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## Jonas Brothers

*The Happiness Begins Tour*

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# The Happiness Boys

The Jonas Brothers make a triumphant return with a slick, innovative design package

By: Sharon Stancavage  
Photos: Todd Kaplan



**H**appiness Begins is the name of the Jonas Brothers' current tour, with production design by the team at Silent House. "I was contacted by John Taylor, president of [the talent-management company] Philymack, in May to come for a meeting with the Jonas Brothers to discuss coming onboard for the tour," says Baz Halpin, of Silent House. "The Brothers, John Taylor [their musical director], and their creative director/musical director, Chase Foster, have all worked together for a long time and had a general idea of what they wanted to

reliance on props or scenic elements, whether there would be dancers or not, and so on."

The show required two central aspects. "We needed a versatile canvas to display the large-format short films that would carry a narrative through line, and we needed to bring the Brothers as close to as many people as possible in arenas," Halpin says. "I started sketching on the glass in our office and we came up with a mirrored hammerhead-style stage with a curved tracking screen. We curved the screen to give it a more cinematic feel."

The 52'-deep stage, fabricated by TAIT, has a 120'-



"This is a really high-energy show and there are very few moments when they are still for a second or two," McShane notes

achieve. They were looking for an overall producer for the tour to help bring their creative vision to life within a specific budget and set of logistical parameters." Halpin became the show's producer and Silent House was charged with handling the production and lighting design of the show.

"Chase Foster and production manager [and front-of-house sound engineer] Chris Nauda met with us at Silent House one afternoon," Halpin says. "We discussed what has traditionally worked for the band in the past in terms of layout, as well as the number of band members,

wide performance space. "The stage is lined in [flexible LED] and all of the risers are finished with a high-gloss Marlite. The flooring is a semi-gloss Harlequin product," notes Halpin.

The production also extends out into the audience "We created a walkway from one end of the arena to the other," Halpin says. "At the far end, we designed a fully functioning bar/VIP area that could accommodate up to 200 people, as well as space for a 16 x 16 stage with a triple-scissor/revolve lift to elevate the Brothers 16' above stage level."



Above: Pyro is a big part of the show and includes a custom product from Next FX. Opposite: The video screen, made of Saco S9 panels and supplied by Solotech, consists of three sections, each of which is 9' x 70' on a curve.

## Video

"The screen divides into three individual sections," Halpin explains. "Each section is 9' x 70' on a curve. The upstage screens travel vertically while the mid and top screens track both vertically and up/downstage." The screens are Saco S9s with a pixel pitch of 9mm, provided by Solotech; the firm is also the production's lighting vendor. "IMAG plays a big part in the show," Halpin says. "We have several Notch setups for IMAG integration with in 3D content environments but also as digital effects overlaying on top of the live cameras." In terms of details, video programmer Zach Peletz, of Earlybird Visual, explains, "IMAG varies from film-like grading to time-coded integration that allows for cityscape fly-throughs where, for example, IMAG appears on billboards. This was all facilitated by the integration of Notch and disguise [formerly D3 Technologies]. We used three disguise gx 2c servers utilizing Notch, PSN [PosiStageNet] integration with TAIT, and four 3G SDI camera inputs per server."

The Notch blocks were created by Silent Partners Studio. "Over the last few years," Peletz says, "Earlybird and Silent Partners have continually developed and refined

an approach to using Notch with Sockpuppet, which allows disguise to be programmed from a lighting console. The general overview is that we have a block with a layer per song, a set of standard parameters that are always available, and a set amount of wild-card parameters that are specific to each layer/song. This keeps our approach familiar and quick, yet also quite flexible." Video content was provided by J.T. Rooney, of Silent Partner, among others.

In terms of hardware, video director Rob McShane notes, "I am using a Grass Valley Korona 2 M/E switcher and Grass Valley cameras as well. I am using three long lenses (99x) at the front-of-house position, two handheld cameras in the pit, and a supplemental camera for the B stage, placed at the top of the lower bowl so I can get the shots when the B stage is 16' in the air. I also have two Panasonic robocams onstage and two Marshall POV cameras on the drum kit."

