

Expert Shows Possible

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The instructional booklet for the German-made Uher Universal 5000 tape recorder used by President Nixon's secretary, Rose Mary Woods, to transcribe the Watergate tapes contains this sentence, "Although faulty handling is almost impossible due to the unique design of the recorder, we still recommend to study the following instructions carefully."

In a reconstruction of the

circumstances in which Miss Woods said she accidentally erased 18 minutes of a June 20, 1972, conversation between Mr. Nixon and former White House chief of staff H.R. Haldeman, a tape recorder technician advanced two possible theories to explain the error.

Peter Zervas said that in eight years with the Uher distributors in Washington, Robert Dawson, Inc., he has received only three complaints of accidental erasure. In all three cases he

was unable to tell whether the problem was accidental erasure or a failure to record in the first instance.

His two theories:

- In her haste to answer the telephone that she testified rang while she was transcribing the tape, Miss Woods missed the "pause" button and hit another button two inches away, one labeled "recording." Under this theory she would then have to have kept her foot continuously on the "play" pedal of the floor control

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Tape Erasure

for the duration of the gap in the tape—18 minutes and 15 seconds. The foot control panel has two controls—"play" and "rewind." Miss Woods testified before Judge Sirica that she thought the telephone conversation lasted about 5½ minutes, not 18 minutes.

- The second theory explains the presence of an audible tone on the 18 minutes of erased tape, but requires that Miss Woods made a second mistake in the operation of the recorder. This explanation also presumes she mistakenly depressed the "record" button at the start of her telephone conversation. If at the end of the call, she switched her foot from the "play" to the "rewind" pedal with the "record" button erroneously still depressed many minutes of tape could be wiped away in seconds. In a test at The Washington Post yesterday this produced a tone similar to the one described.

The \$500 Uher Universal 5000 combines the roles of tape recorder and dictating machine. With each new recorder comes a 95-page, four-language explanation of the operation of the machine and the numerous accessories. Depending on the function the recorder is used for, three tape speeds are offered. The faster the speed the higher the fidelity.

For recordings of long-playing time and good quality, Uher recommends a speed of one and seven-eighths inches of tape per second.

Miss Wood testified she was listening to the tapes on

headphones—thus cutting out the loudspeaker—and controlling the progress of the tape with a foot pedal while she recorded the conversations on her electric typewriter. With continuous foot pressure the tape could be either played or rewound at will without touching the seven organ-type keys on the machine.

According to Zervas, secretaries wishing to momentarily halt the transcription as Miss Woods did would either remove their foot from the pedal, or hit the "pause" button.

If she mistakenly engaged the "record" button, the tape would continue to run—erasing any existing recording—for as long as she kept depressing the "play" pedal with her foot.

In a test of this theory supervised by Zervas an existing recording was erased and replaced by a low hiss unlike the 18-minute hum on the Watergate tape.

In a test of Zervas' second theory, he was able to reproduce a hum or whistle on the erased tape, but only by hypothesizing that Miss Woods unwittingly used the machine's fast erasure feature. Zervas demonstrated that at fast rewind with the record button still engaged, 18 minutes of tape recorded at one and seven-eighths inches per second would be obliterated in only 20 seconds.

However, Miss Woods testified yesterday she discovered her error immediately on ending the telephone conversation and made no mention of engaging the fast erasure process.