



Transferring old Grundig-type Audio Cassette Recordings

The DC International® audio cassette format was developed more than half a century ago. The first portable DCI recorder was launched in 1965, as a contender to Philips' Compact Cassette®. We have refurbished two units of this very rare cassette recorder to offer digital transfer service of the old DCI tape recordings.

The concept of placing audio tape reels into a plastic container was already around in the late 1950s. The containers were first called cartridges, but later came to be known as cassettes. Previously, almost all audio tape media were 'open' which the operator needed to carefully wrap and thread before use. Not so with cassettes; they could simply be tossed into the machine for recording and playback.

In 1963, the Philips company devised their Compact Cassette system. A few years later Grundig, a German company introduced similar format they had christened a Double Cassette International. The CC and DCI recorders co-existed until around 1970. They were the new, easy-to-use consumer-oriented music media. Quite soon, however, the DCI began to vanish from the market – and public mind.

A DCI cassette has two lateral reels in the shell, just like the CC. But there are some rather obvious differences between the two. The DCI cassette is somewhat larger, but the tape width and speed are almost identical to the CC. Ostensibly, as a result of Philips' liberal licensing policy, the CC was soon being favoured, adopted and supported by an ever-increasing number of manufacturers of the consumer electronics industry, particularly from Japan.

Both formats were initially designed to fulfil requirements for dictation-quality audio only. At this stage, Grundig's DCI had only a marginal support of other manufacturers (Blaupunkt, as far as this writer knows). Also, Philips engineers had a wider perspective with CC; they went for stereo, a 2-channel, and 4-track format. The DCI, it seems, never evolved as a stereo tape sound carrier, before Grundig decided to shelve the format.



Figure 1. DCI cassette disassembled.



Figure 2. CC and DCI tape recesses compared.

Some sources claim the DCI uses a wider tape than the CC (3.81 mm). In fact, the tape widths are the same, as well as the structure of the tape recess design quite similar to the CC standard.



Figure 3. DCI cassettes came with removable record-prevention tabs.

Since the DCI cassette recorders (Grundig C 100/L) were made in the mid 1960s, they use a set of ancient Germanium transistors. Therefore, we equipped these machines with modern low-noise preamplifiers.

As can be seen below, the mechanism of these British-made(!) units are relatively robust. A belt-driven tape transport with two flywheels is used. One flywheel acts as a capstan shaft, but the other is just providing additional inertia and tape speed stability.

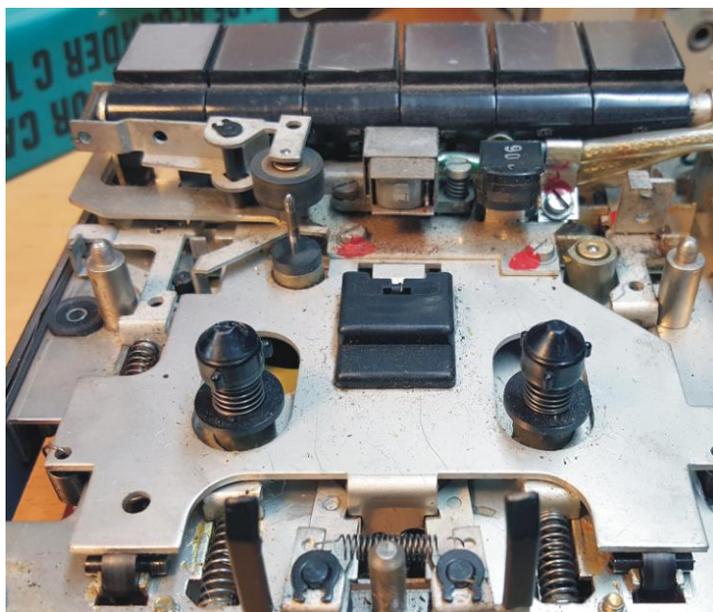


Figure 2. Grundig C 100 tape transport before restoration.

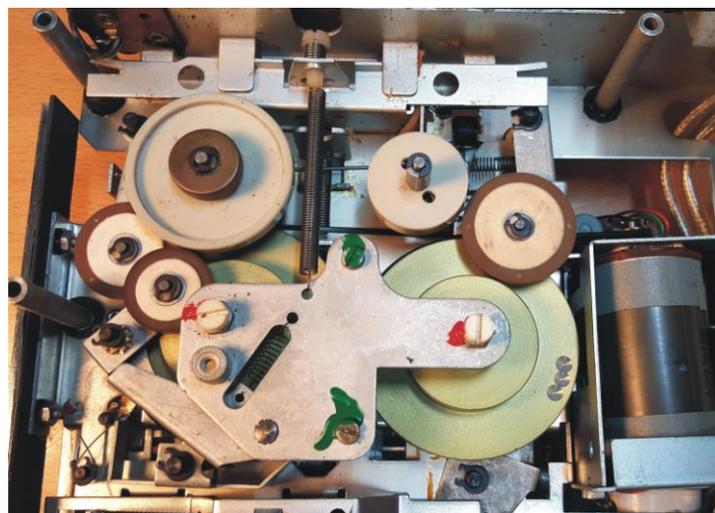


Figure 3. The C 100 a belt-driven tape transport, based on two flywheels. One has a capstan shaft, while the other is just providing additional inertia.

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