From a directing standpoint, McShane says, "My biggest challenge night after night would be just keeping up with the Brothers. This is a really high-energy show and there are very few moments when they are still for more

than a second or two. There are also several intimate moments when all three are on the video wall and having to keep the framings of the three cameras exactly the same can be challenging when they are constantly in motion. When they come off the stage and interact with the crowd, it can be tough to see what we want to see when there are hundreds of screaming girls around them.”

## Lighting

Alex Reardon, of Silent House, created a rig that comprises three curved front trusses filled with Claypaky Scenius Profiles and lined with GLP impression X4 Bar 20s. Lighting pods are located at upstage left and right, with a center cluster of three trusses running upstage to downstage; all are automated via a Tait Navigator system. “There are four principal workhorse fixtures in the rig,” Reardon says, “three of which we know and love: the Ayrton MagicBlade-FX [96 in total], GLP X4 Bar 20 [53], and the [TMB] Solaris Flare Q+LR [99].”

There is also a new fixture in the rig: the Ayrton Khamsin, a 750W LED profile that has 13 lenses, features a 158mm frontal lens, and delivers an 8:1 zoom ratio and a zoom range of 7° – 58°. “I was seriously impressed with the results from the Khamsin,” Reardon says. “There are a lot of fixtures at the moment that make very impressive claims, some of which translate into the real world; with the Khamsin, Ayrton has knocked this one out of the park. It

has a bright, uniform field, great color, and significant effects from the individual macro control of the LED engine. I’m watching to see what they come up with over the next few years, as the progress in LED has been so meteoric.”

The Khamsins and Solaris Flares are “in the pit and upstage/offstage of the set to give silhouette opportunities, to frame the set, and to expand the whole vision beyond its physical structure,” says Reardon. He has 118 Khamsins in his rig as well as 15 Vari-Lite VL4000 BeamWashes, eight VL4000 Spots, 10 Robe BMFL WashBeams, 16 TMB Solaris Mozart FLRs, and 24 Martin by Harman Scepton 10s.

For spotlights, Reardon says, “We’re using the Robe RoboSpot system. There are three upstage and six—paired to the controllers, one per brother—on a truss over the B stage for the front light. I am impressed with the smoothness and ease for operators, but this is the first time I’ve used the multi-head from one op functionality and it’s seamless.” For the spotlight system, there are Robe BMFL FollowSpots for the upstage lights, and Robe BMFL FollowSpot LTs for the front light.

Stage atmosphere is provided by two MDG theONE atmosphere generators. “They are utterly brilliant,” Reardon says. “I’ve always been rather OCD about haze, as I’m a firm believer that it is to light what processing is to sound. They are the best out there by far!” On the road, the show is being handled by lighting director Joey Troup.



## CONCERTS

Eric Marchwinski, of Earlybird Visual, programmed the show on an MA Lighting grandMA2 console. “We don’t sit down and say, ‘These songs need to have lots of cues and these ones don’t,” he says. “We have a general idea of the visual concept, usually dictated by the video content or other elements, and then we come up with interesting ways to extend those ideas into the lighting. Sometimes, simple visual ideas require complex technical things to achieve them under the hood; other times, something that looks quite complex requires very simple cuing. The music drives the approach for each song; the lighting is there to support this in a creative and interesting way.”

