

# DOW2 DIGITAL CASSETTE TRANSCRIBER

## *FOR NOISY AND DIFFICULT-TO-UNDERSTAND TAPE RECORDINGS*

- Built-in two-speed, mono/stereo cassette deck with pitch control
- Panel and foot pedal controls
- 240 second solid state memory (120 second in stereo) for repeated playback (looping)
- Noise removal audio filters
- Dual headphone jacks
- Connects to other audio sources
- Reduces operator fatigue and improves transcript accuracy



**DIGITAL AUDIO COMPANY**

*The Leader In Law Enforcement And Security Audio Processing*

## Transcriber, and More...

The DOW2 is similar to commercial transcribers with panel or foot pedal controls for stop, play, fast forward and rewind. The built-in two-speed (15/16 ips and 1 7/8 ips) cassette tape deck plays both mono and stereo tapes. A pitch control is also available. The wedge shaped enclosure makes the panel controls easily accessible.

Two features make the DOW2 particularly applicable for transcribing law enforcement tapes, which are usually corrupted with background noise. First, the DOW2 has a built-in solid state buffer (memory) for remembering the last 240 seconds (mono, or 120 seconds stereo) of audio played through the unit. The audio can then be played repeatedly (looped) from the digital memory without the cumbersome task of playing and rewinding the tape. This also prevents damage to the tape due to multiple rewind/play operations. This looping often helps to make difficult-to-understand words or phrases intelligible. The audio loop length can be adjusted from 0.2 to 20.0 seconds. Using the shuttle control, the audio loop can be precisely defined.

The second feature is the "Voice Processor" for noise removal. It includes a digital adaptive filter for automatic removal of time-correlated audio signals such as music, hum, tones, muffling, reverberations, and echoes. A rumble (highpass) filter for removing bass room noises below 200 Hz and an adjustable hiss (lowpass) filter for removing noises above specified cutoff frequencies between 3.5 and 7.0 kHz are also available. In addition, the Voice Processor includes an automatic gain control (AGC) to equalize voice levels in near-party/far-party conversations.

## Also an Enhancement Tool

The DOW2 can accept audio from any analog source through the auxiliary jacks on the rear of the unit. Since the Voice Processor operates in real time, it can be used for audio enhancement when monitoring live conversations. Stereo line outputs on the rear panel may be connected to amplified speakers for group listening or to another recorder for making a tape of the enhanced audio.

### DOW2 SPECIFICATIONS

#### Tape Transport

- Type • Phi Deck, dual-speed, stereo cassette tape deck.
- Speed • Low=15/16 ips; High= 1 7/8 ips.
- Pitch Adjustment • +/- 10%.
- Wow and Flutter • At low speed: 0.15% WRMS Max.  
• At high speed: 0.10% WRMS Max.
- Signal to Noise Ratio • >45 dB.

#### Analog

- Analog Conversion • Stereo 16 bit A/D 64x oversampling sigma-delta.  
• Stereo 16 bit D/A 64x oversampling delta-sigma.
- Sample Rate • 17.5 kHz.
- Bandwidth • 80-8000 Hz.
- Line Outputs • +8 dBm nominal into 600  $\Omega$  load.  
Stereo rear panel phono jacks.
- Headphone Outputs • Two stereo 1/4" headphone jacks for 8  $\Omega$  sets.  
• Volume control with LEFT/STEREO/RIGHT selector switch.
- Auxiliary Inputs • Rear panel stereo line input phono jacks, selectable in lieu of cassette deck audio.

#### Enhancement Filters

- Noise Filters • Two 50th order LMS adaptive predictive deconvolvers.
- Hiss Filters • Two 20th order linear phase FIR digital filters adjustable cutoff from 3.5 to 8 kHz.
- Rumble Filters • Two four-pole, active Butterworth filters -24 dB/octave rolloff below 200 Hz.

#### Buffer Operations

- Capacity • 2 minutes stereo, 4 minutes mono.
- Loop Time • Continuously adjustable 0.2 to 20 seconds.
- Auto Loop • Can be configured to automatically loop every time tape is stopped.

#### Digital Processor

- Microprocessor TMS320C50 40 MIPS DSP control processor.
- Memory • 8 MB DRAM Buffer (standard).  
• 120-second audio capacity in stereo mode, 240 seconds in mono mode.

#### Packaging

- Enclosure • 10x12x4 inch aluminum and walnut enclosure with sloping front panel.
- Power • 120/240 VAC (automatic voltage selection), 50-60 Hz, 50 W.
- Displays • 5 digit LED time display (MM:SS.S).  
• Illuminated soft keys.
- Foot Pedal • Tri-function transcriber footswitch.

• Specifications are subject to change without notice

