



## Overdubbing on Twin-Track

Though the Beatles were quite capable of laying down impressive live takes, George Martin felt that certain songs would benefit from additional contributions and embellishments. “We couldn’t overdub too much on two-track, obviously, but we did,” he said. “We generally did things live.” Certainly the basic tracks were recorded live, with the band playing and singing simultaneously. However, of the 28 tracks that comprised the Beatles’ first two LPs, a full 20 of them received overdubs, performed by the Beatles themselves or by George Martin.

Twin-Track overdubbing – or “superimposition” in EMI parlance of the day – was not like modern overdubbing. The BTR3 Twin-Track was not a true multi-track machine; it lacked independent erase heads, so it was impossible to record on one track while preserving the other. The only means of overdubbing on these early Beatles sessions involved the use of two Twin-Track tape machines. “What we had to do,” recalls Norman Smith, “was to record the backing first of all, or for that matter it could have been a full vocal cut as well. And if we wanted any overdubs, what we had to do was to send that tape from a stereo machine onto another stereo machine, adding whatever one wanted to add on to that particular recording on the second machine.”

The group would fill one Twin-Track tape as usual; instruments on one track, vocals on the other. This tape would then be played back while the group – listening through a “White Elephant” speaker on the studio floor – performed additional parts, such as harmonica, handclaps, piano or vocals. The combination of the previously recorded tape and the Beatles’ new additions would be mixed at the desk and simultaneously recorded onto another Twin-Track tape machine [see diagram, this page].

Working with Twin-Track-to-Twin-Track overdubs meant that the balance between the previously recorded material and the new material had to be established at the time of recording, as the two would be forever locked together. Norman Smith did make things a bit easier on himself by generally “grouping” his overdubs appropriately: instrumental overdubs would typically end up superimposed onto the second-generation instrumental track (Track 1 on the second tape machine), and vocals would typically end up superimposed on the second-generation vocal track (Track 2 on the second tape machine). This meant that the final Twin-Track tape still maintained the same separation between the backing and voice that had existed on the original Twin-Track tape, allowing levels to be adjusted during the final mix session.

The overdubbing process could be repeated as many times as desired in order to add all necessary parts. However, excessive overdubbing was typically avoided due to the fact that the previously recorded material moved down one generation in sound quality with each overdub;