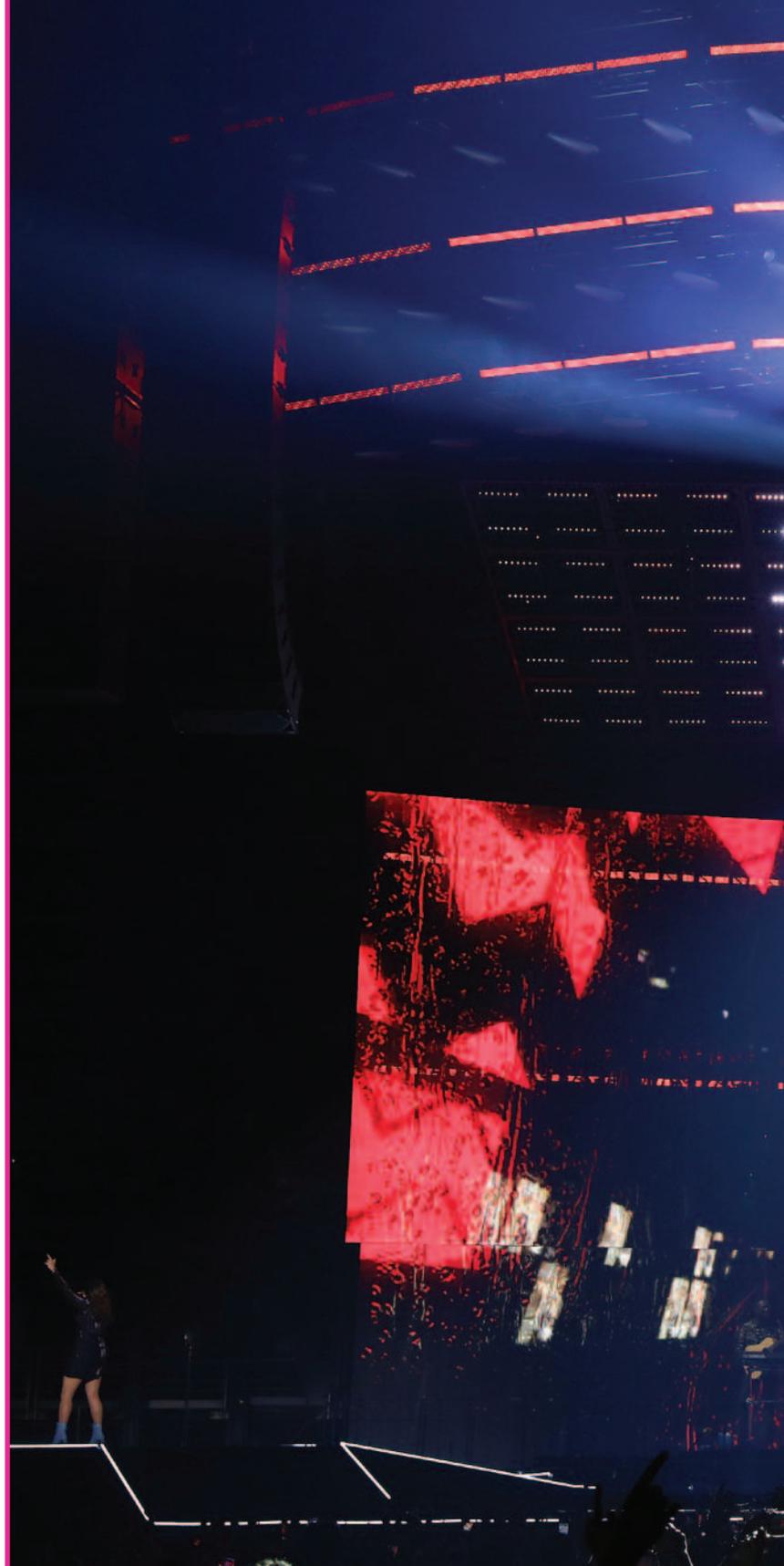
Surprisingly, he adds, “The show contains no pixel-mapping, although we have few things that look like they have been. Creative use of priority, multiline effects, and all presets resulted in a realistic-looking fire effect, fireworks effect, and other Easter eggs tucked throughout the show if you look close enough.”

