U

U: A term used to define the unit of height in a rack-mounted assembly. A one-U device is $1\frac{3}{4}$ " high (44mm). A two-U device is twice as tall, etc.

UART: Universal Asynchronous Receiver Transmitter. An integrated circuit that carries out the function of asynchronous, bi-directional communication between a microprocessor and a *serial* interface. In MIDI, it is a part of the interface that forms the link between the processor and the MIDI sockets.

UHF: Ultra High Frequency. The band of television broadcast frequencies reserved by the FCC for local and community-access stations, local weather services, stock reports, etc.; channels 14 and higher. Compare with *VHF*.

ultrasonic: Having frequencies above the normal range of human hearing, i.e., higher than about 20kHz.

Ultra ATA: See IDE.

Ultra-Stereo: See stereo optical print.

U-Matic: A video tape recorder format developed by Sony for professional use. A $\frac{3}{4}$ " helical scan video cassette, it has become the world standard for industrial and semi-pro videotape productions. This machine is also used in conjunction with a Sony PCM 1610 or PCM 1630 encoder to record digital audio instead of video.

una corda: One string. Used in piano music to indicate the use of the soft pedal. See tre corda.

unadvertised specials: In film, sounds that appear on a track, but whose presence is not noted on the *cue sheet*.

unbalanced lines: Any transmission line in which the two conductors are at different potentials with respect to ground. In an unbalanced connection, the ground conductor does doubleduty, completing the electrical circuit and serving as a *shield*. Compare with *balanced line*.

undermodulation: A situation which occurs when the *amplitude* of a signal falls well below the optimum level in a recording or broadcasting system, causing it to be masked by *noise*. In digital systems, undermodulation can lead to *distortion*. See *overmodulation*.

underscore: Music that provides atmospheric or emotional background to the primary dialog or narration onscreen to emphasize the action.

unidirectional microphone: Any microphone in which the pick-up pattern exhibits more sensitivity to sounds approaching on-axis, i.e., any variation of the *cardioid* pattern, such as a *supercardioid* or hypercardioid. See also directional microphone, omnidirectional microphone, polar pattern.

unison: Two notes, or musical lines, which have the same *pitch*. Also used less precisely to include a musical line played or sung in *octaves*.

unit: A single reel of edited *mag film*, corresponding to a given picture reel. The unit can be either *single-stripe* or *fullcoat*, and will usually contain *fill leader* in order to maintain sync with the picture reel.

U

unity gain: A device which neither attenuates nor amplifies a signal. Most signal processing devices have unity gain, which means that they neither amplify sound nor cause *insertion loss*, and therefore can be added into an audio system at various places without upsetting the overall gain of the system.

Universal System Exclusive: A part of System-Exclusive which is intended for all equipment, irrespective of manufacturer. The message uses one of three particular ID numbers after the *SOX* status byte: 125 is for non-commercial or academic use; 126 is for non-real-time use and includes messages for MTC Set-Up, SDS, MIDI File Dump, Bulk Tuning, and GM; 127 is for real-time use and includes MTC Full Message, User Bits, Show Control, Notation, Device Control, Machine Control, Single-Note Retuning messages, Master Balance, Master Volume, and Real-Time MTC Cueing.

Unregistered Parameter Number (NRPN): See Registered Parameter Number.

upbeat: See beat.

update mode: In console *automation*, the operating mode in which previously written automation data is read back to its respective input faders for alteration by the engineer. The position of each fader at the beginning of an *update take* is defined by the system as its *null-point*. If the engineer leaves these faders at their initial levels throughout the take, no data will be changed. Any fader movement above or below a null point is read in dB, and that track's data changed to reflect the same dB change from the previously written signal level. This updated data is then stored for later use.

USB: Universal Serial Bus. The new slow-peripheral (i.e., keyboard, mouse) interface technology from Apple Computer.

user bits: (1) A group of 32 bits within the 80-bit *SMPTE timecode* message which is available to users for their own purposes, such as recording tape identity numbers, dates, etc. (2) Also, a System-Exclusive message of the real-time type which implements the SMPTE timecode message described in user bits.

UV-22: See dither.