s album-release shows, which they also designed, were also in the round. “They gave us a solid foundation for understanding how to light not only the stage but also the atmosphere and audience in a way that made every seat feel like the best in the house.” A key focus involved lighting the audience dynamically, with different parts of the arena being highlighted at specific moments. “When it came to the stage logistics, there were a lot of unique challenges, especially as the show features automation, tracking screens,

and other moving elements. The biggest hurdle was managing weight distribution. To accommodate the automation and LED elements in the center of the arena, most of our lighting had to be positioned along the sides of the arena bowl.”

Dagleish and Iseger worked closely with Upstaging, the tour’s lighting provider, and TAIT to find creative hanging positions, attaching lights to the backs of screens and flying platforms. “This collaborative approach was essential for making the show visually stunning, and it was all made possible thanks to an incredible team,” Dagleish says. “Nicole Massey, Billie’s production manager, and James Richardson [Moment Factory Producer], were instrumental in ensuring everything came together seamlessly.”

“Lighting the audience dynamically was a priority,” Iseger adds. “We did not want to take a crowd wash approach; we wanted to make the crowd feel part of the show. During programming in the arena, we spent a lot of time walking around in the seats to get an idea of how the show feels for everyone. The ‘band pits,’ as we called them during rehearsals, were designed to be breaks in the video floor. Our design intention was to make these areas big

while keeping the clean shapes of the stage alive. We placed some insanely bright lights under the grated deck of the band, paired with big profiles in the back, adding a lot of smoke to achieve the dynamic objective. This resulted in the band not feeling like a separate part of the stage but more in line with the show.”

Roeland Schuijren, a lighting programmer from the Netherlands, was brought in for the project. “He was the right fit for our creative minds,” Iseger says. “Roeland was able to transform our hand-gesture creative ideas to some of the best-programmed cues in the show. His creativity and unparalleled speed of programming helped us in achieving bold lighting statements and the accents that make the Billie Eilish show a one-of-a-kind.”

Dagleish says the relationship between Billie Eilish and Upstaging goes back a long way, and it’s the consistency, reliability, and positive attitude from the Upstaging team that makes the partnership successful. “We were incredibly fortunate to work with Hudd [John Huddleston] and [Dan] Curley at Upstaging, alongside lighting crew chief Benji Meserole and his amazing crew, to bring this rig to life. We relied heavily on Upstaging’s custom shop to fabricate clamps and mounting solutions to position lights in unique and challenging locations—wedged between LED screens, riser elements, and other tight spaces. No matter how complex the request, they handled it with ease, a testament to their expertise and problem-solving approach.”

The rig features a mix of reliable and high-performing LED fixtures, chosen for their brightness and consistency. Dagleish says one standout is the Elation PULSE range of strobes, including the PULSE PANEL FX, the PULSE PANEL, and the PULSE BAR L and S. “These are placed throughout the stage, including the eight automated towers surrounding it. Each tower holds eight PULSE BARs, which shoot out from all four sides of the rectangular structures through blow-through LED screens, creating a stunning multi-directional visual effect.”

Color is another crucial element for Eilish, notes Dagleish, who says she wanted fixtures capable of producing vibrant, high-quality hues that would look great on the high-definition IMAG cameras. “The Elation fixtures delivered beautifully on that front. We also used a large number of CHAUVET [Professional] COLORado PXL Curve 12s. These fixtures lined the stage on every axis, pulling double duty. On one hand, they served as eye candy, mimicking waves for songs like ‘Ocean Eyes.’ On the other, they acted as footlights, providing key lighting for Billie as she moved around the stage.”

A personal favorite, Dagleish adds, is the TMB Solaris Flare XL120. “We only use two, but they make a huge impact. These are the kind of lights that cost as much as a small car, but they pack just as much power.” Positioned directly in the center of the stage, they create a dramatic “god light” effect as Eilish is lifted inside the cube plat-

form. To complement the lighting rig, plenty of smoke machines and hazers fill the vast space. “Lastly, we have 21 Robe iFORTE FollowSpots, which are the latest and greatest from Robe’s automated followspot range. These were instrumental in following Billie seamlessly across the arena-spanning stage, even with all the automation and moving elements in play. The system allowed us to light her in beautifully saturated colors no matter where she went or how the stage configuration shifted, ensuring a visually cohesive and stunning show.”