Marchwinski also notes, “The automation created a few interesting challenges when it came to lighting the band and sometimes the Brothers in particular situations. The set and screens were able to move through a very large part of the area below the lighting rig, so keeping lights from spilling onto video walls was important. The rear RoboSpots were hung on the upstage side of the center pod, which was automated on four points, allowing it to move out of the way for additional automation, or reposition to complete an automation look. This meant that sometimes we obstructed the rear followspots, depending on the automation positions, and were left to find alternate ways to keep some backlight on them. The style of the show has them in front and back spots the entire time and, with no dancers and minimal band repositioning; all in all, the show is much more about musical dynamics than scenery or lighting people.”

Also, Marchwinski says, “It was a healthy challenge to continue to come up with interesting and new ideas using the lighting rig. With 28 potential songs in the set, the ‘typical’ random dimmer chase or circle ballyhoo gets old fast. We always strive to find the visual signature or personality for the song and to pick a concept or idea within the rig and stick to it. This exercise of discipline and approach yields an interesting show that doesn’t feel stale or full of repeated ideas. As you get to the last few songs—‘Sucker’ [the band’s current hit single] was actually programmed last—it takes a little more time to come up with something new.”

### Special effects

One of the keys to *Happiness* is special effects, notes Reid Derne, of Pyrotek: “Baz Halpin and Silent House, as well as Chase Foster, were looking for big moments that created an accent to what they were doing with the show



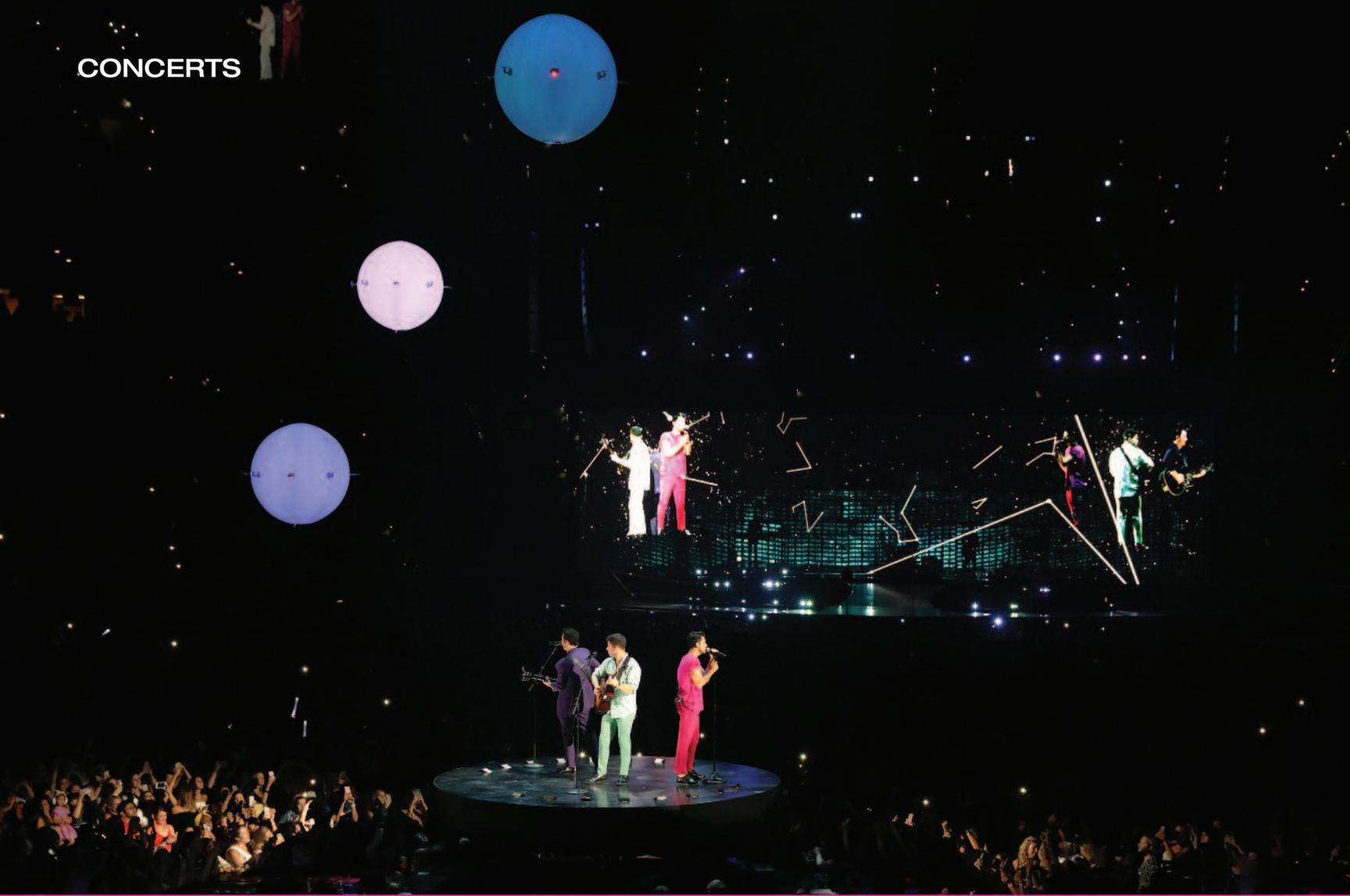
as a whole. We use a few different types of effects spread out through the whole set—gerbs, mines, comets, confetti, and fire.”



