

Video Tape Recorder

Transcript

Every VTR [Video Tape Recorder] needs to move tape from a supply wheel, past video and audio heads, and onto a take-up reel. In the Sony AV3650, the tape drive uses a dual motor system. Mounted below the reel panel, in the base of the machine, are the drum motor and the capstan motor. When the function lever is used, the cams and the push rods on the base of the deck engage the transport, spin the idler pulley driven by the drum motor, and move the rubber tires into the appropriate position based on which function is selected with the lever, such as forward play or rewind. At the same time, the drum motor uses the single belt system to spin the head drum pulley, which moves the video heads inside the drum. The capstan has its own motor that works with a pinch roller and servo electronics so that it can maintain the proper relationship between the speeds of both the heads and the tape as it rolls onto the take-up reel. The deck's tape tension system uses a brake on the supply wheel made of foam fabric. It restricts movement of the supply wheel and establishes the proper tension for video playback, and also plays a role in adjusting tension for skew control. As the tape moves through its path, the video heads are running at about 1,800 RPM, reading the tracks on tape. The recorded signal from the tape is read from the slip rings at the top of the scanner, sent through the brushes, and out to the V1 and V2 boards for processing and demodulation. And then on to the video outputs on the back of the machine for viewing. [video clip]