

The Cast

Mrs. Mills piano: Manufactured in Hamburg, Germany, in 1905 by Steinway & Sons, this exquisite piano was made before the word “upright” was designated to describe a piano whose harp was perpendicular to the ground, rather than horizontal as on a grand piano. It came into Abbey Road’s possession in 1953. Steinway called it the *Verte-grand*, but a recording artist named Mrs. Mills recorded with the instrument so often that it was christened the “Mrs. Mills piano.” Two procedures have made this piano sound unique. First, at the request of Abbey Road’s pop engineer Stuart Eltham, a technician from Steinway treated all of the piano’s hammers with a lacquer that hardened and produces a sort of tack-piano sound. Second, the Mrs. Mills piano has been tuned in a way that makes it sound out of tune – but in a very pleasant way, like some beaten-up barroom piano only better. Although we were warned not to try tuning the Mrs. Mills piano because, as an Abbey Road spokesperson claimed, “Are you crazy? It’s never been tuned,” someone occasionally must tune it ... in a very special way to give it a natural chorusing effect. Thanks to its lacquered hammers, the Mrs. Mills piano produces a bright, cut-through-the-mix sound, and it responds very dynamically to varying note velocities.

Challen studio piano: Sounding more like a typical home piano than the Mrs. Mills, the Challen piano offers a warm tone along with an unusually long sustain in its notes. As with the Mrs. Mills, tuning was an issue in regards to the Challen during our sampling sessions. Not that it couldn’t be tuned, but two different piano tuners visited to handle the task over the two-day sampling process for the instrument. Did you realize that no one knows how to tune a piano? That is, no one but the tuner who makes this claim. “Who tuned this piano?” asked the gentleman who came the second day. “It’s out of tune! Whoever tuned it yesterday didn’t have any idea about what he was doing.” We tried to stop him because we’d already sampled half of the Challen’s notes the previous day, and we were afraid he would use a different tuning method, make the piano sound entirely different, and cause us to have to resample all of the notes we’d already sampled. Thankfully, despite his argument, the piano sounded as if it were in the same tuning as it was the day before.



THE MICROPHONES

AKG C12: AKG – which stands for Akustische und Kino-Gerate, or Acoustic and Film Equipment in English – introduced the vacuum-tube C12 condenser mic in 1953. The C12 provides a total of nine switch-selectable polar patterns, including omnidirectional, cardioid, and bidirectional, along with transitional pickup patterns. Unlike later versions of this mic, the early-production C12 model such as those found at Abbey Road doesn't have a stellar high-frequency response, but it's a dandy for getting low-pitched content and, in this application connected directly to the old EMI TG12345 console, it allowed us to record the Player's View audio perspective of the complex overtones produced by the Premier Tubular Bells at Abbey Road Studios.

AKG D19C: This rare dynamic mic also came to be during the mid-1950s, but Abbey Road waited to buy some in 1963. Sadly, the studio only has one D19C left. (Perhaps they sounded so good for overhead-miking drums, many visiting musicians “accidentally” stuffed them into their gig bags.) Originally intended for speech, the D19C offers a cardioid pickup pattern and does an excellent job of catching high-frequency sounds. This model looks beaten up and dented, which was most likely due to it being used to record

Ringo Starr's drums and it took a good drumstick-whacking or two. For the *Abbey Road Keyboards* sessions, we chose the D19C for sampling both the Mrs. Mills and Challen pianos and the Mellotron Model 400. For the pianos, the mic's signals were routed through a Revolution R.47 mic preamp, which features vacuum tubes that are essentially identical to those in the old REDD.51 mixing console used prior to the introduction of the solid-state TG12345 console. Signals from the D19C then continue on to a vintage Fairchild Model-660 tube compressor/limiter. Not that the audio recorded in this manner actually was compressed or limited in any way, but we added the Fairchild into the mix, so that it could impart its unique sound quality onto incoming audio signals. The D19C was responsible for capturing the high-frequency content of both the Mrs. Mills and Challen pianos. As for the Mellotron, we mounted the D19C up close to one of the Jensen speakers in a Fender Deluxe Reverb cabinet that was driven by a Fender Bassman 135 amp head to capture the sounds from the Mellotron Model 400. The D19C's audio was then fed to a Siemens V72s mic preamp followed by an Altec RS124 compressor to shape and caress the Mellotron's moody timbres.

CHALLEN PIANO



Ambience Neumann M50
A/B Stereo, going through the EMI TG 12345 console.
Position: 7 meters distance, 7 meters apart and 3.5 meters up from the floor.



Classic Top
AKG D19C
Mono, going through a Redd.47 Mic pre-amp.
Then going through a 660 Fairchild compressor.
Position: top, close.



Close
Neumann U67
X/Y Stereo, going through a Fairman Mic pre-amp.
Position: front, close.

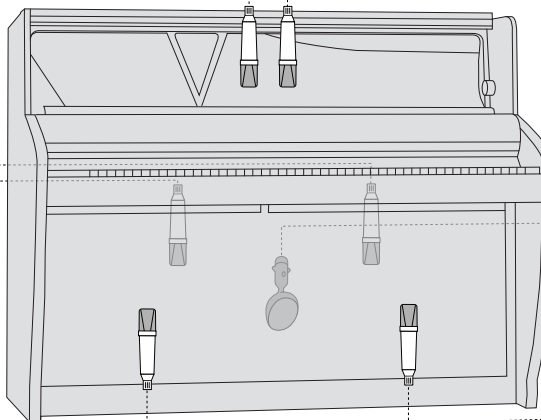
Classic Back
Neumann U67
Mono, going through the EMI TG 12345 console.
Position: 1.5-2 meters distance.



Back
Neumann U67
A/B Stereo, going through the EMI TG 12345 console.
Position: back, close.

Bottom
STC/Coles 4038
Mono, going through the EMI TG 12345 console.
Position: backside, close distance.

Front
Neumann U67
A/B Stereo, going through the EMI TG 12345 console.
Position: front, close.



HAMMOND RT-3 & LESLIE MODEL 122