Iseger says choosing fixtures for the tour was not easy. “The show requires a lot of attention to detail; even the slightest vocal accents, drum rim shots, or guitar wipes are accented in lights. Upstaging helped us by proposing different new fixtures. For the eight big, automated towers in the arena, we wanted to bring some big punch but also soft touches when needed. The GLP X5 IP Maxx was the right fit for this versatile job. Not only were we able to impress with geometric cage-focused beams during the song ‘NDA’ but we were also able to apply bubble-like effects on the individual cells during the underwater-themed song ‘I’llomilo.’ By carefully selecting the right fixtures for each moment we also focused on ensuring they worked in harmony. We created a bounce-like effect over all the fixtures in the show—to sweep the crowd into the song like they’re a string on the bass guitar—which had to fill the entire room.”

Running the numbers, the rig includes 88 Elation PULSE Panel FX units, 68 Elation PROTEUS MAXIMUS units, 68 Elation PULSE BAR S units, 68 CHAUVET Professional PXL Curve 12s, 61 Elation PULSE BAR Ls, 56 ACME Lighting LEOs, 40 GLP impression X5 IP Maxx units, 32 CHAUVET Professional Color STRIKE Ms, 18 Wahlberg Motion Design Lighting Columns, 17 Robe iFORTE LTX units, 14 Martin MAC Aura XIPs, four Elation SÖL Par units, two TMB Solaris Flare XL120s, six MDG theONE hazers, six High End Systems FG-100s, and three hazebase BaseHazers.

Olivia McGahan, Bishop Sforza, followspot operators

McGahan and Sforza, from Upstaging, operate the Follow-Me system, which utilizes a combination of Track-iT auto tracking and a manual Follow-Me backup. “The system uses 36 Follow-Me anchor antennas both aerial and on the stage itself,” McGahan says. “RF tracking tags are given to the performer as needed. As an operator, it is my responsibility to install and calibrate the system in preparation for the show. During the show, Bishop and I are on standby if needed; the system works in tandem with the lighting console, so the front of house has primary control of all Follow-Me-designated fixtures. This system negates the need for the normal ‘standby’ and ‘Go’ spot calls. Utilizing the position information generated by the Follow-Me



Above: In the PA are eight clusters of 20-deep Cohesion CO10s, and two hangs of eight-deep CO10s on the far sides of the stage to cover the floor on the goal ends. There are four end-fire arrays consisting of two hangs of three CP218s each. On the ground are 12 clusters of three CP218s in cardioid, plus 24 CO8s for front fills.

Track-iT system, we can share that information, using PSN, with other departments.”

Stu Merser, video director

Merger is owner of Vis-A-Vis Video Ltd., a provider of video production and event technology solutions, specializing in creating audiovisuals for live events, film, and television. “Being brought on as video director again for Billie Eilish’s *HMHAS Tour*, after previously working on her *Happier Than Ever* and *When We All Fall Asleep Tours*, was a remarkable opportunity and a deeply rewarding experience,” he says. Vis-A-Vis was entrusted with overseeing all visual elements for the tour, ensuring they aligned seamlessly with Eilish’s artistic vision. “The challenge of balancing high-energy visuals with more vulnerable moments was one of the most rewarding aspects of the project. Every visual element was designed to heighten the emotional impact of Billie’s performance; it was incredibly fulfilling.”

“Our screens director and Disguise programmer, Andi [Andréanne Fine Lafrance], and I first worked together at

XR Studios a number of years ago and she has been my go-to media server programmer ever since. I’ve enjoyed working with her on many projects including Billie’s *Happier Than Ever Tour* and *The Sphere: Las Vegas*.”

Three companies provided video elements: Vis-A-Vis Video, LED Shed, and PRG. “Vis-A-Vis supplied UHD 4K cinema cameras and control (Super 35mm), Disguise GX 3 media servers with Lightware [Visual Engineering] M2-32x32 matrix for our custom-made 12G fiber system, AGITOs with ARRI SRH stabilized heads, Fuji’s new Duvo range of PL lenses, Vislink 4K wireless video systems, and four M/E vision mixing desks. My goal was to incorporate the same high-end filmmaking technology used in documentaries and movies to give the audience a live cinematic experience every night. This required a careful selection of cameras, lenses, grip equipment, and experienced operators, ensuring that the technical setup could consistently deliver this immersive quality across every venue.”

LED Shed supplied 306 ROE Visual V4ST LED panels, 140 ROE Visual V8 LED panels, five Brompton Technology SX40 LED processors, 13 Brompton XD distribution units,



"Each tower holds eight [Elation] PULSE BARs, which shoot out from all four sides of the rectangular structures through blow-through LED screens, creating a stunning multi-directional visual effect," Dalgleish says.