Reardon created a rig featuring three curved front trusses filled with Claypaky Scenius Profiles and lined with GLP Impression X4 Bar 20s.

The pyro also includes something unique. “One of my favorite cues is the Claymore mines that we had custom-made for this tour,” Derne says. “Baz was searching for a

specific look for this cue and we worked with Next FX to manufacture it. It is, essentially, a very fat, very fine glitter effect that goes 30’.” Pyro is driven via a Pyro Digital control



The AirOrbs, supplied th Airstage, in action, illuminated by RGBW LED units controlled from the lighting desk via RC4 Wireless RC4Magic S3 DMXio transceivers and DMX4dim dimmers.

system; others handled by an MA Lighting dot2 console.

No self-respecting pop show would be caught without confetti cannons, and the Jonas Brothers production delivers; the confetti appears during “Cake by The Ocean” and “Sucker.” “We have four Magic FX DMX-controlled confetti blowers spread out across the downstage,” Derne says. Flames—both literal and via video—appear during “Burnin’ Up.” “There are 12 Galaxis G-Flames in this show,” he adds. “These are spread out across the stage and in the truss.”

Helium-filled orbs—courtesy of Airstage—glide over the audience during “Hesitate,” when the band is on the B stage. “It’s a slow song and the AirOrbs float slowly around the stage as the Brothers serenade the audience,” Halpin explains. The trio of AirOrbs “are flown by three members of the lighting crew,” notes Airstage head of sales John R. Barker. “They had just four days of on-site training from Airstage before the first show in Miami. Each crew member flies one AirOrb.”

Each AirOrb is a “120cm-diameter radio-controlled unit

with plain white skin,” Barker adds. “Each has a helium filling, which gives them their lift, thus making them neutrally buoyant in the air. Around the circumference of the AirOrbs are eight 3D-printed motor supports with small electric motors. The motors turn our specially patented propellers, which are both extremely lightweight and also flexible. Concealed in the base of the AirOrb is a wide range of avionics, including motor controllers, stabilizers, lighting controllers, radio control system, and so on.