2.3km of Belden tactical fiber cable with Fibreco HMA expanded beam connectors for data distribution, and 2.1km of Socapex cable for power distribution in addition to 16-by-16 HDMI 2.0 matrices for video distribution to the LED processors and monitors.

The main LED screens above the stage are 11m-by-10m rectangles that track open to reveal more LED screens, creating 11m-by-32m rectangles. The whole tracking rectangle is 5m high. The total resolution in the open position is 3,888 by 1,080 for the long sides and 2,376 by 1,080 for the ends. ROE's new flagship V4ST has a pixel pitch of 4.6mm. The total quantity is 290 sq. m. or 290 LED panels. The LED Shed transparent cube that Eilish moves up and down in is 4m-by-4m-by-4m, with each side being 4m-by-4m. The resolution of each side is 448 by 448. The ROE V8 product has a pixel pitch of 8.9mm.

PRG supplied 235 sq. m. of YesTech MG7S for the LED floor, 120 ROE V8T LED panels, two Brompton SX40 LED processors for the ROE panels, four NovaStar NovaPro UHD Jr LED processors for the YesTech panels. There is a total quantity of 940 LED panels. Each LED tower is a column with three external sides clad in ROE V8T panels. The total quantity is 120 LED panels.

"Brompton Technology supplied us with five Tessera SX40 processors, 13 Tessera XD distribution units with 306 Tessera R2+ receiving cards," Merseur says. "We purchased all the Brompton kit via ROE [supported by Adam Callaway and Sebastian Kanabar from Brompton]. The Brompton kit allows us to efficiently distribute video data to the LED panels. The LED processor receives video data via HDMI and deals with all the complexity of ensuring the right portion of the video signal is displayed by the right LED panel. It also ensures that the LED panels are uniform with the correct intensity and color reproduction that matches the look and feel of the show. The Brompton system allows us to take lots of individual LED panels and turn them into one big screen that looks exactly as desired."

Adam Stuart, FOH engineer

Stuart's first tour with Eilish started with an album promo in April 2024. He mixes the tour on a DiGiCo Quantum 7. "It has been my board of choice for years; it fits this show with its capacity to handle large channel counts and an abundance of routing and I/O options. Beyond the transparent sound, I am extremely comfortable with the intuitive layout. There is a lot of automation throughout the show and time code and MIDI makes it an easy choice for my workflow."

Stuart notes that he uses DiGiCo's Spice Rack processing suite in a few instances. "On my band bus, I use the Chilli 6 with a side chain from the vocal bus. I also use the Naga 6 on other instrument groups to do some very light dynamic EQing. As the DiGiCo has a pretty limited number of onboard effects, most all of my processing is done off the console with either Waves or analog processing."

In other cases, Stuart relies on outboard gear. "On Billie's vocal, I am using a Rupert Neve Shelford Channel into an Empirical Labs Distressor. I'm also using Distressors on the Snare Drums. I use a Funk Logic DD-301 to add some color. I use Bricasti M7s for vocal reverb, piano reverb, and guitar reverb, depending on the song. I rely on Waves to do a lot of the heavy lifting; working with the musical director, it has given us a lot of flexibility to recreate what they've done in the studio. On drums, I love the SSL EV2 channel strips. My drum room verb is the Abbey Road Chambers. I use a variety of reverbs throughout the show for snare, toms, guitars, pianos, and vocals also use H-Verb, R-Verb, Magma Spring Verb, CLA-Epic, and H-Delay. The F6 can help tame trouble spots and clean areas in the mix that get crowded easily. On my master bus, I use the Abbey Road TG Mastering Live, C4, LL3LL, and Saphira."

Quality of coverage is the first thing Stuart looks for in a PA design. "The Cohesion Audio CO10 does an amazing job of translating smooth coverage at all angles. Another important factor is fitting the PA into the overall production design. All departments have to integrate as we are one cohesive show. The smaller Cohesion CO10 boxes allowed me to get a higher box count that provides an extremely flexible vertical coverage from the floor to the top of the highest arenas in the country. The flown end-fire arrays and the evenly distributed subwoofer clusters on the ground provide an extremely even low end to every seat around the venue. We spent months of rehearsals working through the songs for the show. I use the Cohesion CP6s and CP118 as my reference. The move to the CO10s on a larger scale is extremely easy. The Cohesion allows me to make the mix I want, as opposed to trying to make a mix sound good on the box I have to use."

In the rig are eight clusters of 20-deep CO10s, and two hangs of eight-deep CO10s on the far sides of the stage to cover the floor on the goal ends. There are four end-fire arrays consisting of two hangs of three CP218s each. On the ground are 12 clusters of three CP218s in cardioid, plus 24 CO8s for front fills. All are powered by Lab.Gruppen PLM2044+ with a Direct.Out Prodigy MP as the system drive and matrix.

Salim Akram, monitor engineer

Akram mixes Eilish on an Allen & Heath DLive S7000 console. He says the DLive platform has been his console choice for many reasons; along with being user-friendly,

powerful, and versatile, he especially likes how modular and scalable the platform is. "I can scale down to the small 12-fader CTi1500 control surface on the same show file for a smaller acoustic or events where I need to occupy a smaller footprint without sacrificing my mix consistency." Akram's mix position is backstage in the arenas. "This is pretty nontraditional from what I've been accustomed to. Working with Billie, I've always had to think outside the box, so this scenario of having to mix backstage is no different. In this situation, it turns out to have some benefits from a mixing perspective because what I'm hearing is actually what I'm hearing. I have a multiview of all the performers on stage and everyone has talkback mics to communicate with me for notes, adjustments, etc."

For years, Eilish's vocal mic was the sE Electronics V7 on a Shure Axient, but Akram says they have recently switched the capsule to a Sennheiser MD 435 cardioid dynamic. "The only modification we've made on the mic transmitter is we added a push-to-talk button on it so she can talk to the crew privately during the show to let us know if she needs something. We are on Shure PSM1000s with P10R+ packs. We didn't really change up too much on this tour. Our monitor RF tech, Hugo Gudino Jr., is an absolute monster at coordinating, so we didn't have to make any huge tech upgrades to meet the RF needs for this iteration of the tour. We did our due diligence with

Hit Me Hard and Soft: The Tour

Production Crew:

Creative/Show Director: Tarik Mikou
Moment Factory Production Manager: James Richardson
Moment Factory Producer: Daniel Jean
Lighting Designers: Ben Dagleish, Kasper Iseger
Lighting Programmer: Roeland Schuijren
Lighting Director: Alyssa Milione
Lighting Crew Chief: Benji Meserole
Video Director: Stu Merser
Screens Director/D3 Programmer: Andréanne Fine Lafrance
FOH Engineer: Adam Stuart
Monitor Engineer: Salim Akram
Systems Engineer: Alex McCormack
Tour Manager: Jane Donald
Production Manager: Nicole Massey
Automation Operator: Eamon Keane
Follow-Me Ops: Olivia McGahan, Bishop Sforza
SFX Operator: Cosmin Bărbuceanu
Production Companies:
Lighting: Upstaging Inc.
Staging/Automation: TAIT
Screens/LED: LED Shed, PRG
Video Cameras/Control: Vis-A-Vis Video
LED Processing: Brompton Technology
Followspot Systems/Control: Follow-Me
SFX: Strictly FX
Audio: Clair Global



Strictly FX supplied the special effects, including smoke and the impressive pyro look seen above.

Sennheiser and Wiscomm but switching brands would have sonically and technically solved problems I didn't have."

For software-based processing, Akram is using two Waves Extreme C servers on an M2 Mac Mini running Waves Superrack for all of his vocal processing. "I also have two DAD Core 256s on two separate computers running Live Professor for all my time-based effects and redundancy. A majority of the reverbs and effects on her records were Valhalla Vintage, Room, and Soundtoys' Echoboy. For onboard effects, I'm using the DLive onboard multiband comp and dynamic EQ, the Dyna8, and a bunch of the new ultra FXs, like the Saturator and Spaces reverbs."

"For my outboard gear I'm using a Neve 5045 into a

Shelford channel for her guitar players vocal and I have a pair of Bricasti M7 for my drum reverbs. I haven't been able to get away with using anything like a primary source enhancer, 5045 or the Cedar DNS on her main vocal because the environment of the show with the crowd being so loud, they all have had a hard time determining what the 'primary source' is. But I use the 5045 and the Solid State Logic Sourcerer plug-in on her aux vocal channel which drives all of her vocal effects. I can get more aggressive with the processing on that channel since it doesn't go to her mix, with the intent being I can get as much of her actual vocal into the effect units."

The tour began in September and will conclude in July in Dublin, Ireland. 📶