“Inside are programmable RGBW LED lighting units that uniformly lights up the skins of the AirOrbs,” Barker says. “The individual lighting on each AirOrb is controlled from the main lighting desk, with DMX provided though RC4 Wireless units; we have been using RC4 for some time now and are very happy with the results.” The production uses RC4 Wireless RC4Magic S3 DMXio transceivers and DMX4dim dimmers. “RC4 Wireless products have the lightest weight, the longest battery life and the highest wireless data security,” explains James David Smith, founder and chief product designer, RC4 Wireless. “These



The view from the B stage, showing the three-part curved upstage video wall.

qualities are always at the top of the list when we develop anything at RC4. By design, everything we make has been optimized for applications like the Jonas Brothers AirOrbs, as well as applications in costumes, hats, props, and set pieces of any size. This is our specialty—I've been doing this for 30 years—and we still get the thrill of seeing cool new ways to use RC4. This is definitely one of them!" Barker adds "The transport of [the AirOrbs], without damage, from one venue to another was a challenge, but, together with the local crew, we came up with a system of half-deflating them for transport. The smaller forms fit perfectly into large laundry trolley carts that are padded on the inside. This system allows for a quick breakdown and setup without applying unnecessary wear and tear on their skins by constantly sucking all of the helium out for transport. In just 30 minutes after flying, the three AirOrbs are safely stored in their carts." Halpin adds, "The production team is satisfied with the results so far and we hope to use the product in the future; it's efficient and can operate under any condition for any concert."

## Audio

At the front of house, Chris Nauda—who does double-duty as the tour's production manager—is mixing on a DiGiCo SD7 Quantum, the 32-bit version. "It can do anything," Nauda asserts.

For plug-ins, Nauda is using a SoundGrid Waves Extreme Server. "The C6 [multi-band compressor with sidechain] is the workhorse and is deployed where needed. I don't use that many plug-ins," he admits.

For his outboard gear, Nauda has a new front-of-house favorite: the Rupert Neve 5045 Primary Source Enhancer. "I have the 5045s on the vocals," he says. "These are clutch, especially when singing in front of our PA and on the B stage. They maximize gain before feedback." In addition, he says, "I use an API 2500 [stereo compressor] in combination with a GML 8200 [parametric equalizer] on the music bus. That glues everything together and adds sparkle.

"With five singers onstage, we have a few vocal mics," he continues. "Nick is singing into DPA d:facto 4018VL; he



Lighting pods are located upstage at left and right, with a center cluster of three trusses running upstage to downstage; all are automated by the TAIT Navigator system.

is somewhat of a quiet singer, so stage bleed is always present. This capsule has the most natural, pleasant-sounding stage bleed that I have found. Joe is on a Shure SM58, and it works fine. Kevin and our background vocalists are on DPA's d:facto 4018V; the clarity of them is superb."

When asked about drum mics, Nauda says, "I have a pretty standard Shure setup." For the kick-in, he's using a Shure Beta 91A and for the kick-out a Beta 52A. "Together, it's a nice musical beach ball with the right amount of click," he notes. On the snare top, there's the Shure SM58, while the bottom has a Shure Beta 181. "This gives it a natural sound, and the condenser on the bottom helps with crispness," he says. "I also have Shure Beta 181s on the high hats. They're easy to place and eliminate snare bleed."

Easy mounting is the reason that Nauda has Shure Beta 98a microphones on two of the toms. There's a third tom with a Shure Beta 52A. "The big tom gets a big mic," he says. As for the overheads, he has Shure KSM32s. "The 32 is a darker overhead mic that doesn't overpower the

high frequencies," he says. Percussion has "a bunch of SM57s; I've also been using AKG C414s for perc overheads, since they are crisp in the high frequency," he adds.

Unusually, Nauda says, "I mix the show from backstage. It's a great listening environment but can be a challenge making sure the mix translates in the arena."

The PA features a Clair Global Cohesion CO-12 system. "I like the consistent coverage and clarity, and Clair's support and staff are world-class," Nauda says.

The rig includes sixteen CO-12s per side for the main hang, sixteen i3 cabinets per side for the side hang, and 10 i-DL cabinets per side for the 270 hang. "We have six flown CP218 subs per side in cardioid, three ground CP218 subs per side underneath the front apron of our stage build, and six CP-6 cabinets hanging under stage along downstage edge of the apron for front fill," he says.

The Jonas Brothers' *Happiness Begins Tour* continues in the US until December; it moves into Europe after the first of the year. 📶